Expression of Interest (EOI) & Pre-Qualification

Provision of Services of Staff Augmentation of IT Experts for Various Projects of PITB under Framework Contract

Punjab Information Technology Board (PITB), Government of the Punjab, invites proposals for Expression of Interest & Pre-Qualification from valid registered, reputable and well-experienced software houses / IT companies etc. for Provision of Services of Staff Augmentation of IT Experts for Various Projects of PITB under Framework Contract.

2. The objective of this Expression of Interest (EOI) & Pre-Qualification (PQ) is to invite proposals for Provision of Services of Staff Augmentation of IT Experts for Various Projects of PITB under Framework Contract and to Pre-Qualify software houses / IT companies for RFP Stage. Complete scope of services and requirements are given in the EOI & PQ Document. The EOI & PQ Document carrying all details is available at **www.pitb.gov.pk** and **www.ppra.punjab.gov.pk**.
3. A single package containing EOI & Pre-Qualification Proposals, duly completed, signed, stamped, sealed and in complete conformity with EOI & PQ Document should be dropped, in the Tender Box No.1 placed at Reception of the PITB office, 13th Floor, Arfa Software Technology Park, 346-B, Ferozepur Road, Lahore, no later than **1200** Hours on last date of submission of EOI & Pre-Qualification Proposals i.e. **20th October, 2020** and the proposals shall be opened at **1230** hours on the same date, as per PPRA Rules, 2014.
4. Income / Sales tax registration certificate and other documents as mentioned in EOI & Pre-Qualification Document must accompany the proposals.

PITB management may reject all proposals at any time prior to the acceptance of a proposal, as provided under Rule-35 of Punjab Procurement Rules, 2014.

Director (Development & Procurement)
Punjab Information Technology Board
13th Floor, Arfa Software Technology Park, 346-B, Ferozepur Road, Lahore.
Ph: (042) 35880062, Fax (042) 99232123
Web: www.pitb.gov.pk

IPL-8386

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EXPRESSION OF INTEREST &
PRE-QUALIFICATION DOCUMENT

FOR

PROVISION OF SERVICES OF STAFF AUGMENTATION OF IT EXPERTS FOR VARIOUS PROJECTS OF PITB UNDER FRAMEWORK CONTRACT

Punjab Information Technology Board (PITB)

11th Floor, Arfa Software Technology Park (ASTP),

346-B, Ferozepur Road, Lahore, Pakistan

Phone: (+ 92) (42) (35880062), Fax: (+92) (42) (99232123)

URL: www.pitb.gov.pk

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Abbreviations

Term	Definition
PITB	Punjab Information Technology Board
EOI	Expression of Interest
PQ	Pre-qualification

1. GENERAL

Punjab Information Technology Board (PITB) intends to invite EOI-Prequalification (EOI-PQ) proposals from interested applicant(s) for Provision of Services of Staff Augmentation of IT Experts for Various Projects of PITB under Framework Contract. All reputable, registered and well-experienced software houses / IT companies etc. are invited to apply for the participation in EOI-PQ Process and submit proposals.

2. *PURPOSE OF THIS DOCUMENT*

The purpose of this document is to shortlist / prequalify eligible applicant(s) capable of or Provision of Services of Staff Augmentation for Various Projects of PITB under Framework Contract. The applicants are required to provide profiles of their firms comprising experience, personnel and financial strength.

TERMS AND CONDITIONS OF THE PRE-QUALIFICATION

Definitions

In this document, unless there is anything repugnant in the subject or context:

I. Applicant means the party which, acting singly, submits a proposal in response to this EOI-PQ Document.

IV. "Authorized Representative" means any representative appointed, from time to time, by the Applicant, Purchaser.

V. "Purchaser" means the Punjab Information Technology Board (PITB), or any other entity for the time being or from time to time duly appointed in writing by the Government to act as Purchaser for the purpose.

VI. "Day" means calendar day.

VII. “Employer” means Purchaser.

VIII. “EOI-PQ Document” means the Expression of Interest-Pre-qualification Document in consideration.

IX. "Person" includes an individual, an association of persons, firm, company, corporation, institution and organization, etc.

X. "Prescribed" means prescribed in the EOI-PQ Document.

XI. “Contractor” means the software houses / IT companies which will provide the required services.

Disclaimer

This EOI-PQ Document for "Provision of Services of Staff Augmentation for Various Projects of PITB under Framework Contract" ('the Project') contains brief information about the Project and qualification process for short listing and pre-qualification of applicants for RFP/RFQ stage. The purpose of the Document is to provide the applicants with information to assist the formulation of their EOI-PQ proposal and to pre-qualify well-experienced software houses / IT companies etc. for the RFP/RFQ Stage.

While all efforts have been made to ensure the accuracy of information contained in this EOI-PQ Document, this document may not contain all the information required by the Applicants. The Applicants should conduct their own independent assessment, investigations and analysis and may prepare their proposals in the light of relevant experience and international best practices. Punjab Information Technology Board (PITB), Government of the Punjab, or any of its employees or advisors / Contractors, shall incur no liability under any law, statute, rules or regulations as to the accuracy or completeness of the EOI-PQ Document.

PITB reserves the right to change any or all conditions/ information set in this EOI-PQ Document by way of revision, deletion, updation or annulment through issuance of appropriate advertisement as the Purchaser may deem fit in accordance with the PPRA Rules, 2014. Participation in the EOI-PQ process does not qualify any applicant for the next stage of the procurement process.

PITB and any other Government Department will not entertain or be liable for any claim for costs and expenses in relation to the preparation of the EOI-PQ proposal to be submitted in terms of this Document.

3. Project Background

The Punjab Information Technology Board, an autonomous body set up by Government of the Punjab, provides the foundation for Punjab's innovation economy. PITB aims at not only modernizing the governance techniques through transparency-induced methods, but also at increasing the digital literacy of the citizens among many other services. PITB is committed to effectively and efficiently providing IT services and infrastructure to government departments businesses.

As Punjab's technology spearhead, PITB is responsible for maintaining the foundational IT infrastructure and system of Punjab i.e. a datacenter for hosting and managing official email identities and web

presence. The organization has provided systems and solutions that have positively influenced Health, Education and Law & Order sectors of the province. Moreover, PITB's immense efforts towards better e-governance reforms have been acknowledged globally. Additionally, PITB is striving to promote an entrepreneurial ecosystem in the country, along with capacity building of both professionals and students.

Staff at PITB has been working for many years on various projects to automate Government Departments, improve department performance and citizen service delivery. The staff hired in the team is very capable and hardworking and has delivered consistently in past years.

