

Standard Job Profile

POSITION TITLE:

ARCHITECT (SOFTWARE ARCHITECT, TECHNICAL ANALYST, DESIGNER, IMPLEMENTER)

Profile-IT® Role Groups: Analyst Roles, Designer Roles

Profile-IT® Roles: Systems Analyst, Technical Designer, Test Designer, User Interface Designer, Database Designer, Implementer.

STANDARD DESCRIPTION:

“The Software Architect role is responsible for the software architecture, which includes the key technical decisions that constrain the overall design and implementation for the solution.”

“The Systems Analyst Role leads and coordinates the requirements elicitation and technical use case specification by outlining the system's functionality, and delimiting the system for example: identifying what actors exist, and what use cases they will require when interacting with the system.”

“The Technical Designer role is responsible for designing a part of the systems, within the constraints of the requirement, architecture and development process for the project.”

“The Test Designer Role is responsible for defining the test approach and ensuring its successful implementation. The role involves identifying the appropriate techniques, tools and guidelines to implement the required tests, and to give guidance on the corresponding resource requirements for the test effort.”

“The User Interface Designer coordinates the design of the user interface. User-Interface Designers are also involved in gathering usability requirements and prototyping candidate user-interface designs to meet those requirements.”

“The Database Designer is responsible for designing the persistent data storage to be used by the system.”

“The Implementer/Programmer role is responsible for developing and testing components, in accordance with the project's adopted standards, for integration into larger subsystems. When test components such as drivers, stubs, interfaces, objects, or services must be created to support testing. The Programmer/Implementer is also responsible for developing and testing the test components and the corresponding sub systems.”

POSITION RESPONSIBILITIES:

ITIL® Process Assignment:

- Change Management Process (Systems Analyst, Technical Designer, Test Designer, User Interface Designer, Database Designer)

ITIL® Process Objectives:

Change Management Process:

- Carry out of changes in a timely manner with minimal risk and within cost constraints.

ITIL® Key Performance Indicators:

- Number of successfully introduced changes.
- Ramifications of unsuccessful changes.
- Decrease in process costs.

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- Meeting deadlines.

RUP®/USDP Discipline Assignment:

- Requirements Discipline
- Analysis and Design Discipline
- Implementation Discipline
- Test Discipline

RUP®/USDP Discipline Purpose:

- Requirements Discipline
 - Obtain agreement on what the change should do.
 - Provide Implementors with better understanding of what the change must do.
 - Delimiting the system and defining the boundaries for the change.
 - Establish the basis for technical planning.
 - Establishing basis for estimating cost and time for the change.
 - Define access interface for interaction with the system.
- Analysis and Design Discipline
 - Transform requirements into a design for the change.
 - Evolving a robust technical architecture for the change.
 - Adapt design in line with environment constraints, like performance, locality, etc..
- Implementation Discipline
 - Define the change's structure or framework (Code / Class / Module / Object Structure / Program / Service, etc.).
 - Construct the implementation objects / classes / components / modules / programs, etc..
 - Test objects / classes / components etc. as units.
 - Integrate Units into a packaged change.
- Test Discipline
 - Identify change defects in quality.
 - Demonstrate that assumptions in design is feasible for execution.
 - Validate the execution and function of the change.
 - Validate that the requirements are met.

Interactions:

- Change Implementation Roles: Analysts, Designer Implementers, Project Management.
- Other Operations and Support Roles: Technical Administrator, Tools Specialist

COMPETENCIES:

Key Personality Attributes as per Gallup International StrengthFinder® Strengths:

- **Arranger:** People strong in the Arranger theme can organize, but they also have a flexibility that complements this ability. They like to figure out how all of the pieces and resources can be arranged for maximum productivity.
- **Deliberative:** People strong in the Deliberative theme are best described by the serious care they take in making decisions or choices. They anticipate the obstacles.
- **Focused:** People strong in the Focus theme can take a direction, follow through, and make the corrections necessary to stay on track. They prioritize, then act.
- **Maximizer:** People strong in the Maximizer theme focus on strengths as a way to stimulate personal and group excellence. They seek to transform something strong into something superb.
- **Responsibility:** People strong in the Responsibility theme take psychological ownership of what they say they will do. They are committed to stable values such as honesty and loyalty.

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- **Learner:** People strong in the Learner theme have a great desire to learn and want to continuously improve. In particular, the process of learning, rather than the outcome, excites them.
- **Command:** People strong in the Command theme have presence. They can take control of a situation and make decisions.
- **Communication:** People strong in the Communication theme generally find it easy to put their thoughts into words. They are good conversationalists and presenters.
- **Ideation:** People strong in the Ideation theme are fascinated by ideas. They are able to find connections between seemingly disparate phenomena.
- **Positivity:** People strong in the Positivity theme have an enthusiasm that is contagious. They are upbeat and can get others excited about what they are going to do.
- **Strategic:** People strong in the Strategic theme create alternative ways to proceed. Faced with any given scenario, they can quickly spot the relevant patterns and issues.

Please note that these are only guidelines. Different strengths may be required based on the dynamic of the team or the organization.

