

# Job Responsibilities for various Roles in Information Technology TechProjects specializes.

## **1. Labor Category: Application Developer**

**General Experience:** Minimum 4 years of technical experience

### **Functional Description:**

Create and Develop Web Application specifications. Development and Delivery of web forms in ASP.NET, including C#, SQL Server OR Oracle, OR Open Source java, AngularJS and Node.js. etc., Develop specifications for full-stack apps which include Web server, relational database, and client-side servers. Design pattern specifications using object-oriented analysis/design. Perform Testing/Evaluation. Perform unit testing & documentation of programs and systems. Perform Code Review. Monitor and implement information technology quality assurance standards. Develop and prepares documents for the general design of solutions that meet system and security requirements, including the selection of alternative approaches. Develop specifications for databases, communication systems, hardware, network, security, storage and software configurations. Perform System Coding. Create the program code in various technologies such as .NET OR Open Source Java etc. Provide general programming assistance to other MIS programmers/projects as may be needed. Test and maintain the program code to make sure it meets all the functional requirements.

**Minimum Education for Application Developer - 1:** A Bachelor's degree from an accredited college or university and four (4) years of experience performing the foregoing functions or a High School diploma and Six (6) years of experience performing the foregoing functions.

**Minimum Education for Application Developer – 2:** A Bachelor's degree from an accredited college or university and seven (7) years of experience performing the foregoing functions or a High School diploma and Nine (9) years of experience performing the foregoing functions.

## **2. Labor Category: Quality Assurance Analyst**

**General Experience:** Minimum Four years of technical experience

**Functional Description:** Work closely with Management and Programming teams in testing applications in either manual and/or automated test environments. Makes recommendations, if needed, for approval of major systems installations. Prepares milestone status reports and deliveries/presentations on the system concept to colleagues, subordinates, and end user representatives. Responsible for development of project Software and/or Systems Quality Assurance Plan and the implementation of procedures that conforms to the requirements of the contract. Responsible for verifying that each functional component of the project follows a defined process, which is in conformance with contractual requirements? Reports findings to project staff, line management of the organization, and the customer, as appropriate. Provides an independent assessment of how the project's development process is being implemented relative to the defined process and recommends methods to optimize the organization's process.

**Minimum Education for Quality Assurance Analyst - 1:** A Bachelor's degree from an accredited college or university and Four (4) years of experience performing the foregoing functions or a High School diploma and Six (6) years of experience performing the foregoing functions.

**Minimum Education for Quality Assurance Analyst - 2:** A Bachelor's degree from an accredited college or university and seven (7) years of experience performing the foregoing functions or a High School diploma and Nine (9) years of experience performing the foregoing functions.

### **3. Labor Category: Business Analyst**

**General Experience:** Minimum Three to Five years' experience working on full lifecycle IT development projects or Business Process related projects.

**Functional Description:** Develop business and technical requirements. Identify user stories and translate them into technical requirements as required. Prepare detailed EDP project plans, by identifying milestones/scheduling tasks/due dates. Responsible for efficient implementation of projects by managing changes to achieve project outputs by performing root cause analysis, management communication and client relationship management in partnership with Service Support team members. Provide Management Reporting and Information dissemination. Prepare executive summary status reports, by reviewing progress reports of scheduled tasks, activities, summarizing, analyzing data, to report progress to management on automation projects. Liaison with IT project managers and analyze their Infrastructure needs. Draft comprehensive reports, in narrative and statistical form, by applying knowledge of data processing techniques, researching, analyzing data, applying agency formats, to provide a written summary of results and recommendations.

Coordinate Testing of application. Develop test cases and acceptance criteria. Coordinate QA testing and acceptance between QA staff, developers, and stakeholders. Review the requirements with the stakeholders for their approval. Analyze and document current systems and processes as currently implemented. Make recommendations for improvements based on client feedback. Work directly with business stakeholders, clients, designers, developers, and engineers to coordinate the building of applications to specifications and on time. Use Business Analysis tools such as JIRA, &MS office & MS Visio.

**Minimum Education for Business Analyst - 1:** A Bachelor's degree from an accredited college or university and Three (3) years of experience performing the foregoing functions or a High School diploma and Five (5) years of experience performing the foregoing functions.