However, there is a need to engage more technical staff (Developers, Designers, Quality Assurance Engineers, Business Analysts etc.) from the industry (private sector). Interacting with the industry will help PITB to enhance the skill set, to generate employment and to learn from the industry best practices.

4. BRIEF SCOPE OF WORK

PITB will sign contracts with all pre-qualified Contractors for the period of minimum 1 year and duration shall be extended for next two years (if required). Subsequently, RFP/RFQ for provision of resources as per needs and requirements of PITB, will be issued to all the pre-qualified Contractors. After evaluation of received proposals, PITB shall award assignment to the lowest bidder. Payments against each assignment will be made as per terms mentioned in the RFP/RFQ.

4.1 **SCOPE, DUTIES AND RESPONSIBILITY OF CONTRACTORS:**

- Coordination with PITB to understand the project, requirements and submit required deliverables. Deliverables may vary depending upon the area/expertise of the resource hired. E.g. for a Software Developer the deliverables will be writing good quality code within given timelines, unit testing etc.
- Exact deliverables will be mentioned along with the RFP/RFQ.
- The resources will be required to submit the deliverables in a repository at PITB.
- Hardware (laptop etc.) that will be required for working of the hired individuals, will be provided by the Contractor.
- The resource will be required to frequently visit and sit in PITB office, as per project requirement.

4.2 **ROLE OF PUNJAB INFORMATION TECHNOLOGY BOARD (PITB):**

The PITB will:

- Coordinate with hired resources, assign them tasks and monitor the progress.
- Approve estimated work hours for assigned tasks
- Ensure tasks are done as per agreed timelines and log actual work hours spent.
- Review/Analyze the quality of tasks (code, design etc.) and approve.
- Source Code deployment.

4.3 **REQUIRED EXPERTS:**

Tentative requirement of human resource is annexed at Annexure-B. The requirements, technology choice, experience etc. may vary from project to project. Exact technical details of the required staff will be mentioned in the respective RFP/RFQ.

4.4 **REPORTING REQUIREMENTS / DELIVERABLES:**

i. Requirements

Exact requirements and deliverables will vary and will be mentioned specifically in each RFP/RFQ.

ii. PAYMENT:

Payments against each assignment will be made as per terms mentioned in the RFP/RFQ.

Note:

The applicants are required to submit their expression of interest (EOI), in the light of information presented in the preceding paragraphs and their experience and international best practices.

5. INSTRUCTIONS TO APPLICANTS

5.1 Submission of Proposal

Applications for EOI-PQ containing separate EOI & Pre-Qualification Proposals, one original and one (01) copy should be submitted in separately sealed envelopes to be delivered into the Tender Box No.1, placed at reception of Punjab Information Technology Board, no later than **1200 hours on 20th October, 2020**. The proposals shall be publicly opened in the Committee Room of Punjab Information Technology Board, 13th Floor, Arfa Software Technology Park, 346-B, Ferozepur Road, Lahore, at **1230 hours** on **20th October, 2020**.

In case the last date of proposal submission falls in / within the official holidays / weekends of the Purchaser, the last date for submission of the proposals shall be the next working day.

The proposals are to be prepared in English language. The applicants must provide complete information along with supporting documents. Any lapses to provide essential information may result in disqualification of the applicant.

Checklist for proposal submission is given at Annexure-C. All documents submitted by the firms should preferably be delivered in one Packet / parcel for ease of handling and to avoid loss of documents. Any misleading statement(s) or information by any applicant will result into disqualification at any stage.

A pre-proposal meeting will be held on **12th October, 2020** at **12:00 pm** at PITB premises (13th Floor, Arfa Software Technology Park, 346-B, Ferozepur Road, Lahore).

The Applicants can seek any clarification regarding the project, pre-qualification documents or evaluation criteria from the following:

Primary Contact

Adil Iqbal
Director (Software Engineering)
Email: adil.iqbal@pitb.gov.pk
11th Floor, Arfa Software Technology Park, 346-B,
Ferozepur Road, Lahore, Pakistan.
Ph: +92 42 35880062

Secondary Contact

M. Jahanzaib Khan
Assistant Director (Development & Procurement)
Email: jahanzaib.khan@pitb.gov.pk
13th Floor, Arfa Software Technology Park, 346-B,
Ferozepur Road, Lahore, Pakistan.
Ph: +92 42 35880062

Interested Parties should note that during the period from the receipt of the proposal and till further notice from the Primary Contact, all queries should be communicated via the Primary Contact in writing or e-mail only. In the case of an urgent situation where the Primary Contact cannot be contacted, the Interested Parties may alternatively direct their enquiries through the Secondary Contact.

Interested Parties are also required to state in their proposals the name, title, fax number and e-mail address of their authorized representative through whom all communications shall be directed until the

process has been completed or terminated.

The Employer will not be responsible for any costs or expenses incurred by Interested Parties in connection with the preparation or delivery of proposals.

5.2 Joint Venture (JV)

Joint ventures / consortiums are not eligible for this EOI-PQ.

5.3 Qualification Criteria

5.3.1 General

EOI-PQ will be based on all the criteria given in succeeding sections regarding the Applicant's financial soundness, experience, personnel strength as indicated by the Applicant's responses in the forms given in this document.

5.3.2 Mandatory Basic Requirements

Only those applicants fulfilling the following basic requirements shall be considered for further evaluation (relevant documents to be attached):

i. Valid Income Tax Registration (Registered for at least last one (1) year)
ii. Valid Sales Tax Registration (Status should be active with relevant authority)
iii. Submission of undertaking that the firm is not blacklisted by any provincial or federal government department, anywhere in Pakistan.
iv. The Applicants must have relevant experience for software development / provision of services of IT Experts.

5.3.3 Weightage /Marks

Distribution of Weightage/Marks shall be as under:

Sr. No.	Category	Weightage/Marks
1.	Experience	40
2.	Personnel Capabilities	40
3.	Financial Strength	20
Total:		**100**

Note: *Prequalification status shall be determined on the Point scoring criteria. In order to qualify, the applicant must obtain overall* ***70 marks and at least 25% marks in each category as mentioned in the table above****.*

PROVISO: *Provided that if NONE or ONLY ONE (single) applicant obtains overall 70 marks, then the Purchaser SHALL decrease the Pass Mark limit to 60 marks. In other words, if TWO or more applicants obtain overall 70 marks, then the Pass Mark will NOT be decreased to 60 marks.*

If Pass Marks are decreased to 60 marks, then ALL applicants with scores greater than or equal to 60 marks shall be qualified.

