Competency Framework and Assessment

Agenda

- Introduction

- Functional Competency Framework and Assessment

- Leadership Competency Framework and Assessment

- Technical Competency Framework and Assessment

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Functional Competency Framework and Assessment

Functional Competences

Human resources	Sales & Marketing	Business Planning	Finance
Supply Chain	Strategy	Product Thinking	User Experience
	Engineering	Data	Delivery

*Further slides will cover a sample implementation for a delivery organization

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List of Competences for Delivery Organization - Sample

Leadership Competencies	Professional Competencies	Functional Competencies
• Building a Collaborative Culture and Mindset • Coaching for performance • Delivers on commitment • Intrapreneurial Mindset • Story-telling • Displays confidence • Being trustworthy • Networking • Displaying diplomacy • Building and Managing Partnerships	• Problem Solving • Conflict resolution • Negotiation • Decision Making • Drives urgency • Emotional Intelligence • Communication skills • Tenacity • Curiosity	• Commercial savviness • Project/Program Management • Innovation Management • 6-sigma toolset • Market insights & Analysis • Business Strategy • Technology Strategy • Delivering against commitment • Clients' s Service Offerings

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Mapping of Role Requirement to Competences - Sample

SI No	Outcomes expected from the Role	Leadership Competencies	Professional Competencies	Functional Competencies
1	Building trust	• Being trustworthy • Networking • Displaying diplomacy • Building and Managing Partnerships	• Emotional Intelligence • Communication skills • Tenacity	• Market insights & Analysis • Business Strategy • Technology Strategy • Delivering against commitment
2	Understand client's business and markets	• Intrapreneurial Behaviour	• Curiosity	• Business Strategy • Technology Strategy • Market insights & Market Analysis
3	Understand commercials		• Problem Solving • Conflict resolution • Negotiation	• Commercial savviness
4	Drive innovation & Continuous improvement	• Intrapreneurial Mindset		• Innovation Management • 6-sigma toolset
	Ensure Customer Delight	• Story-telling • Displays confidence	• Problem Solving • Conflict resolution • Negotiation	• Program/Project Management • 6-sigma tool set

Case Study based approach to Functional Assessment - Sample

Project Background-

Rajasthan's Health department has a multitude of software applications operating in silos, which have been developed and are operated by different agencies. As such, in absence of any common platform, department is unable to draw any useful information for action and review from these siloed systems. These MIS systems can broadly by classified as below:

a. **Patient focused systems:** PCTS (NIC), IAP (external vendor), BSBY (M&H), SNCU online (Unicef)

b. **HR systems:** Raj eOffice (DoIT), ASHASoft (NIC), CHRIS (external vendor)

c. **Facility systems:** eAushadhi (CDAC), eUpkaran (CDAC), m-SNA (external vendor)

The department has undertaken an initiative to integrate these different systems, residing on different platforms and being operated in siloes using a common facility code/ beneficiary's code (Aadhaar/ Bhamashah/ PCTS IDs) and an integrated platform for reporting.

The integrated platform will collect selected information from these systems, and present consolidated information for review and action at State and District levels.

Please respond to the following questions based on the situation provided:

1. Please provide at least two operational challenges you will face in meeting the requirements of integrating siloed applications using one platform **(commercial savviness)**

2. Please provide at least two technical challenges you will face in meeting the requirements of integrating siloed applications using one platform **(innovation management)**

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Leadership Competency Framework and Assessment

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Company Core Values - Sample

Integrity

Transparency

Quality

Teamwork

Execution with passion

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Values to Behaviours Mapping

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Integrity	• Has a coherent Values and Belief system • Walks the talk
Transparency	• Displays a "show and ask" mindset • Ensures that status of project is available on demand to all those who need it
Team work	• Works seamlessly with colleagues within and outside immediate circle of influence • Is not closed to ideas and thoughts irrespective of the source
Quality	• Displays genuine concern for client's problems and tries to resolve it at the earliest • Thinks beyond a tactical relationship with a client
Execution with passion	• Is personally innovative and works with others on becoming even more so • Believes that every work output delivered has their personal signature on it

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Levelling is based on …

- Competence is a combination of Knowledge, Attitude, Skills, Habits

- Knowledge and Skill can be measured through self-assessments

- Attitude and Habits are through behavioural assessments

- Three sources of inputs that will be used for levelling:
  - Psychometric – MBTI, DICS, Hogan etc
  - 360-degree assessment (Self, Manager, Peers, Customers)