Profile-IT® Role Competency:

Software Architect Competency:

- **Critical Decision Making, Leadership and Authority:** “Highly proficient in making critical implementation and architectural decisions while leading in detailed technical architecting and design of technical solutions.”
- **Experience in the Problem Domain with Thorough Understanding of Requirements and Technologies Involved:** “Highly competent in comprehending the problem domain within the industry of my specialty, keeping in mind the specific requirements identified and technical boundaries implicated by the technology available. “
- **Solution Design:** “Highly competent in compiling and documenting a detailed technical architecture, addressing all aspects of the technical solution including the logical, physical, platform, package, applications, communication and security components, to support the stated objectives of the solution.”
- **Provide Project Vision, Motivation and Mentoring:** “Highly effective and credible when providing mentoring, motivation, credibility and leadership to technical team members during a solution implementation.”
- **Knowledge and Experience in the Solution Implementation Process and Software Engineering Domain:** “Knows solutions implementation processes like the iterative development approach well in the software engineering and deployment domain, and use them every day to successfully design and implement solutions that meet customers requirements.”
- **Change Impact Awareness:** “Can design a solution, conscious of the impact of technical changes and modifications to existing solutions, on a business' processes, and process outcomes, and can assess and prioritize changes, aware of the business risks around these changes.”

Systems Analyst Competency:

- **Articulating the Business Problems and Opportunities for Solving these Problems:** “I can effectively understand and interpret business process and other output, operational problems, causes and possible opportunities, to facilitate into remedial activity and improvement through technology application.”
- **Solution Design Knowledge and Skill:** “I can design and document a solution architecture, with sufficient detail on all technical components and business considerations,

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- to facilitate a detailed solution design.”
- **Technology Domain Knowledge:** “I am very familiar with the technical domain in my industry of specialty including the logical, physical, platform, package, applications, communication and security components of a solution.”
 - **Technology Impact on Business Application:** “I know how to effectively position the place of the system or system components and its interfaces within a business process to automate and improve on the outcome, efficiency and cost of the processes.”
 - **Appropriate Process Fit of the System:** “I know how to effectively position the place of the system or system components and its interfaces within a business process to automate and improve on the outcome, efficiency and cost of the processes.”
 - **Change Impact Awareness:** “I can effectively determine the impact of technical changes and modifications to existing solutions, on a business' processes and process outcomes, and can assess and prioritize changes aware of the business risks around these changes.”

Technical Designer Competency:

- **Systems Requirements Interpretation:** “I am highly competent in technical designing of a solution within the constraints of user requirements, covering aspects such as logical, physical, platform, package, applications, communication and security components.”
- **Systems Architecture Understanding:** “I am highly competent in understanding and interpreting the overall systems architecture, to know how to best fit the detail design of the technical components of the solution, within the architecture's constraints and capabilities.”
- **Software Design Techniques, Object Oriented Design, UML, etc.:** “I am highly proficient in software design techniques like object orientated design, procedural design and functional decomposition using notations like UML, class diagrams and other techniques to communicate the designs.”
- **Detailed Specification for Implementation:** “I am highly competent in documenting clearly and with traceability, the detailed software and component specifications of a system, for programmers to use to develop, test and implement technical components.”
- **Use-Case, Class, Flow and Testability Design:** “I am highly competent in using technical use-cases, class, flow diagrams, test cases and architectural drawings to communicate my technical designs to implementers of a system.”

Test Designer Competency:

- **Knowledge of Testing Approaches, Techniques and Tools:** “I am very knowledgeable and capable of defining and specifying the testing approaches, testing techniques and tools used for systems testing.”
- **Knowledge of Systems and Architectures Being Tested:** “I know the systems that I test well.”
- **Test Design Experience:** “I am highly competent in designing, and planning the testing efforts for the implementation or changing of a system.”
- **Programming and De-Bugging Skills:** “I am highly competent in programming and debugging software components.”
- **Practice of Testing:** “I know how to test systems well.”

User-Interface Designer Competency:

- **Usability Design of Non-Web User Interfaces:** “I am highly competent in designing usable user interfaces for non-web client applications.”
- **Design Prototyping:** “I am highly proficient in building design prototypes of user interface designs, in line with systems user expectations.”

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- **Standards of Design:** “I am highly competent in setting and enforcing user interface design standards and criteria for implementation.”
- **Usability Design of Web User Interfaces:** “I am highly competent in designing usable user interfaces for web applications.”
- **User Interface Design Tool Knowledge:** “I am highly competent in using tools and applications for the design of user interfaces (Web and Non-Web).”

Database Designer Competency:

- **Data Modeling and Database Design:** “I am highly competent in data modeling and designing of databases to cater for the required data models of a system.”
- **Implementing Data and Database Designs:** “I am highly competent in implementing data designs and configuring databases according to designs.”
- **Systems Architecture Design and Limitations of Platforms:** “I am highly competent in detailed designing of data and persistence management systems architectures and components.”
- **Database Administration:** “I am highly competent in administering and optimizing databases.”
- **Data Flow Design:** “I am highly competent in designing and documenting a system's data flow.”

Implementer Competency:

- **Programming Knowledge:** “Highly competent in programming in logic and languages like C++, C#, Visual Basic, and other third generation developing platforms.”
- **Familiarity with Testing and Test Automation Tools:** “Highly familiar with software component and system testing activities and the use of automated testing tools to test application components.”
- **Familiarity with Development Tool Sets:** Highly familiar with development tool sets and model and service driven development architectures like .NET, Studio Site and Application Developer, Visual Studio, IBM Rational Rose XDE Developer, BizTalk® Business Integration Suite and others.
- **Interpreting Designs:** Highly effective at interpreting and executing development according to detailed designs.
- **Software Design Techniques, Object Oriented Design and UML:** Knowledgeable of software design techniques like object orientated design, procedural design and functional decomposition using notations like UML, Use Case, Class diagrams and others to communicate the designs.

TOOL KNOWLEDGE AND SKILL:

To be included as per the requirements of the Position. Include technology solutions, platforms, versions etc.