A detailed Prequalification criterion is given below:

Experience

The applicant shall meet the following minimum criteria and the credit marks will be awarded on the basis of the qualifications listed below:

Sr. No.	Description	Maximum Points	Remarks
Similar Work Experience			Marks will be assigned on the basis of valid documentary evidence (Contracts / Purchase Orders)
1	The Applicant should have experience as a prime contractor for Software Development (worth Rs. 2 million or more each project) within last 4 years. 10 marks for each project, Max 4 Projects.	40	
	Sub-total:	**40**	

Personnel Capabilities

The applicants must have in their employment suitably qualified personnel with relevant experience to fill the key technical positions. Few technologies and areas are mentioned in Annexure-B for reference. More technologies/areas/domains may be added at the time of RFP/RFQ.

Sr. #	Description	Qualification	No. of Employees	Minimum Experience (Years)	Maximum Points	Remarks
1.	Software Engineers with all kind of expertise will be considered for evaluation purpose	BS / MS degree in Computer Science or equivalent	20 employees (2 points / employee)	Minimum 2 years of experience in software industry	40	Proof of availability of the indicated personnel and their CVs to be attached

Financial Strength

a) The Applicant must submit audited financial statements / balance-sheets of last financial year, supported by audit letters duly signed and stamped by authorized representative.

b) The Applicant is required to have liquid assets as given in below table (Verifiable from last audited report).

Credit Marks shall be awarded on the basis of the following criteria:

Sr. No.	Description	Maximum Marks	Remarks
i	Current Assets (Verifiable from last audited report)	20	No marks if Audited reports/balance-sheets are not attached. • Current Assets > 2 Million but ≤ 3 Million = 7 marks • Current Assets > 3 Million but ≤ 5 Million = 14 marks • Current Assets > 5 Million = 20 marks • No points for Current Assets less than Rs.2 Million
	Sub-total:	**20**	

6. Other Factors

6.1 Only firms that have been prequalified under this procedure shall be invited to bid. A firm can apply for pre-qualification individually only.

6.2 The Purchaser may reject all proposals at any time prior to the acceptance of a proposal. The Purchaser shall upon request, communicate to any Applicant, the grounds for its rejection of all proposals, but shall not be required to justify those grounds. The Purchaser shall incur no liability, solely, by virtue of its invoking sub-rule (1) of Rule-35 of Punjab Procurement Rules, 2014 towards the Applicants. However, Applicants shall be promptly informed about the rejection of the proposals, if any (As per Rule 35 of Punjab Procurement Rules, 2014).

6.3 The Applicant shall bear all costs / expenses associated with the preparation and submission of the Proposal(s) and the Employer shall in no case be responsible / liable for those costs / expenses.

GENERAL CONDITIONS OF DRAFT CONTRACT

7. CONTRACT LANGUAGE

The Contract and all documents relating to the Contract, exchanged between The Contractor and The Purchaser, shall be in English. The Contractor shall bear all costs of translation to English and all risks of the accuracy of such translation.

8. FRAMEWORK CONTRACT DURATION

The framework contract duration shall be for the period one year and extendable for next two (2) years from the date of issuance of Letter of Intent (If required). Renewal shall be based on provisioning of satisfactory services by the service provider, needs, requirements and approved budgetary provisions of the Purchaser.

9. STANDARDS

The Services supplied under this Contract shall conform to the authoritative latest industry standards and best practices.

10. PATENT RIGHT

The Contractor shall indemnify and hold the Purchaser harmless against all third party claims of infringement of patent or trademark arising from acquisition of the Services or any part thereof.

11. EXECUTION SCHEDULE

The Contractor shall start the delivery of services / provided resources within two (02) weeks from issuance of Purchase Order(s), subsequent to the issuance of Letter of Intent/Contract signing.

12. PAYMENT

12.1 The Contractor shall provide all necessary supporting documents along with invoice.

12.2 The Contractor shall submit an Application for Payment, to the Purchaser. The Application for Payment shall: be accompanied by such invoices, receipts or other documentary evidence as the Purchaser may require; state the amount claimed; and set forth in detail, in the order of the Price Schedule, particulars of the Services delivered, up to the date of the Application for Payment and subsequent to the period covered by the last preceding Payment, if any.

12.3 The Purchaser shall get verified the details of Services delivered / resources provided against the invoice from relevant team and Payment shall be made on monthly basis as per actual.

12.4 The Purchaser shall pay the amount verified within thirty (30) days. Payment shall not be made in advance. The Purchaser shall make payment for the Services provided to the Contractor, as per Government policy, in Pak Rupees, through treasury cheque.

12.5 The Contractor shall cause the validity period of the performance security to be extended for such period(s) as the contract performance may be extended.

12.6 All payments shall be subject to any and all taxes, duties and levies applicable under the laws of Pakistan for the whole period starting from issuance of Letter of Intent (LOI) till termination of the signed contract in this regard.

13. PRICE

The Contractor shall not charge prices for the Services provided and for other obligations discharged, under the Contract, varying from the prices quoted by the Contractor in the Price Schedule.

14. CONTRACT AMENDMENT

14.1 The Purchaser may at any time, by written notice served to the Contractor, alter or amend the contract for any identified need/requirement in the light of prevailing rules and regulations.

14.2 The Contractor shall not execute any Change until and unless the Purchaser has allowed the said Change, by written order served on the Contractor with a copy to the Client.

14.3 The Change, mutually agreed upon, shall constitute part of the obligations under this Contract, and the provisions of the Contract shall apply to the said Change.

14.4 No variation in or modification in the Contract shall be made, except by written amendment signed by both the Purchaser and the Contractor.

15. ASSIGNMENT / SUBCONTRACT

15.1 The Contractor shall not assign or sub-contract its obligations under the Contract, in whole or in part, except with the Purchaser's prior written consent.

15.2 The Contractor shall guarantee that any and all assignees / sub-contractor of the Contractor shall, for performance of any part / whole of the work under the contract, comply fully with the terms and conditions of the Contract applicable to such part / whole of the work under the contract.

16. PERFORMANCE SECURITY

The Contractor must submit the Performance security, in the shape of Bank Guarantee amounting to PKR 200,000/- (Rupees two hundred thousand only), having validity period from the date of signing of contract until the date of termination of services, or fulfillment of all obligations under the contract, whichever is later. Performance Security should be provided

within twenty eight (28) days of the issuance of the relevant Letter of Intent (LOI). In case the Contractor fails or refuses to furnish the Performance Security within stipulated time given in this document, the purchases reserves the right to cancel the LOI and contract may not be signed.

17. FORFEITURE OF PERFORMANCE SECURITY

17.1 The Performance Security shall be forfeited by the Purchaser, on occurrence of any / all of the following conditions:

17.1.1. If the Contractor commits a default under the Contract;

17.1.2. If the Contractor fails to fulfill any of the obligations under the Contract;

17.1.3. If the Contractor violates any of the terms and conditions of the Contract.

17.2 The Contractor shall cause the validity period of the performance security to be extended for such period(s) as the contract performance may be extended.