**Minimum Education for Business Analyst - 2:** A Bachelor's degree from an accredited college or university and seven (7) years of experience performing the foregoing functions or a High School diploma and Nine (9) years of experience performing the foregoing functions.

### **4. Labor Category: Product Manager**

**General Experience:** Minimum 6 years of relevant technical experience

**Functional Description:**

Perform Design and implementation. Co-design products with business leadership, understanding and predicting the needs of the business leadership, leading the execution and delivery of software releases using defined hybrid-agile software development life cycle process. Coordinates development and ongoing refinement of the feature backlog for all releases and any dependencies. Leads the translation of software features into technical requirements (Features) following agile principles. Defines software release plan and scope with the scrum master and development teams. Act as a single point of contact for all engineering and innovation related items for assigned products. Work as a Product owner designing and developing software solutions  
Work in a software development environment using one of the AGILE SDLC methodologies and direct a team to deliver a successful project

**Minimum Education for Product Manager - 1:** A Bachelor's degree from an accredited college or university and Seven (7) years of experience performing the foregoing functions or a High School diploma and Nine (9) years of experience performing the foregoing functions.

## **5. Labor Category: Project Manager**

**General Experience:** Minimum of 5 years project management experience overseeing development projects using various Software Development Lifecycle methodologies. At least 8 years of combined IT experience that includes business and system requirements definition, system design, system development and/or system testing.

### **Functional Description:**

Develop comprehensive project management plans. Lead the planning and implementation of project. Facilitate the definition of project scope, goals and deliverables. Define project tasks and resource requirements. Manage project execution from start through completion. Plan and schedule project timelines. Track project deliverables using appropriate tools. Provide direction and support to project team. Provide management reporting and information dissemination. Constantly monitor and report on progress of the project to all stakeholders. Present reports defining project progress, problems and solutions. Publish project meeting agendas and minutes from discussions. Provide project quality assurance. Develop quality assurance metrics to measure outputs. Implement and manage project changes and interventions to achieve project outputs. Ensure all projects changes meets the developed quality assurance metrics before it is released to the user community. Work in a software development environment using SCRUM and Agile Development Methodologies and Sprint Delivery.

**Minimum Education for Project Manager - 1:** A Bachelor's degree from an accredited college or university and Five (5) years of experience performing the foregoing functions or a High School diploma and Seven (7) years of experience performing the foregoing functions.

**Minimum Education for Project Manager - 2:** A Bachelor's degree from an accredited college or university and Seven (7) years of experience performing the foregoing functions or a High School diploma and Nine (9) years of experience performing the foregoing functions.

## **6. Labor Category: Scrum Master**

**General Experience:** Minimum 7 years of technical experience

### **Functional Description:**

Perform Planning and implementation. Lead planning and/or implementation of applications & participate in the design and/or testing phases. Facilitate the definition of project missions, goals, tasks, and resource requirements. Assist in the resolution of conflicts within and between projects or functional areas. Provide Management Reporting and Information dissemination. Develop methods to monitor project or area progress; and provide corrective supervision if necessary. Prioritize and organize the user stories into weekly sprints and conduct daily scrums to track progress. Provide weekly status to the PMO and all relevant stakeholders. Project Management and Agile OR Scrum Development Methodologies experience required. Perform functional business analysis and work on planning and execution of sprint delivery.

**Minimum Education for Scrum Master:** A Bachelor's degree from an accredited college or university and Seven (7) years of experience performing the foregoing functions or a High School diploma and Nine (9) years of experience performing the foregoing functions.

## **7. Labor Category: Solution Engineer**

**General Experience:** Minimum of 7 years of technical experience

### **Functional Description:**

Responsible for the design of one or more applications or services within an organization and is part of a solution development team. Have a balanced mix of technical and business skills and will work with an enterprise architect for strategic direction. Responsible for adapting client requirements to

systems or technical requirements in order to develop an appropriate solution for the customer. Responsibilities include analyzing process flows, consulting with clients, preparing design documents, taking part in project meetings, and supporting pre-sales staff. Should demonstrate customer service skills, creativity, business acumen, strong communication abilities, and time management.

