Terms of Reference for Individual Consultant

1.   Solution Architect (IT Wing)

The Software Solution Architect will work closely with the IT project team to understand the business requirements and design scalable, maintainable, and cost-effective software solutions. (s)he will also lead the project's technical direction and ensure that the final product meets the required technical and quality standards.

Scope of Services:
- Responsible for assisting in the establishment of Software Architecture practice, and the adoption of an architecture and standards methodology.
- Be an evangelist and strong communicator of the architectural blueprints of our product to mobilize the rest of the organization to build solutions that fit our Government-to-Government G2G and Business-to-Business B2B customers' needs.
- Develops and executes solutions that further reduce the percentage of time spent on reactive work.
- Document all the solution architecture design and analysis work
- Directs the identification and recommendation of appropriate solutions, upgrades, replacements, or decommissioning options incorporating business and technology products, and usability.
- Reviews business context for solutions to company challenges as well as defining the vision and requirements for the solution, recommending potential options, selecting the most optimal option and developing a roadmap for the selected solution.
- Communicates the architecture to the stakeholders, collaborates and coordinates with existing domain architects to formalize and adopt standards and procedures.
- Assures solutions not only fit the specific purpose but also closely align with the standards and guidelines of technology solutions.

Qualifications and Experience:
- Bachelor and/or master's degree in Computer Science/ Software Engineering or similar relevant field.
- 8+ years of experience in senior backend/ frontend role, 4+ years of experience in Solution/ Software Architect level.
- Experience with back-end development (Java, Node.js, .NET), including building RESTful APIs in a widely used programming language.
- Experience with mobile development, including React Native, iOS, and Android.
- Experience with Front-end technologies, including modern JavaScript frameworks (React, Angular, etc.)
- Experience with SQL & Database Skills, both SQL and NoSQL.
- Knowledge of Enterprise Service Platforms WSO2/IBM (API Gateway, ESB, Identity Server).
- Experience with agile software development methodologies.
- Experience with DevOps practices and tools, such as CI/CD pipelines and infrastructure as code.
- Experience with data modeling and database design.
  Experience with security and compliance in software development.
- Knowledge of Togaf MSA & SOA Reference Architect will be plus.
- Must have excellent written and verbal English communication skills.
- Positive attitude with an entrepreneurial spirit.

Duration of the Assignment:
The duration of the assignment is up to 1 year which is further extendable upon requirement.

2.   DevOps Architect (IT Wing)

Scope of Services:
- Responsible for documentation of system configuration, processes and tools used by the team.
- Have a thorough process methodology and ability to communicate with all stake holders.
- Work collaboratively with development engineering to create and deploy a CI/ CD infrastructure.
- Develop and implement environments for quality assurance, development, etc.
- Deploy and Support applications on premises on Azure environment.
- Responsible for infrastructure security and making sure environments are secure, reliable, scalable, and automated.
- Providing direct server support during various operations such as deployment and general production.
- Collaborating with developers to make sure new environments meet requirements and conform to best practices.
- Designing, implementing, and testing agreed-upon infrastructures.
- Automating deployment of Linux applications, system configurations and security settings.

Qualifications and Experience:
- Bachelor and/or master's degree in Computer Science/Software Engineering or similar relevant field
- Minimum 6-8 years of related experience in professional industry.
- Working on tools like Jenkins, Azure, Terraform, Ansible, Subversion, Docker, or relevant.
- Experience with configuration management (Chef, Puppet, Ansible, and/or Salt)
- Experience with CI/CD tool chain (Jenkins, Kubernetes, Spinnaker)
- Solid networking experience (TCP/IP, routing, load balancing, DNS)
- Experience with Static & Dynamic application testing.
- Using Windows & Linux Servers on VMWare, IIS, JBOSS, SQL Server, ORACLE.
- Advanced level scripting experience (Python, Ruby, Bash, PowerShell).
- Experience working embedded with development teams, helping them automate/optimize
- Excellent verbal and written English communication skills.
- Flexible attitude and versatile personality.

Duration of the Assignment:
The duration of the assignment is up to 1 year which is further extendable upon requirement.

3.   UI/ UX designer (IT Wing)

A dynamic UI/ UX designer who will be responsible for the user experience (UX) and user interface (UI) design of our various digital assets. (s)he will ensure that all elements of the online user experience are optimized for improved usability, usefulness, and exceptional visual design. The Consultant will evidence a passion for delivering adaptive and creative solutions to UI/UX design problems by staying up to date with best practices and emerging trends in user experience design and user interface technology.

