Test Engineering - Assessment Questions

Whiteboard Session - Test Manager & Lead

- Team dynamics (structure, distribution, dev-qa ownership model, communication and collaboration)
- Test Process
    - Test Estimation
    - Test Planning
    - Test Design
    - Test Execution
    - Test Suites
    - Test Documentation
    - Test Tool Set - Test Management Tool, Defect Management tool, ALM
- Automation Framework/Tool set
- Automation Strategy
- Automation Efficiency & Governance
- NFR Testing (Performance, Security, Accessibility, Resiliency, Scalability and Availability Test)
- NFR Tool Set
- Test Environments
- Test Metrics and Measurement
- Test Governance - Acceptance Criteria and Exit Criteria, Go/No-Go Decision Criteria, Automation cadence, Release cadence etc
- Continuous Integration

Question	Why we ask?	How to score/rate? (1 lowest - 5 highest)	Weight?	What data can we pull to quantify?	Notes
What is current Test Engineering Process? Any specific concerns or challenges identified and action in pending or progress?	To understand the overview of the current e2e process and initiatives around identified challenges. Also evaluate the maturity of the current process & culture and to understand the motivation to change exist.				▪ How long is the testing cycle? - <VJ> Added a line item to get details </VJ> ▪ When is testing conducted by the QE? <VJ> Already taken care </VJ> ▪ How much is automated vs manual (duration)? <VJ> Already taken care </VJ> ▪ Cross browser testing? <VJ> Already taken care; added cross device and platforms </VJ>
What is the Test Team structure and distribution (location, capabilities, domain/verticals, vendor based)?	To identify the current opportunities to overcome challenges due to team structure and distribution, mostly silo and varied ownership leads to diverse framework, process and practice	0 - Team is completely outsourced 1 - Distributed across location, with consultants at distributed ODC 2 - Distributed across location, with consultants co-located with the team 3 - Distributed across location without consultants 4 - Co located based on Vertical/capabilities 5 - Co located as part of their Scrum Team			
Are we having separate team for Regression Automation within the domain/vertical team or do we have horizontal team for Release/integration Certification (automation/manual)?					
How long does the testing cycle takes for each release cycle?	To gain current testing cycle details and becomes a platform for further discussion on process, automation, best practices etc.				

What is your Test to Dev ratio? Is it consistent across your product organization?	To understand the challenges for automation and support CI/CD pipelines	1 - < 30% 3 - between 35% - 40% 4 - between 40% - 50% 5 - 50% or Combined engineering model (rotation within scrum team)			
How do you manage your Test Case Repository? What strategy and tool set is used to organize and track test execution process?	To evaluate the current practice of test case management and pitfalls that impact to identifying regression suite relevant to the change introduced	1 - Not managing Test Cases; tribal knowledge and random test activities 2 - No specific tools used; but word and excel used to create, manage the test creation and execution 3 - Test management tool - Open Source tools not effectively configured to manage and track execution across releases and functionalities 4 - Test management tool - Open Source or Enterprise tool configured and organized test cases based on functionality and logically based on suite 5 - Meets 4 rating + Integration with Automation framework or execution platform or CI orchestration tools to initiate and report test execution.		Review Test Management Tool and Test Repository	
Does your test execution summary report generated from TM tool used to make Go/No Go release decisions?	To evaluate the aspects of the process, tools used to know the status of the test execution				
What process is used to do Test Estimation? Do you update and track the test effort across the project?	To understand the allocation of efforts on automation, test data preparation and functional test prep/execution and regression. Also to understand whether test efforts are estimated during agile sizing	1 - No Estimation Process 2 - Ratio based estimation 3 - Estimation based on traditional functional points 5 - Sprint Sizing & Planning - Planning Poker/Other methods		Review Test Plan and Sprint Planning	
What is the acceptance criteria and sign off criteria for test execution across different phases of a release?	To understand the maturity of the current process and inclining toward the quality aspects				
Do we practice TDD, ATDD or BDD approach as part of the engineering practice?	To understand their strategy on shift left approach	1 - Standard Process - Test Plan Execution Automation 2 - Shift Left Process -Test Prep Automation P1/P2 Execution Automation P2/P3 3 - BDD Automation Execution 4 - TDD Automation Execution 5 - BDD & TDD (ATDD) Automation Execution		Review Automation Repo and Test Management Repo	