Provide high level of expertise in the architecture, design and functionality of business applications; Understand the business objectives. Provide specialized knowledge of system architecture requirements and programming specifications. Design and conceptualize information systems solutions based on customer needs and technical considerations. Analyze job tasks, organizational structure and user requirements to provide system-wide solutions. Apply analytical expertise to assist in defining, analyzing, validating and documenting complex operating environments, states of technology and current processes. May supervise a staff of programmers and/or other engineers. Works independently without direct supervision. Use of Web services/ Oracle technologies/ Microsoft/ Open source Java technologies etc.

**Minimum Education:** A Bachelor's degree from an accredited college or university and Seven (7) years of experience performing the foregoing functions or a High School diploma and Ten (10) years of experience performing the foregoing functions.

## **8. Labor Category: Database Administrator**

**General Experience:** Six years of related experience

**Functional Description:** Develops and maintains necessary public synonyms, data base links, and user access controls. Provides database tuning and monitoring to insure effective and efficient data access to include comparison of performance ratios, tuning of memory configuration, disk I/O, and application software, design and maintenance of the physical layout of the databases and calculating disk space requirements for database tables and indexes. Responsible for developing project plans, justifications, guidelines, and controls.

Monitor and Maintain Oracle or SQL server Databases. Develop, maintains, enhances databases and information systems by defining physical structures and organization of databases and data sets. Reorganize databases at appropriate intervals, monitoring performance, implementing backup, recovery and restart procedures, utilizing the latest releases of database software in order to optimize performance, minimize storage requirements and support applications or systems areas. Prepare executive summary status reports by reviewing progress reports of scheduled tasks, activity.

**Minimum Education for Database Administrator - 1:** Bachelor of Science Degree from an accredited college or university and four (4) years of total IT experience performing the foregoing functions or a High School diploma and Six (6) years of experience performing the foregoing functions. At least four (3) years of the total experience must have been in programming data base systems.

**Minimum Education for Database Administrator - 2:** Bachelor of Science Degree from an accredited college or university and Seven (7) years of total IT experience performing the foregoing functions or a High School diploma and Nine (9) years of experience performing the foregoing functions. At least Five (5) years of the total experience must have been in programming data base systems.

## **2. Labor Category: Technical Architect / Technology Lead**

**General Experience:** Seven years of technical experience

**Functional Description:** Plans technical architecture for the business environment. Maps business requirements to products. Develops architecture strategy to support business goals. Designs technology architecture. Provides product overview and component strategy. Designs the planning process and approach. Provides high level of expertise in the architecture, design and functionality

of business applications; Understands the business objectives. Providing specialized knowledge of system architecture requirements and programming specifications. Designs and conceptualizes information systems solutions based on customer needs and technical considerations. Analyzes job tasks, organizational structure and user requirements to provide system-wide solutions. Applies analytical expertise to assist in defining, analyzing, validating and documenting complex operating environments, states of technology and current processes. May supervise a staff of programmers and/or other engineers. Works independently without direct supervision.

**Minimum Education:** A Bachelor's degree from an accredited college or university and seven (7) years of experience performing the foregoing functions or a High School diploma and Ten (10) years of experience performing the foregoing functions.

#### **10. Labor Category: Computer Systems Analyst**

**General Experience:** Four years of related experience

**Functional Description:** Analyzes user needs to determine requirements and conducts feasibility studies. Identifies resources required for each task. May supervise a small support staff and/or serve as liaison to client staff. Researches developments in field of expertise and applies them to the client environment including emerging technologies, lessons learned, best practices, and assessment methodologies. Interfaces with client personnel at all organizational levels. Develops white papers and system documentation. Converts functional specifications to technical specifications. Works independently without direct supervision. Possesses an understanding of requirements analysis and requirements management, along with broad familiarity with a range of technology solution areas and current knowledge of industry trends and developments. Works closely with customers, managers and other technical team members to synthesize information into a clear development approach. Has extensive experience with full lifecycle development methodologies, including the Rational Unified Process, in particular Use-Case development and UML Modeling. Possesses excellent written and oral communication skills and has excellent time management, job scoping, and estimating skills as well. Assists project manager with the planning and re-sourcing of design, development, testing and delivery phases of projects

**Minimum Education for Computer Systems Analyst - 1:** A Bachelor's degree from an accredited college or university and three (3) years of experience performing the foregoing functions or a High School diploma and Five (5) years of experience performing the foregoing functions.