17.3 If the Contractor fails / delays in performance of any of the obligations, under the Contract / violates any of the provisions of the Contract / commits breach of any of the terms and conditions of the Contract the Purchaser may, without prejudice to any other right of action / remedy it may have, forfeit Performance Security of the Contractor.

18. EXTENSIONS IN TIME FOR PERFORMANCE OF OBLIGATIONS UNDER THE CONTRACT

If the Contractor encounters conditions impeding timely performance of any of the obligations, under the Contract, at any time, the Contractor shall, by written notice served on the Purchaser with a copy to the Client, promptly indicate the facts of the delay, its likely duration and its cause(s). As soon as practicable after receipt of such notice, the Purchaser shall evaluate the situation and may, at its exclusive discretion, without prejudice to any other remedy it may have, by written order served on the Contractor with a copy to the Client, extend the Contractor's time for performance of its obligations under the Contract.

19. LIQUIDATED DAMAGES

If the Contractor fails / delays in performance of any of the obligations, under the Contract / violates any of the provisions of the Contract / commits breach of any of the terms and conditions of the Contract, the Purchaser may, without prejudice to any other right of action / remedy it may have, deduct from the Contract Price against undelivered portion, as liquidated damages, a sum of money @0.25% of the Contract Price which is attributable to such part of the Services, in consequence of the failure / delay, be put to the intended use, for every day of the non-compliance, with any extension of time thereof granted by the Purchaser. Provided the amount so deducted shall not exceed, in the aggregate 10 % of the Contract Price.

20. BLACKLISTING

If the Contractor fails / delays in performance of any of the obligations, under the Contract / violates any of the provisions of the Contract / commits breach of any of the terms and conditions of the Contract or found to have engaged in corrupt or fraudulent practices in competing for the award of contract or during the execution of the contract, the Purchaser may without prejudice to any other right of action / remedy it may have, blacklist the Contractor, either indefinitely or for a stated period, for future tenders in public sector, as per provision of Punjab Procurement Rules, 2014 and PITB Procurement Regulations and Guidelines.

21. DISPUTE RESOLUTION

21.1 The Purchaser and The Contractor shall make every effort to amicably resolve, by direct informal negotiation, any disagreement or dispute arising between them under or in connection with the Contract.

21.2 If, after thirty (30) working days, from the commencement of such informal negotiations, the Purchaser and the Contractor have been unable to amicably resolve a Contract dispute, either party may, require that the dispute be referred for resolution by arbitration under the Pakistan Arbitration Act, 1940, as amended, by one or more arbitrators selected in accordance with said Law. The place for arbitration shall be Lahore, Pakistan. The award shall be final and binding on the parties.

22. TERMINATION FOR DEFAULT

If The Contractor fails to provide Services under the Contract / violates any of the provisions of the Contract / commits breach of any of the terms and conditions of The Contract The Purchaser may, at any time, without prejudice to any other right of action / remedy it may have, by written notice served on The Contractor, indicate the nature of the default(s) and terminate the Contract, in whole or in part, without any compensation to The Contractor. Provided that the termination of the Contract shall be resorted to only if The Contractor does not cure its failure / delay, within five (05) days (or such longer period as The Purchaser may allow in writing), after receipt of such notice.

23. TERMINATION FOR INSOLVENCY

If The Contractor becomes bankrupt or otherwise insolvent, The Purchaser may, at any time, without prejudice to any other right of action / remedy it may have, by written notice served on The Contractor with a copy to The Purchaser, indicate the nature of the insolvency and terminate the Contract, in whole or in part, without any compensation to The Contractor.

24. TERMINATION FOR CONVENIENCE

24.1 The Purchaser may, at any time, by written notice served on the Contractor, terminate the Contract, in whole or in part, for its convenience, without any compensation to the Contractor.

24.2 The Services which are complete or to be completed by the Contractor, within thirty working days after the receipt of such notice, shall be accepted by the Purchaser. For the remaining Services, the Purchaser may elect:

24.2.1 to have any portion thereof completed and delivered; and/or

24.2.2 to cancel the remainder and pay to the Contractor an agreed amount for delivered Services, previously procured by the Contractor for the purpose of the Contract.

25. FORCE MAJEURE

25.1 For the purpose of this contract "Force Majeure" means an event which is beyond the reasonable control of a party and which makes a party's performance of its obligations under the Contract impossible or so impractical as to be considered impossible under the circumstances, and includes, but is not limited to, War, Riots, Storm, Flood or other industrial actions (except where such strikes, lockouts or other industrial actions are within the power of the party invoking Force Majeure), confiscation or any other action by Government agencies. In all disputes between the parties as to matters arising pursuant to this Contract, the dispute be referred for resolution by arbitration under the Pakistan Arbitration Act, 1940, as amended, by one or more arbitrators selected in accordance with said Law. The place for arbitration shall be Lahore, Pakistan. The award shall be final and binding on the parties.

25.2 The Contractor shall not be liable for liquidated damages, blacklisting for future tenders, termination for default, if and to the extent his failure / delay in performance /discharge of obligations under the Contract is the result of an event of Force Majeure.

25.3 If a Force Majeure situation arises, The Contractor shall, by written notice served on The Purchaser, indicate such condition and the cause thereof. Unless otherwise directed by The Purchaser in writing, The Contractor shall continue to perform under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

25.4 Force Majeure shall not include (i) any event which is caused by the negligence or intentional action of a Party or Agents or Employees, nor (ii) any event which a diligent Party could reasonably have been expected to both (A) take into account at the time of the conclusion of this Contract and (B) avoid or overcome in the carrying out of its obligations

here under.

25.5 Force Majeure shall not include insufficiency of funds or failure to make any payment required hereunder.

26. STATUTES AND REGULATIONS

26.1 The Contract shall be governed by and interpreted in accordance with the laws of Pakistan.

26.2 The Contractor shall, in all matters arising in the performance of the Contract, conform, in all respects, with the provisions of all Central, Provincial and Local Laws, Statutes, Regulations and by-Laws in force in Pakistan, and shall give all notices and pay all fees required to be given or paid and shall keep The Purchaser indemnified against all penalties and liability of any kind for breach of any of the same.

26.3 The Courts of Law at Lahore shall have the exclusive territorial jurisdiction in respect of any dispute or difference of any kind arising out of or in connection with the Contract.