Psychometric

360-degree Assessment

Consolidated Report

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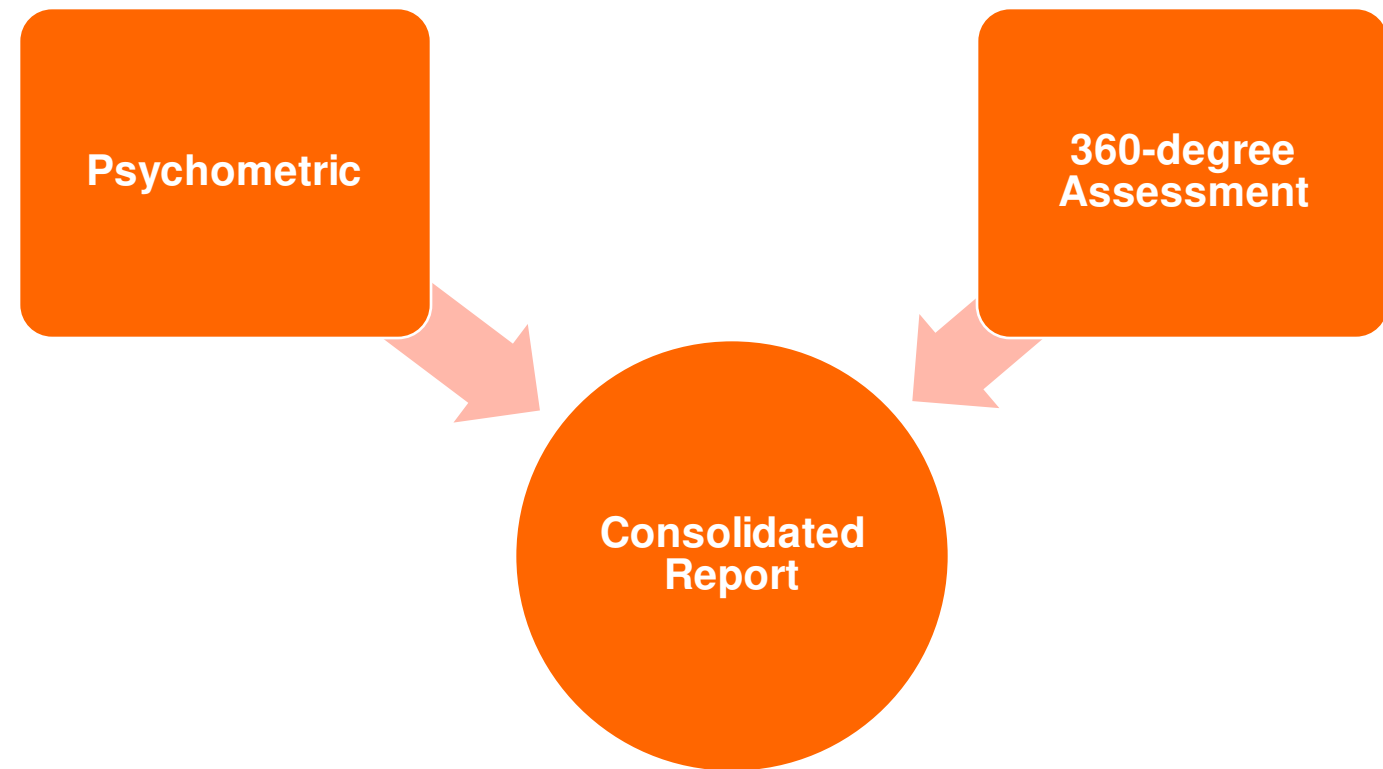
Technical Competency Framework and Assessment

Technical Competency – Skills

Core Skill Areas
Software Requirements
Software Design
Software Construction
Software Testing
Software Sustainment

Crosscutting Skill Areas
Software Process and Life Cycle
Software Systems Engineering
Software Quality
Software Security
Software Safety
Software Configuration Management
Software Measurement
Human-Computer Interaction

Reference - Software Engineering Competency Model(IEEE)

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Competency Levels

❖ Software Engineer

❖ Senior Software Engineer

❖ Tech Lead

❖ Senior Tech Lead

Competency Level Notations

➢ Beginner (B)
➢ Intermediate (I)
➢ Advance (A)
➢ Expert (E)