Scope of Services:
- Investigating user experience design requirements for our suite of digital assets.
- Translate user behavior and research into actionable data.
- Ability to clearly communicate research and design ideas to rest of the team and upper management.
- Developing and conceptualizing a comprehensive UI/UX design strategy for the brand.
- Producing high-quality UX design solutions through wireframes, visual and graphic designs, flow diagrams, storyboards, site maps, and prototypes.
- Designing UI elements and tools such as navigation menus, search boxes, tabs, and widgets for our digital assets.
- Testing UI elements such as CTAs, banners, page layouts, page designs, page flows, and target links for landing pages.
- Providing advice and guidance on the implementation of UX research methodologies and testing activities to analyze and predict user behavior.
- Adhering to style standards on typography and graphic design.
- Design, build, and maintain highly reusable JavaScript, HTML and CSS code.
- Optimize existing user interface designs.
- Test for intuitivity and experience
- Combine creativity with an awareness of the design elements.

Qualifications and Experience:
- Bachelor and/or master's degree in Design, Computer Science, Software Engineering or similar relevant field
- Minimum of 4-6 years UI/ UX design experience for digital products or services.
- A portfolio of professional UI/UX design work for both web and mobile platforms.
- Working knowledge of any combination of the following technologies and software: Sketch, InVision, UXPin, Balsamiq, Framer.js, Quartz Composer, Visio, iOS, Android, Design Systems, and Adobe Creative Suite.
- A team player but can work independently too.
- Excellent problem-solving skill.
- Excellent written and verbal communication skills.
- Multi-tasking and time-management skills, with the ability to prioritize tasks.
- Expert knowledge of CSS, CSS extension languages (Less, Sass), and CSS preprocessor tools.
- Expert knowledge of HTML5 and its best practices.
- A history of deconstructing user behavior to create an improved experience for users, showcased in the form of blog posts, articles, screencasts, etc.
- Proficiency using Git version control.
- Proficiency using the command line.

Duration of the Assignment:
The duration of the assignment is up to 1 year which is further extendable upon requirement.

4.   Senior Software Engineer (Java)

Scope of Services:
- Develops software solutions by studying information needs, conferring with Business Team, studying systems flow, data usage, and work processes, investigating problem areas; and following the software development lifecycle.
- Write efficient code based on feature specifications
- Develop user interfaces
- Perform unit tests
- Manage Team
- Participating in application design activities

Qualifications and Experience:
- Bachelor and/or master's degree in Computer Science/Software Engineering or similar relevant field
- Must have 6-8 Years of Experience for Snr. Software Engineer with a reputed IT organization
- Experience building Java EE applications
- Familiarity with Object-Oriented Design (OOD)
- Good knowledge of popular Java frameworks like JSF and Spring MVC
- Hands on experience with Java applications, high-availability applications, Web-based applications, JSF, Hibernate, Spring, Oracle SQL, SOA, Primefaces, Spring AOP, using Oracle database in a Linux environment will be plus.
- Complete knowledge of Java Architecture, Java Design Pattern and Software Development Lifecycle.
- Problem-solving skills
- Communication Skills
- Leadership and Teamwork Capabilities
- Ability to manage changing priorities and deadlines

Duration of the Assignment:
The duration of the assignment is up to 1 year which is further extendable upon requirement.

5.   Senior Software Engineer (.NET)

Scope of Services:
- Lead the technical direction and vision for the architecture, design, and the implementation of our Globalization Studio features.
- Take responsibility for uninterrupted operation of these features in the production environment.
- Interact with our customer and partner community to empower them and to learn from them.
- Mentor junior engineers to help them grow.
- Develops software solutions by studying information needs, conferring with Business Team, studying systems flow, data usage, and work processes, investigating problem areas; and following the software development lifecycle.
- Determines operational feasibility by evaluating analysis, problem definition, requirements, solution development, and proposed solutions.
- Documents and demonstrates solutions by developing documentation, flowcharts, layouts, diagrams, charts, code comments, and clear code.
- Prepares and installs solutions by determining and designing system specifications, standards, and programming.
- Improves operations by conducting systems analysis and recommending changes in policies and procedures.
- Updates job knowledge by studying state-of-the-art development tools, programming techniques, and computing equipment, and by participating in educational opportunities, reading professional publications, maintaining personal networks, and participating in professional organizations.
- Supports and develops software engineers by providing advice, coaching, and educational opportunities