27. AUTHORIZED REPRESENTATIVE

27.1 The Purchaser or The Contractor may, at their exclusive discretion, appoint their Authorized Representative and may, from time to time, delegate any / all of the duties / authority, vested in them, to their authorized Representative(s), including but not limited to, signing on their behalf to legally bind them, and may, at any time, revoke such delegation.

27.2 The Authorized Representative shall only carry out such duties and exercise such authority as may be delegated to him, by The Purchaser or The Contractor.

27.3 Any such delegation or revocation shall be in writing and shall not take effect until notified to the other parties to the Contract.

27.4 Any decision, instruction or approval given by the Authorized Representative, in accordance with such delegation, shall have the same effect as though it had been given by the Principal.

27.5 If The Contractor questions any decision or instruction of the Authorized Representative of The Purchaser / The Client, The Contractor may refer the matter to The Purchaser / The Client who shall confirm, reverse or vary such decision or instruction.

28. WAIVER

Failure of either party to insist upon strict performance of the obligations of the other party, under the Contract, shall in no way be deemed or construed to affect in any way the right of that party to require such performance.

29. Taxes and DUTIES:

The Contractor shall be entirely responsible for all taxes, duties and other such levies imposed make inquiries on income tax / sales tax to the concerned authorities of Income Tax and Sales Tax Department, Government of Pakistan.

30. Contract Cost:

The Contractor shall bear all costs / expenses associated with the preparation of the Contract and the Purchaser shall in no case be responsible / liable for those costs / expenses. The successful bidder shall provide legal stamp papers of relevant value according to Govt. rules and regulations for signing of the formal contract.

Annex-A

Letter of Application

[Letterhead paper of the Applicant, including full postal address, telephone no., fax no., telex no. and e-mail address]

Date: .....

To: .....

.....

[Name and address of the Employer]

Sir,

1. Being duly authorized to represent and act on behalf of..... (hereinafter "the Applicant"), and having reviewed and fully understood all the EOI-PQ information provided, the undersigned hereby applies to be pre-qualified for "Provision of Services of Staff Augmentation of IT Experts for Various Projects of PITB under Framework Contract":

2. Attached to this letter are copies of original documents defining:

   (a) The Applicant's legal status;

   (b) The principal place of business;

   (c) The place of incorporation (for applicants who are corporations); or

   The place of registration and the nationality of the owners (for applicants who are partnerships or individually-owned firms);

1. The Client and its authorized representatives are hereby authorized to conduct any inquiries or investigations to verify the statements, documents, and information submitted in connection with this proposal, and to seek clarification from our bankers and clients regarding any financial and technical aspects. This Letter of Application will also serve as authorization to any individual or authorized representative of any institution referred to in the supporting information, to provide such information deemed necessary and requested by the Employer or its authorized representative to verify statements and information provided in this proposal, or with regard to the resources, experience, and competence of the Applicant.

4. The Client and its authorized representatives may contact the following persons for further information, if needed.

General and Managerial Inquiries	
Contact 1	Telephone 1
Contact 2	Telephone 2
Personnel Inquiries	
Contact 1	Telephone 1
Contact 2	Telephone 2
Technical Inquiries	
Contact 1	Telephone 1
Contact 2	Telephone 2
Financial Inquiries	
Contact 1	Telephone 1
Contact 2	Telephone 2

5. This proposal is made with the full understanding that:

   (a) Proposals by pre-qualified applicants will be subject to verification of all information submitted for pre-qualification.

7. The undersigned declare that the statements made and the information provided in the proposal are complete, true, and correct in every detail.

_____

Signature of the Applicant

Application Form A-1

General Information

All individual firms applying for pre-qualification are requested to complete the information in this form.

1	Name of Firm	
2	Head Office Address	
3	Telephone	Contact Person: Name: Title:
4	Fax	Telex
5	Place of incorporation/Registration	Year of incorporation/registration

Application Form A-2

General Experience

Name of Applicant

All individual firms are requested to complete the information in this form.

Starting Month Year	Ending Month Year	Year	Contract Name, Name & Address of Employer Brief Description of Works Executed	Role of Applicant

Application Form A-3

Similar Experience

Name of Applicant

On a separate page, using the format of Application Form A-4, each applicant is required to list all contracts of a similar nature and complexity to the contract for which the Applicant wishes to qualify, undertaken during the last four years. The information is to be summarized, using Application Form A-4, for each contract completed or under execution by the applicant.

Application Form A-4

Contracts of Similar Nature and Complexity

Name of Applicant

Use a separate sheet for each contract.

1	Name of Contract
	Country
2	Name of Employer
3	Employer Address
4	Nature of works and special features relevant to the contract for which the Applicant wishes to prequalify --- ---
5	Contract Role (Tick One) (a) Sole Contractor (b) Sub- Contractor (c) Partner in a Joint Venture
6	Value of the total contract (in specified currencies) at completion, or at date of award for current contract Currency……. ….Currency…… Currency……
7	Value in Pak/Rs……
8	Date of Award……

9	Date of Completion……..
10	Contract Duration (Years and Months) _____Years _____Months
11	Specified Requirements --- --- --- ---

Application Form A-5

Personnel Capabilities

Name of Applicant

For specific positions essential to contract execution, Applicants should provide the names of candidates qualified to meet the specified requirements. The data on their experience should be supplied on separate sheets of CV's.

1	Title of Position
	Name of Prime Candidate

Application Form A-6

Financial Strength

Name of Applicant

Applicants should provide financial information to demonstrate that they meet the specified requirements. A copy of the audited reports/balance-sheets should be attached.

All individual firms are requested to provide information related to annual turnover.

Annual Turnover		
Year	**Turnover (in Pak Rupees)**	**Turnover in Millions.**
1.		
2.		
3.		

Summarize actual assets and liabilities in Pak Rupees for the previous one year, based upon known commitments, projected assets and liabilities in Pak Rupees.

Financial information in Pak Rs.	**Detail of Last year**
1. Total assets	
2. Current assets	
3. Total liabilities	
4. Current liabilities	
5. Profits before taxes	
6. Profits after taxes	

Firms owned by individuals, and partnerships, may submit their audit reports / balance sheets certified by a registered accountant.

Annex-B

DOMAINS OF RESOURCES - STAFF AUGMENTATION

Note: Following domains and job descriptions are just for the understanding of the interested firms and may change as per requirements at the time of RFP/RFQ.