**Minimum Education for Computer Systems Analyst - 2:** A Bachelor's degree from an accredited college or university and Seven (7) years of experience performing the foregoing functions or a High School diploma and Nine (9) years of experience performing the foregoing functions.

#### **11. Labor Category: Enterprise Architect**

**General Experience:** Ten years of technical experience

**Functional Description:** Contribute to the design and creation of initial points of view, assets and service offerings that use emerging technologies. Perform technology architecture and infrastructure design activities, test and deployment activities and refine and enhance architecture and framework.. Responsible for understanding new software and systems technologies that are emerging in use, driving the initial assets and engagements using these technologies. The Enterprise Architect will be responsible for establishing system information requirements to develop large scale information systems. They will, design architecture to include the software, hardware, and communications, ensure compatibility, compliance, and regulatory requirements and evaluate work flows, organization, and planning. Enterprise Architecture professionals have diverse, technology-centric backgrounds, have experience in delivering solutions based on advanced technology and are self-starters who are enthusiastic about technology and have a deep personal interest in working on the leading edge.

**Minimum Education:** A Bachelor's degree from an accredited college or university and Seven (7) years of experience performing the foregoing functions or a High School diploma and ten (10) years of experience performing the foregoing functions.

**12. Labor Category: IT Subject Matter Expert (SME)/Consultant -TECHNICAL**

**General Experience:** Eight years of relevant IT experience

**Functional Description:** Define procedures or standards with respect to what the right or best way to implement an emerging technology would be for an IT organization. Define performance objectives and determine acceptable performance levels. Provide recommendations for procedural and technology improvements. Define and plan the future of the IT organizations. Act as the "go to" person for questions and problems within his/her area of technology expertise. Conduct research on emerging technologies. Assist in identifying best technology options and create technology adoption road- maps. Collaborate with customer IT teams to implement new technologies. May supervise a staff of Sr. IT specialists, Sr. Programmers and/or other engineers. Works independently without direct supervision.

Provides advanced specialized scientific and engineering and other necessary related functional support required to complete IT/telecommunication tasks. Specifically, provides high-level advice, planning, troubleshooting, integration, research, design, development, testing, modeling, simulation and training on the most complex work requirements. Participates as needed in all phases of software development with emphasis on the planning, analysis, testing, integration, documentation, training and presentation phases. Applies principles, methods, and knowledge of specific functional areas of expertise to specific task order requirements.

**Minimum Education:** A Bachelor's degree from an accredited college or university and Eight (8) years of experience performing the foregoing functions or a High School diploma and Ten (10) years of experience performing the foregoing functions.

**13. Labor Category: IT Subject Matter Expert (SME)/Consultant - BUSINESS**

**General Experience:** Eight years of relevant IT experience

**Functional Description:**

To ensure the facts and details are correct so that the project's/program's deliverable(s) will meet the needs of the stakeholders, legislation, policies, standards, and best practices. Have a deep understanding of a particular process, function, technology. Understand requisite knowledge that underlies effective decision-making and is able to describe where anomalies or flaws may occur in the decision-making for his/her area of expertise. Define procedures or standards with respect to what the right or best way to implement an emerging technology would be for an IT organization. Define performance objectives and determine acceptable performance levels. Provide recommendations for procedural and technology improvements. Define and plan the future of the IT organizations. Act as the "go to" person for questions and problems within his/her area of technology expertise. Conduct research on emerging technologies. Assist in identifying best technology options and create technology adoption road- maps. Collaborate with customer IT teams to implement new technologies. Specifically, provides high-level advice, planning, troubleshooting, integration, research, design, development, testing, modeling, simulation and training on the most complex work requirements. Participates as needed in all phases of software development with emphasis on the planning, analysis, testing, integration, documentation, training and presentation phases. Applies principles, methods, and knowledge of specific functional areas of expertise to specific task order requirements.