Does the Unit Test pass percentage and coverage metrics part of the acceptance criteria? What is the expected metrics for the code quality KPI's?	To understand the QE Team stands on governing code quality standards and metrics.				
How is the test suites classified and test case count respectively? Eg. smoke, acceptance, regression, UAT, Product Certification	To understand the distribution of the test cases to map with various need of execution and coverage aspects; how well the suites are intact to find feedback at various stages	1 - No clear classification of suites; just regression and feature suites are classified 2 - Smoke Suite is identified; but not further classification 3 - Suites are classified as Smoke, Acceptance, Regression, UAT & Prod Cert without Functional Tags 4 - Suites are classified and has functional tags to select for relevant component changes 5 - Automated Suites are classified and has functional tags to automatically select and run relevant regression while code commit.		Review Test Dashboard or summary report or test management tool	
What is the process to identify Regression Scope for a feature and integration aspects for a Release?	Just to understand the involvement and the strategy around regression scope to derive the effectiveness of the automation used to get feedback on the pipeline.				
What are different Test available? Unit Test, Component Test, System Integration Test and E2E Test	To identify the existence of test classification and strategy in cadence with standard automation test pyramid (Unit Test - 40% Component Test - 30% Integration/System Test - 20% and E2E/Acceptance Test - 10%)	1 - No segregation between UI & API Test 2 - UI Test are segregated but no API coverage exist 3 - Segregation of UI & API Test available 4 - Segregation of E2E, Component, System and Acceptance Test are available 5 - Segregation of E2E, Component, System and Acceptance Test with right coverage and ratio are available and measured		Information can be gather from the Test Repositories - Test Management System and Automation Code Repo along with Execution Dashboard for last two or three releases	
How do you identify the need for NFR Test? Do you include NFR Test as part of the feature test scope and regression scope?	To check whether the NFR Test needs are called out explicitly in the business or technical requirement documents or stories. Baselines and targets are well defined for existing and new feature sets.	1 - No specification of NFR requirements 2 - NFR requirements are provided without traceability and KPI's 3 - NFR requirements are defined with KPI's and profiling process is not in place 5 - NFR requirements are defined with KPI's and standard profiling process with Dev/Architect support in place		Information can be gathered from reviewing the requirements documentation, test plan/strategy, test summary report, sizing and profiling section with dev hand-off document	
What are different the NFR Test available? Do we run NFR regression for all releases?					
What are the tools used for Performance, Accessibility, and Security Testing?					

What is the current split between Manual and Automation test coverage(count)? What are roadblocks to meet 100% automation?	To understand the current automation coverage/gap and challenges to achieve 100% automation.	1 - Manual execution 2 - less than 30% automation coverage 3 - between 30% to 60% automation coverage 4 - between 60% to 80% automation coverage 5 - 90-100% automation coverage		Review Test Management and Execution Dashboard	
Do we have any i18n/l10n support to the core product?if so are we performing any horizontal testing to validate the localization specific changes?	To understand validation aspect of localization and strategy for future market expansion	1 - Outsourced 2 - Internally Managed with Manual coverage 3 - Internally Managed with Automation and Test Data management tool		Review Test Plan and execution artifacts	
Explain the Framework is being used? Are we using common framework across organization?	To understand the maturity of the framework	1 - Nascent 2 - Evolving 3 - Mature		Review artifacts, test & automation repo and run results.	
What are the strategy on Negative Testing, Fail-over Testing etc? Any specific open source libraries used like Chaos Monkey?					
What is the Automation tool set being used?					
How frequently the framework is getting enhanced based on the need? Current version of the Framework?					
How do we manage the test automation code and framework code? What tool is used to manage the versions? What type of branching strategy used for Test Automation and Framework Repositories?					
Is your test management tool integrated with automation test execution platform?					
How do you certify a build for testing? Do you have sanity/bvt/smoke suite and how is the coverage maintained?					
What percentage of application functionality does automation suites cover?					
What are the different Automation Test Suites available and used when? For ex: BVT, Sanity, Regression (Component, Integration, E2E, UAT)?					
Do we have Production Certification Automation Suite and does the test cover a high risk & frequently used production scenarios?					
How often the test cases are getting modified or refactored? What is the delivery process for these modifications?					
How many average no of test cases are getting modified between two major release?					
What is the Average Pass percentage of the current test suite (Module Vs Suite matrix)?					
What is the duration of single Automation run & Manual run (if any) for Integration Certification?					

What is the invalid failure rate of the Automated Regression Suite?					
How many key issues were identified in the last 6 major releases using automated Test script?					
Is your automation suite integrated with CI?					
What are the critical components in the automation?					
What are the environments supported by automation?					
How do you manage Test Data? Do you use any enterprise tool or in-house solution?					
Do you mockup or simulator or test harness for dependency components?					
What are the browsers supported currently? Coverage across browsers?					
What is the coverage split between UI & API automation?					
Are we compliant to SOX documentation standards? Do we have mandate of recording and storing test evidences, test plan, summary reports and sign off?	To validate the compliance and documentation aspects; which over documentation becomes challenges	1 - Highly documentation oriented 2 - Lean documentation oriented		Review the documentation process	
What is the Test Environment strategy and how do we trigger test execution on these environments?	To check on un-managed, managed and controlled environment strategy are available. Challenges pertaining to test environments and dependencies/roadblocks due to environments.	1 - Managed environments - QA & UAT 2 - Un-Managed, managed and controlled environment - Dev, QA, Dev-Int, QA-Int, Perf, UAT/Sandbox		Review the existing environment stack	
What is the difference in the test environments? Does the test environment mimic Production environments?					
Do we have environment and infrastructure validation automation scripts?					
What are the critical metrics and measurements which is measured in regard to quality, performance and security?	To understand the Metrics and KPI set for Product Delivery in each release cycle.	1 - No Metrics 2 - Metrics Defined but more project delivery specific 3 - Metrics Defined which governs the engineering rigor and quality aspects of code and test		Review Metrics Dashboard	