1 - Web Development (.NET)			
Sr.#	**Title**	**Qualification**	**Job description (Responsibilities & Requirements)**
1.	Software Engineers, Senior Software Engineers etc.	BS/MS degree in Computer Science or equivalent	● Familiarity with the ASP.NET framework, SQL Server and design/architectural patterns (e.g. Model-View-Controller (MVC)) ● Has worked on product based application. ● Good analytical skills and has experience working on dynamic solutions. ● Write clean, optimized and scalable code using .NET programming languages. ● Must have ASP.NET MVC working experience ● Must be able to independently work in ASP .NET MVC project ● MUST have a strong object-oriented background with C# ● Good concepts on database design and query (SQL) writing

2 - Web Development (PHP)			
Sr.#	**Title**	**Qualification**	**Job description**
1.	Software Engineers, Senior Software Engineers etc.	BS/MS degree in Computer Science or equivalent	● PHP and MySQL experience and hands-on Software Development experience (OOP) ● Expert knowledge of OOP, RDBMS, MVC, and ORM concepts ● Expert knowledge of PHP web frameworks such as (Laravel, CodeIgniter) ● Must have strong expertise integrating with REST APIs using JSON with the ability to create advanced parsing and data manipulation functions ● Maintain and extend our existing PHP based web applications. ● Understanding of MVC design patterns ● Outstanding debugging skills. ● Must have the ability to learn new languages and frameworks in a short period of time. ● Demonstrable knowledge of web technologies including HTML,

			CSS, Javascript, AJAX etc. ● Understanding accessibility and security compliance ● Strong knowledge of the common PHP or web server exploits and their solutions ● Understanding fundamental design principles behind a scalable application ● User authentication and authorization between multiple systems, servers, and environments ● Integration of multiple data sources and databases into one system ● Familiarity with SQL/NoSQL databases and their declarative query languages ● Proficient understanding of code versioning tools, such as Git,SVN ● Having experience with Angular will be a plus. ● Ability to work under pressure ● Team working and leadership ● Problem solving and analytical skills. ● Hands-on experience with SQL schema design ● HTML, CSS and JavaScript knowledge ● Should be able to add new code and ability to modify existing code. ● Understanding of User Interface workflows. ● Ability to establish priorities.

3 - Web Development (Ruby on Rails)			
Sr.#	**Title**	**Qualification**	**Job description**
1.	Software Engineers, Senior Software Engineers etc.	BS/MS degree in Computer Science or equivalent	● Experience working with Ruby on Rails as well as libraries like Resque and RSpec. ● Ability to write clean Ruby code. ● Proficiency with code versioning tools including Git, Github and Mercurial. ● Familiarity with MVC architecture. ● Good understanding of front-end technologies including HTML5, JavaScript, and CSS3. ● Good query writing skills and familiarity with Active Record. ● Good analytical and problem solving skills. ● Should be able to communicate effectively with the clients. ● Should be familiar with requirements gathering process

4 - Quality Assurance			
Sr.#	**Title**	**Qualification**	**Job description**
1.	Quality Assurance Engineers, Senior Quality Assurance Engineers etc.	BS/MS degree in Computer Science or equivalent	● Create and execute comprehensive test plans based on functional coverage. ● Convert end to end user scenarios to test cases. ● Identify, record, document and track bugs. ● Ability to stay focused and prioritize a heavy workload while achieving exceptional quality. ● Meeting with the software/product designers to determine quality assurance parameters. ● Overseeing the drafting of testing documents. ● Troubleshooting quality issues and modifying test procedures. ● Conducting analysis checks on product specifications. ● Reviewing Quality Assurance reports. ● Ensuring the successful deployment of products into the market. ● Experienced in establishing, defining, and implementing all QA processes and procedures including test plans, test design and test cases. ● Experience in backend testing using SQL server and APIs ● Experience on working on Desktop, Web, embedded applications ● Review requirements, specifications and technical design documents to provide timely and meaningful feedback ● Document internal audits and other quality assurance activities. ● Communicate/coordinate with Dev to ensure defect free and successful development ● Good written and verbal communication skills. ● Critical thinker. ● Detail oriented. ● Good knowledge of SDLC & STLC. ● Knowledge of Agile methodologies, Scrum and Agile testing Life Cycle. ● Have strong Planning, Analytical and Problem solving skills. ● Must be a team player with the ability to manage multiple

			tasks in a deadline driven environment. ● Experience in writing clear, concise and comprehensive test plans and test cases. ● Hands-on experience with black box testing & regression testing ● Ensure best practices are followed in our Automation test suites. ● Create test automation scripts from test cases. ● Hands-on experience with automated testing tools. ● Design automated repetitive tests to streamline testing process using open source or paid tools e.g Selenium etc. ● Experience in transforming use cases into performance scripts using industry standard tools such as LoadRunner, Jmeter etc.

5 - Mobile Application Development (iOS)

Sr.#	Title	Qualification	Job description
1.	iOS Developers, Senior iOS Developers	BS/MS degree in Computer Science or equivalent	● Design and build advanced, scalable applications for the iOS platform. ● Work with the product and design teams to understand end-user requirements and use cases, and translate them into pragmatic and effective technical solutions. ● Integrate backend services with REST-API, and have familiarity with JSON and objective programming methodology, in order to entertain seamless server communication and persistence. ● Have previously worked on component building and don't rely too much on helper/3rd party libraries to entertain specific UI requirements. ● Own end-to-end product modules/features from requirement gathering, to publishing and later maintaining the products. ● Design and review code, troubleshoot and always play a pivotal role in problem solving to team members on technical matters. ● Updated with current Apple UI Requirements, App publishing on App Store Connect and advocate delightful user experiences. ● Continuously discover, evaluate, and implement new technologies to maximize development efficiency. ● Unit-test code for robustness, including edge cases, usability,

			and general reliability ● Use core animation to create engaging motion effects and intuitive interfaces. ● Proficient understanding of code versioning tools (SVN will be preferred). ● Experience with offline storage, threading, performance and memory tuning tools. ● Collaborate and work well with co-workers and clients to define, design, and ship new features in an Agile environment. ● Experience of iOS application development, with extensive use of Swift, I/O, collections, algorithms and well-known application frameworks. ● Strong understanding of interactive application development paradigm under Memory Management, Network Programming, Concurrency, Multithreading, Local and Remote Storage, Push Notifications, Background Fetches and Location Based Services. ● Excellent understanding of design patterns and code architecture. ● Excellent understanding of the full mobile development life cycle. Working knowledge of the general mobile landscape, architectures, trends, and emerging technologies ● Experience in working with third-party libraries and APIs. ● Strong and innovative approach to problem solving and finding solutions. Flexible and proactive/self-motivated working style with strong personal ownership of problem resolution.

6 - Mobile Application Development (Android)			
Sr.#	**Title**	**Qualification**	**Job description**
1.	Android Developers, Senior Android Developers	BS/MS degree in Computer Science or equivalent	● Good knowledge of application development required. ● Experienced in Android development. ● A strong understanding of Android Application Development, Java, Android SDK and NDK (hands on Kotlin and react native will be preferred). ● Understanding of Google's Android design principles and interface guidelines. ● A firm understanding of object-oriented design patterns and architecture, SDLC programming techniques.