**Minimum Education:** A Bachelor's degree from an accredited college or university and Eight (8) years of experience performing the foregoing functions or a High School diploma and Ten (10) years of experience performing the foregoing functions.

#### **14. Labor Category: System Data Network Specialist**

**General Experience:** Three years of related technical experience

**Functional Description:** Monitors and responds to complex technical hardware and software problems including network infrastructure and communication hardware and software configuration problems. Provides primary interface with vendor support service groups or provides internal analysis and support to ensure appropriate notification during outages or period of degraded system performance. Provides LAN server support. Provides system administration support of network, web and/or communication systems including Local Area Network (LAN) and Wide Area Network (WAN) systems. This includes administration of user accounts, passwords, email, chat, and FTP. Maintains servers, creates monitoring reports and logs, and ensures functionality of links. Monitors web site for acceptable performance and user accessibility. Establishes back-ups and monitors site security. Coordinates network administration and performance requirements with others in the information systems function. Identifies, analyzes and documents long-range requirements and schedules resources related to the enterprise network. Responsible for configuration management and documentation of network and system topologies and/or web site. Prepares technical implementation plans that provide integrated solutions including actions, milestones, timelines and critical paths required for complete solutions. Prepares activity and progress reports regarding the network performance.

**Minimum Education for System Data Network Specialist - 1:** A Bachelor's degree from an accredited college or university and Three (3) years of experience performing the foregoing functions or a High School diploma and Five (5) years of experience performing the foregoing functions.

**Minimum Education for System Data Network Specialist - 2:** A Bachelor's degree from an accredited college or university and Seven (7) years of experience performing the foregoing functions or a High School diploma and Nine (9) years of experience performing the foregoing functions.

#### **15. Labor Category: Data Analyst**

**General Experience:** Three years of related technical experience

**Functional Description:** Create and maintain all databases required for development, QA, Staging and production usage. Involve in implementing all the Data model changes. Perform the capacity planning required to create and maintain the databases. Perform data analysis and troubleshooting. Write complex SQLs and integrate technologies with internal and external data sources. Perform ongoing tuning of the database instances. Perform Performance tuning, Performance monitoring, Replication, Log shipping, Database Mirroring, Database capacity planning, Users and Role creation and monitoring Perform Data Extraction. Extract critical data from various data sources, load data into a centralized Microsoft SQL Server Database. Prepare data feed files for a business intelligence database and identify new data sources. Create new Extract, Transform and Load (ETL) jobs using Microsoft SSIS. Perform Data Analysis and Reporting. Interpret the data to answer the question of why it is important, and to suggest recommended actions for management to take in response to it. Work with SQL 2008/2008R2/2012/2014 database management and related products from Microsoft including PowerShell, Windows 2008R2/2012R2 Server operating systems. Perform advanced SQL queries and reading query execution plan, developing and performance tuning complex, SSRS and SSIS-2012 packages. Use SQL 2012 on High Availability configuration, support, and troubleshooting.

**Minimum Education for Data Analyst:** A Bachelor's degree from an accredited college or university and Three (3) years of experience performing the foregoing functions or a High School diploma and Five (5) years of experience performing the foregoing functions.

## **16. Labor Category: Document Specialist / Technical Writer**

**General Experience:** 2 years of related experience

**Functional Description** Prepares, edits, maintains and updates technical documents such as reference manuals, user manuals, specifications, as well as training materials throughout the lifecycle of the system or the project. Responsibilities also include, but are not limited to, maintaining technical documentation, assuring the accuracy of technical documents, maintaining technical libraries. Graphics Specialist - Provides graphic design support for IT and telecommunication projects. Responsibilities include, but are not limited to, graphics design/use as well as operations setup of computer graphic systems such as desktop publishing, CAD, GIS, HTML and multimedia.

Technical Writers prepare instruction manuals, journal articles, and other supporting documents to communicate complex and technical information more easily. Work with computer hardware engineers, scientists, computer support specialists, and software developers to manage the flow of information among project workgroups during development and testing. Must be able to understand complex information and communicate the information to people with diverse professional backgrounds.

**Minimum Education:** A Bachelor's degree from an accredited college or university and two (2) years of experience performing the foregoing functions or a High School diploma and four (4) years of experience performing the foregoing functions.