Competency Levels for Software Requirements Management Work Activities				
Skill Area: Software Requirements				
Skill: Requirements Management				
Competency Levels	**Software Engineer**	**Senior Software Engineer**	**Tech Lead**	**Senior Tech Lead**
Activities	Follows defined procedures to support requirements management (B) .	Assists requirements management through the use of appropriate tools.(I)	Implements requirements management plans for projects.(A)	• Prepares requirements management plans for projects.(E) • Modifies existing and creates new guidelines, templates, tools, and techniques for requirements management. (E)

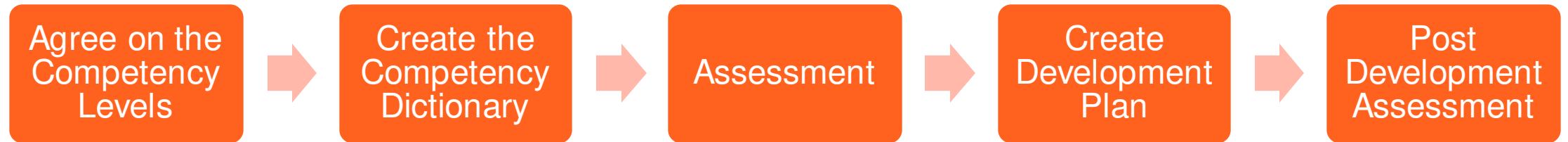# Competency Mapping - Software Requirements Elicitation

Skill Sets	Competency Levels			
	Software Engineer	Senior Software Engineer	Tech Lead	Senior Tech Lead
Software Requirements Elicitation			1. Identifies important stakeholders. (A)	
		1. Assists in engaging different stakeholders to determine needs and requirements. (I)	2. Engages different stakeholders to determine needs and requirements. (A)	
		2. Assists in applying different methods to the project as appropriate to elicit requirements. (I)	3. Applies different methods to the project as appropriate to elicit requirements. (A)	1. Creates new ways to engage and communicate with stakeholders, the management team, and developers in requirements activities (E)
	1. Assists requirements engineers with preparation of surveys and other elicitation instruments. (B/I)			2. Selects appropriate methods to engage and communicate with stakeholders in requirements activities. (E)
			4. Assists in negotiating conflicts between stakeholders in requirements elicitation. (A)	3. Negotiates conflicts between stakeholders in requirements elicitation. (E)

Software Requirements Skill Sets and Activities by Competency Level

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Learning and Assessment Framework

Proficiency	Blended Learning	Assessment Type	Assessment Category	Learning Outcomes
Beginner	80% Self-Paced 20% ILT	✓ MCQ	Knowledge	• Knows all terms associated with the technology • Understands importance of the technology across various industries • Can solve simple problems – based on predefined rules
Intermediate	50% Self-Paced 50% ILT	✓ MCQ ✓ Simple Case Studies	Knowledge + Skill	• Can understand more complex situations that are not first of its kind • Can apply the technology to these more complex situations successfully • Is able to understand the contextual influence on the usage of the technology and vice versa
Advanced	20% Self-Paced 80% ILT	✓ MCQ ✓ Medium Case Studies ✓ Project Roadshow	Knowledge + Skill + Demonstration	• Is able to review implementations of others • Is able to apply the technology to situations of any complexity • Proactively manages risks associated with usage of a technology based on experience and knowledge
Expert	20% Self-Paced 80% ILT	✓ MCQ ✓ Complex Case Studies ✓ SME Interview ✓ External Journal Submission	Knowledge + Skill + Demonstration	• Knows how to compare and contrast related technologies • Can create solutions from scratch • Is able to review implementations effectively • Is able to perceive new use cases of technologies

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Competency Development Framework

Agree on the Competency Levels → Create the Competency Dictionary → Assessment → Create Development Plan → Post Development Assessment

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SME Profile

Bhaskaran Srinivasan

- Chief Academic Officer @ UNext Learning Pvt Ltd

- Oversees and provides direction for academic initiatives, design and delivery of programs for mid and senior levels

- Previously, Director – R&D @ Philips Healthcare. Set up the Philips Innovation Campus in Bangalore creating an inspiring culture of innovation, product development and engineering for the organization.

- Strategy Advisor for Product Start-ups

- Certified EFQM and CMM assessor

- Accredited CEO Coach, Coaching Foundation of India

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Thank You