			● Familiarity with integration with other hardware devices i.e. Bluetooth, Biometric devices ● Good knowledge of complete cycle of RESTful and SOAP APIs, to connect with back-end server. ● A strong understanding of SQL, SQLite and ORMs. ● Good knowledge of offline storage, threading, and performance tuning. ● Experience with version control software especially GIT or SVN. ● Understanding of fundamental design principles behind a scalable application. ● Review and analyze requirements/write estimates. Developer will review requirements and design documents to produce estimates and task lists based on those requirements. ● Excellent command over Data Structures, Algorithms, complexity analysis and optimization of solution. ● Ability to translate conceptual designs into user interfaces. ● Ability to write efficient/extensible code ● Strong communication, analytical and problem solving skills. ● Enthusiastic, self-motivated and team player.

7 - Database Administration (SQL Server)			
Sr.#	**Title**	**Qualification**	**Job description**
1.	Database Administrator	BS/MS degree in Computer Science or equivalent	● Installation of SQL Server Software and Related Products. ● Establish and Maintain Backups on Local and Remote Media. ● Performance Monitoring and tuning Using Performance Monitor, DBCC Commands, Maintenance Plans, Third Party Tools. ● Database design development and Tune Database Queries. ● Optimization of SQL Server, Stored Procedures and SQL Scripts, Queries ● Development of SSRS reports, ETL jobs and SSIS ● Database Replication. ● Allocating system storage and planning storage requirements for the database system and manage database access. ● Modifying the database structure, as necessary, from information given by application developers and diagnose/troubleshoot database errors. ● Recommend and implement emerging database technologies

			while ensuring the security of data ● Understanding of SQL Server's underlying storage ● Experience with clustering and master-slave solutions for database systems

8 - Database Administration (MySQL)			
Sr.#	**Title**	**Qualification**	**Job description**
1.	Database Administrator	BS/MS degree in Computer Science or equivalent	● Experience in administration of MySQL database. ● Installation, configuration and upgrading of Informix, MySQL and related products ● Establishes and maintains database backups & recovery policies and procedures. ● Provision of support and assistance to the development team in the design, development, testing, performance tuning, and implementation of database applications. ● Database design development and Tune Database Queries. ● Creation and maintenance of MySQL queries and routines. ● Provisioning of (database) development and testing environments. ● Maintains the existing database design and takes care of new implementations ● Writing ad-hoc queries based on schema knowledge for various reporting requirements. ● Writing / tuning data ingestion procedures from external suppliers and partners 3rd party tools eg. Toad/Navicat etc. ● Required to deal with complex data models and object-relational database mapping, while producing complex reports. ● Experience maintaining and troubleshooting production database server issues ● Experience with clustering and master-slave solutions for database systems ● Understanding of replication and high availability tools and methods ● Understanding of MySQL's underlying storage engines, such as InnoDB

9 - Design (UI/UX)

Sr.#	Title	Qualification	Job description
1.	UI/UX Designers, Senior UI/UX Designers etc.	Bachelor's in Design, Computer Science or relevant field e.g. BFA/MFA/Certification/16 years of education	• Gather and evaluate user interface requirements, in collaboration with product managers and engineers. • Understanding user needs and translating them into product design decisions. • Ability to make user flows and wireframes for the initial feedback loop. • Ability to be able to form, prototype and confidently present ideas. • Strong Visual Design Skills, being able to create aesthetically pleasing interfaces. • Attention to detail in everything you do. • Knowing how to apply given styles to a product to keep the experience, look & feel and brand familiar on the platform but also consistent between platforms. • Clearly communicate design ideas and prototypes to developers. • Deliver attractive user interfaces across a range of client websites and mobile apps • Keep up to date with the latest UI design and usability trends and techniques • Work with a team of UX designers to ensure any UI design changes help to compliment the overall user experience and journey • Help to create UI design wireframes, mock ups and final designs across all desktop, mobile and tablet devices • Good knowledge of design and collaboration tools like Adobe XD, Sketch, Photoshop, Zeplin, etc. • Proven ability to be self-directed and work with minimal supervision. • Must be a great listener, and a good speaker. • Must have good research skills. • Strong working knowledge of the Adobe Creative Suite • Strong understanding of UI design techniques and tools • A passion for Interaction Design • A strong working knowledge of wireframing and prototyping

			tools • A strong portfolio that demonstrates a range of UI design techniques • Experience with HTML, CSS and jQuery would be a plus

10 - Front End Development

Sr.#	Title	Qualification	Job description
1.	Front end Developer, Senior Front End Developer etc.	BS/MS degree in Computer Science or equivalent	• Primarily developing web front-ends using HTML5, CSS, SCSS, JavaScript, JQuery and AngularJS on multiple projects. • Must have experience in any of the javascript frameworks mainly jQuery, Angular or React. • Skills in Photoshop, Illustrator, Zeplin are a big plus • Experience of optimizing web applications for performance, speed and traffic increase. • Experience in implementing visual elements that users see and interact with-in a web application. • Ability to design brief to record requirements and project needs. • Creative thinking to develop new design concepts, graphics, and layouts. • Work with UX designer to translate their vision into code. • Interfacing with back-end software engineers on parsing and displaying complex data, and participating in internal API design in anticipation of an ever-expanding library of data types requiring front end display/engagement • Other duties as assigned by the Line manager

11 - Geographical Information Systems (GIS)				
Sr.#	**Title**	**Experience (Years)**	**Qualification**	**Job description**
1.	Remote Sensing Specialist	3-5 years	MSc (2 years)/ BS(Hons) in Remote Sensing, Space Science and GIS from a HEC recognized university	● Proficiency in Image classification and enhancement analysis on satellite imageries. ● Hands on experience in rectification and Geo processing of various satellite imageries. ● Ability to develop algorithms for modeling. ● Knowledge of using remote sensing and image analysis software for change detections, identification, extraction and computation of features. ● Supervising in conducting GPS/DGPS surveying in the field and ability to use other surveying tools. ● Experience in data collection and GEO spatial data management. ● Ability to build capacity of other team members. ● Tendency to assist Team Lead in multiple activities.
2.	Spatial Data Science and Mining Engineer	5-7 years	Graduate/Post-graduate degree in GIS, Space Sciences, Software Engineering, Data Science or relevant field. Advanced degree in a relevant field would be an advantage	● Have data analysis and mining experience. ● Knowledge of the existing development scenario and could program in any new language. ● Have research experience and understands algorithms ● Experience with government and non-government organizations; ● Experience in managing local and national level projects; ● Strong decision making ability ● Experience in planning and executing multidisciplinary projects would be an added quality ● Excellent facilitation and interpersonal skills; ● Fluency in spoken and written English; ● Proficiency in ENVI, ArcGIS, QGIS tableau, Global Mapper, Erdas Imagine,