## **17. Labor Category: Help Desk Specialist**

**General Experience:** Minimum Two years of help desk/user support experience

**Functional Description:** Provides phone and in-person support to users in the areas of e-mail, directories, standard Windows desktop applications, and applications developed under this task or predecessors. Serves as a technical point of contact for troubleshooting hardware/software PC and printer problems. Responds to and diagnoses problems through discussions with users. Includes problem recognition, research, isolation and resolution steps. Typically, is able to resolve less complex problems immediately, while more complex problems are elevated to higher-level Help Desk tiers. May involve use of problem management database and help desk systems. Working knowledge of PC operating systems, e.g., DOS, Windows, as well as networking and mail standards and work on a help desk, information systems development and other work in the client/server field, or related fields. Demonstrated ability to communicate orally and in writing and a positive customer service attitude.

**Minimum Education:** A Bachelor's degree from an accredited college or university and two (2) years of experience performing the foregoing functions or a High School diploma and Four (4) years of experience performing the foregoing functions.

## **18. Labor Category: Change Management Specialist**

**General Experience:** Two years of related technical experience

**Functional Description:** Focus on maximizing an organization's human capital resources and assisting them to facilitate change. Utilize a variety of disciplines, such as project management and process improvement, to help employees accept organizational change. Develop system design specifications. Responsible for designing, developing, implementing and deploying end-to-end build, package, and deployment systems in a large-scale environment. Work with development team throughout the organization to determine and address critical needs. Identify cross program dependencies and support the development and implementation of migration plans to address those dependencies. Support change management initiatives by developing leading Change Champion network, evaluating change readiness and organizational impact assessment results. Responsible for designing, developing, implementing and deploying a structured change management approach and methodology. Provide input, document requirements and support the

design and delivery of training programs. Conduct impact analyses, assess change readiness and identify key stakeholders. Apply a structured methodology and lead change management activities. Apply a change management process and tools to create a strategy to support adoption of the changes required by a project or initiative. Support the design, development, delivery and management of communications.

**Minimum Education:** A Bachelor's degree from an accredited college or university and Two (2) years of experience performing the foregoing functions or a High School diploma and Four (4) years of experience performing the foregoing functions.

## **19. Strategic Information Technology Advisor**

**General Experience:** 8 years of technical experience

**Functional Description:** Highly specialized knowledge and expertise in one or more vertical disciplines such as Public sector , State and City's information technology needs, law enforcement, banking, transportation, or other such disciplines as required to define /establish the functional or business direction of an enterprise, agency, or inter-agency requirement. Aligns the business processes and information technology strategy with the conditions and circumstances of the functional environment and establishes effective performance measures. Contributes to the definition and implementation of planning processes and/or systems at the enterprise level including both strategic and operational activities. Analyze job tasks, organizational structure and user requirements to provide system-wide solutions.

Understanding customer requirements and business objectives. Providing strategic advice on using technology to achieve goals. Managing IT initiatives and collaborating with the technical staff. Provide expert advice, consultation and leadership in designing, coordinating and maintaining project goals, objectives and priorities. Develops strategies to meet short- and long-range goals for the applicable program and assures that strategies reflect most promising directions. Applies new methods, approaches, and technology to new and unusual situations. Collaborates with and provides expert advice to all organizational levels with the agency. Provide architecture direction/solutions for business & technical designs for large complex applications using Enterprise Java technology OR Microsoft (.net) technologies OR Oracle Technologies or any other relevant technologies. Customize the frame works for which we rarely find the resources, such as Cúram Framework OR latest angular frame works to meet project functional and business requirements. Provide architectural design and development estimates utilizing Object Oriented Design Patterns and enforcing architectural standards and best practices. Develop system architecture using component diagrams, development and runtime hardware and software configurations.

Highly specialized knowledge and expertise in an uncommon or emerging related information technologies which is hard to find in marketplace.

**Minimum Education:** A Bachelor's degree from an accredited college or university and Eight (8) years of experience performing the foregoing functions or a High School diploma and Eleven (11) years of experience performing the foregoing functions. 2 years of experience in the IT advisory role or equivalent experience needed.