Qualifications and Experience:
- Bachelor and/or master's degree in Computer Science/ Software Engineering or similar relevant field
- Must have 7-9 Years of Experience for Principal Software Engineer with a reputed IT organization
- Extensive experience developing C#, MVC, MVVM /Entity Framework Core.
- Excellent working experience on Angular 11 and 12, NodeJS or equivalent, ASP.Net applications (both UI and back-end services) along with a strong understanding of architecture and data management.
- Hands on working experience on Enterprise Service Platform, Micro services architecture and minimal services.
- Outstanding working experience on React Native, React JS and Ext.js.
- Implementation experience on Software engineering Design Patterns like Dependency Injection, Unit of work and Repository patterns, Structural, Behavior and Creational.
- Experience with UI scripting languages including: TypeScript, jQuery / JavaScript, HTML / HTML5, CSS.
- Strong expertise in structured, Web/Internet, business process, Web Service, SOAP, Restful APIs, XML, OOA / OOP design patterns.
- Good working experience on .Net 5 and .Net 6 with Visual Studio 2022.
- Database experience with SQL Server, Oracle including design, development, and data processing (OLTP, batch processing, ETL, reporting and ODAC)
- Excellent Working experience of code versioning tools **such as Git, SVN,** Team Foundations servers **and** Mercurial.
- Well versed with project management concepts and tools like Jira, Microsoft Team, Microsoft Project, Microsoft Office 365**.**
- Technical / project lead, architecture, and other desired experience.
- Experience with Project Management Tools / Techniques under the light of Multiple Software Development Model's like Agile, Waterfall, Prototyping.

- Good working experience in designing enterprise software solutions using Object-oriented analysis & Design (OOAD) methodologies and preparing related formal documentation including functional requirements, technical design documents, architectural diagrams, database diagrams, class diagrams.
- Have an ability of maintenance and support of software product line
- Experience in Review, enhance and accept proposed code modifications and audit all code changes and test execution to ensure end product quality.
- Ability to provide analysis and recommend solutions as well as implement the solutions.
- Ability to maintain QA test environment.
- Work closely with product managers, designers and developers to track, report, and verify bugs
- Ability to learn new technologies and a desire to improve technical skills.
- Design patterns, and OO design.
- Working knowledge of the Software Development Life Cycle processes
- Experience in managing teams and coordinating across departments
- Excellent Communication Skills.
- Leadership Qualities
- Ability to manage changing priorities and deadlines
- Ability to collaborate in a team environment, and able to adapt effectively and quickly to a rapidly changing environment.
- Strong verbal and written communication skills

Duration of the Assignment:
The duration of the assignment is up to 1 year which is further extendable upon requirement.

1. **Position Applied for**: _____

2. **Name**: _____

3. **Current Residential Address**: _____

   Telephone/ Mobile No.: _____ **E-Mail Address**: _____

4. **Date of Birth**: _____ **Citizenship**: _____

5. **Education** [Bachelor and above only in reverse chronological order] [*Indicate college/ university and other specialized education giving names of institutions, degrees obtained, and dates of completion/ obtainment*] [most recent first]:

Degree	Major Subjects	Name of University	Division/Grade	Passing Year

6. **Membership in Professional Associations**: _____

7. **Other Trainings/ Certifications** [*Indicate significant and relevant trainings/ certifications only since completion of requisite qualification(s)/ degree(s) as mentioned under "Education"*]:

Title	Institute	Year	Please indicate whether it is a Workshop/ Diploma/ Certification/ Training Cource or else	Local/ Foreign (If foreign, please write country name)
			Example; Workshop	

8. **Countries of Work Experience**: [*List countries where applicant has worked in the last ten years*]:

9. **Employment/ Consultancy Record** [*Starting with the present/ last position, list in reverse chronological order every employment held by applicant since graduation*]:

Dates of Employment		Employer/ Consulting Organization	Position Held	Supervisor Name & Designation	Employer Contact (Email/ Mobile/ Phone)
From	To				

10. Specific Experience [For each of key assignment that best demonstrates your suitability for this position, fill the below columns]:

A) **Assignment(s) Undertaken that Best Illustrates Applicant's Capability to Handle the Responsibilities/ Scope of Services as Required in/ by the TOR** [*Among the assignments in which the applicant has been involved, indicate the following information for those assignments that best illustrate the applicant's capability to handle the tasks respecting the TOR vis-à-vis Employment/ Consultancy Record as listed under No. 9 above*]	B) **Detailed Tasks Assigned** [*List all tasks performed by applicant under this assignment; please also indicate the level of involvement and responsibility*]
Name of assignment or project: _____ Client/ employer: _____ *(Government/ Semi Government/Provincial Government organisation, Private Organization, International Organization, Local or International Donor Agency etc)* Main project features: _____ Position(s) held: _____ From (Month/ Year): _____ to (Month/ Year): _____ Activities performed: _____ (Including nature and level of services performed/ delivered)	**Total Volume/ Value and Duration of the Project (where applicable):**

NOTE: Please be specific.

11. Certification:

I, the undersigned, certify to the best of my knowledge and belief that this form correctly describes my qualifications and my experience

Yes ☐   No ☐

I understand that any willful misstatement described herein may lead to my disqualification or dismissal, if engaged.

(Please just write your full name with CNIC No) _____ Date: _____
       Signature of Applicant   (Day/ Month/ Year)