				ER Mapper, Google Earth, Google Map, Adobe Photoshop, Corel Draw and other computer applications, including the internet, presentation software and database applications
3.	GIS Development Specialist	3-5 years	MSc (2 years)/ BS(Hons) in GIS / Computer Sciences from HEC recognized university	● Proficiency in web GIS and application development. ● Knowledge and handling of ArcGIS Server, Open Source Server, APIs, ArcGIS Mobile-software communication with GIS mobile devices, database development and handling. ● Ability to customize GIS software. ● Developing, maintaining and executing quality control/assurance. ● Experience in providing GIS training and technical support to GIS users. ● Ability to work with multi-disciplinary teams ● Preparing and reviewing operational reports and project progress reports. ● Assisting Team Lead to accomplish various tasks

4.	GIS Associate	1-3	MSc (2 years)/ BS (Hons) in GIS and related fields from HEC recognized University	• Hands on experience in data collection, digitization and Geo-referencing. • Knowledge of building topology and data cleaning from multi source data. • Experience in editing, data conversion and data compatibility • Ability to develop base and thematic maps.
5.	GIS Assistant	0-1 years	MSc (2 years)/ BS (Hons) in GIS and related fields from HEC recognized University	• Basic knowledge of scanning, digitization and Geo-referencing. • Basic knowledge of editing, data conversion and data compatibility • Understanding to develop base maps.

12 - Research & Development				
Sr.#	**Title**	**Experience (Years)**	**Qualification**	**Job description**
1.	Software Research & Development Engineer, Senior Software Research & Development Engineer etc.	At least 2 years	BS/MS degree in Computer Science or equivalent	• Data Science/ Data Mining • Artificial Intelligence / Machine Learning • Machine Learning/ Python/ R • .Net Programming C++/C# • Research Methodologies • Computer Vision/ Opencv/ OpenGL • Strong Mathematics, Analytical, Logical skills, and Critical Thinking. • Ability to work in a pressure situation with sound problem-solving skills. • Good positive behavior with good communication skills. • Team Player.

13 - Software Architecture				
Sr.#	**Title**	**Experience (Years)**	**Qualification**	**Job description**
1.	Software Architect	8-10 years	BS/MS degree in Computer Science or equivalent	• Collaborate with other professionals to determine functional and non-functional requirements for new software or applications • Use tools and methodologies to create representations for functions and user interface of desired product • Develop high-level product specifications with attention to system integration and feasibility • Define all aspects of development from appropriate technology and workflow to coding standards • Communicate successfully all concepts and guidelines to development team • Oversee progress of development team to ensure consistency with initial design • Provide technical guidance and coaching to developers and engineers • Ensure software meets all requirements of quality, security, modifiability, extensibility etc. • 8-10 years of experience designing and implementing software applications • Experience working on large-scale software projects • Demonstrated knowledge of web applications, cyber security and open source technologies • Experience developing software utilizing various coding languages including Java, PHP • Outstanding collaboration and communication skill are essential • Experience overseeing customized development of processes for multiple projects simultaneously

				• Professional experience analyzing code for weaknesses and errors, and overseeing plans to improve them • Experience designing secure software systems based upon industry-specific specifications

14 - Dev Ops			
Sr.#	**Title**	**Qualification**	**Job description (Responsibilities & Requirements)**
1.	Dev Ops Engineer	BS/MS degree in Computer Science or equivalent	• Develop and automate tests for products and packages • Assist with internal and external build/packaging/release related projects • Assist with implementing various items relating to their build environment • Monitor, log, analyze, and fix packaging related bugs • Further automate the current build processes/tasks and packaging testing setup • Resolve issues with internal repositories & implement new repositories as needed • Integrate new products and 3rd party softwares as needed • Design & implement solutions for package interdependencies • Evaluate new build/packaging/release solutions as needed • Assist with packaging setup/method review & overhaul • Previous exposure to a large-scale build/release environment, or equivalent experience in, for example, a development, devops or DBA role, preferably with extensive database-related exposure • Experienced in Linux systems administration (file systems, hardware, and networking) • Proficiency in automating tasks, including shell scripting skills • Proficiency with Docker and containerization • Hands on Experience in at least one DevOps tools (Ansible, Jenkins etc.) for continuous integration and deployment (CI/CD) • Experience with software testing methods and technologies • Good knowledge on Automated test case execution

15 - System Administration

Sr.#	Title	Qualification	Job description (Responsibilities & Requirements)
1.	System Administrator	BS/MS degree in Computer Science or equivalent	• Perform hardware and software installations, upgrades, and maintenance, patch administration, kernel modification/upgrades, file system management, performance and security analysis, and network configuration/tuning. • Cluster configuration and maintenance; shell scripting, performance tuning, hardening and support in high availability on and off-site environments. • Coordinate and perform preventive system maintenance; Set up day-to-day maintenance of production systems. Perform resource monitoring, performance tuning, and scaling of infrastructure as needed. • Work with development initiatives to proactively prepare server builds and input on design/implementation considerations. • Work with application developers on the Solaris platform for installation and maintenance in both development and production environments. • Experience with Centos Linux 6 or greater System Administration • Sound knowledge of Enterprise Technologies (NFS, LDAP, LINUX clustering, performance tuning, mail, syslog, security) • Package management, scripting with Linux shell scripts and standard Linux utilities for automation of administrative tasks. • Strong knowledge of TCP/IP internetworking - DNS, VPN, FTP, SSH, HTTP, SMTP, firewalls (iptables). • Have excellent troubleshooting and problem solving skills with little supervision (network, hardware, OS, performance related problems). • Ability to successfully handle the completion of multiple concurrent assignments under pressure and interface with vendors or related support mechanisms for escalation/resolution purposes. • Experience supporting Database environments on an operating system level a plus (e.g. MySQL and Oracle) • Ability to work required days and hours and participate on an on-call rotation (24X7).

Annex-C

CHECKLIST FOR PROPOSAL SUBMISSION

i. Income Tax Registration certificate
ii. Sales Tax Registration certificate
iii. Undertaking that the firm is not blacklisted by any provincial or federal government department, anywhere in Pakistan.
iv. Relevant experience documents (Purchase Orders / Contracts / Certificates).
v. CVs of resources.
vi. Audited reports/balance-sheets.
vii. Application forms A-1 to A-6.