**Manual Testing- SDLC, STLC, Test Strategy**

**Q1) What is Software Development Life Cycle[SDLC]? [1]**

It stands for software development lifecycle. It is the process of developing software through business needs, analysis, design implementation, testing ,release and maintenance. It’s is a Complete life cycle of the product.

It includes the following different stages:

**1.  Requirement phase (BA-BRD) ,2.  Design phase (Designer-Wireframe)3.  Coding (programming),4.  Testing**  
**5.  Release (Production/Live environment),6.  Maintenance (Support)**

**Why It needed?**

Using SDLC the company build a software.it basically tells us where is software begins and how is end. **It ensures an application meets the needs of its users.**

**Q2) It inputs many different steps**

Once a client or stakeholder comes to any it company or any business analyst persons then he gives a raw requirement then business persons makes form a requirements analysis and prepares SRS (Software requirement specification),BRD and CR (Change Request).

**Then project planning is started** in included modeling, what model we are going to follow, what is the diagram, walk flow of the application, what is the budget of the project, how much resource we have. Then Designer makes the design and wireframe based on BRD.

**After that the requirements** will be break into several small pieces and each pieces will go to the development phase. Developer develop that pieces at separate format and they integrate and create(coding ).

**When design is complete** development is started, After development is complete testing phase comes to verify the application based on the BRD and wireframe and picture . And if it works fine then it goes to the production for development.

**2)What is Software Testing Life Cycle?**

Software Testing Life Cycle (**STLC**) is the testing process which is executed in systematic and planned manner. It is a process how to test a software.

**The main object of testing/Why it is needed?**

In STLC process, different activities are carried out to improve the quality of the product to deliver to the customer.--**it makes sure** of the Customer's reliability and their satisfaction in the application --**to find out** the defect in the software according to customer requirement is it working or not---**to improve** the quality, reliability & performance of the system with all check what all functions software supposed to do.

**What is Software Testing Life Cycle (STLC)? And steps of STLC?-** The testing of software has its own life cycle.  It starts analyzing the requirements.

1) **Requirement Analysis -**Understand requirement based on AC ,BRD, design- how business wants it

**2) Test Planning-** How I’II test, Where I’II test , Who will test, Cross browser, Cross flatform, Cross Development **3)Test Case Development –**Based on AC in the current project I write the test cases in Excel then upload it in Jira story

**4)Environment set up-** (Make sure Every require environment is there), Initially In QA environment I execute my test cases for that I make sure QA has the upload code for test

**5) Test Execution**-(Here defect life cycle will born) -When environment is ready then I start checking test cases . I follow the defect life cycle to complete any story.

**6) Test Cycle closure/ Deployment**- After perfectly fixed the defect or bug.

**BRD.WireFrame and Design, U.Story and AC and SME**

**1)What is a Business Requirements Document (BRD)?[2]**

It is a document that describes the details of the application functionalities which is required by the user. This document is written by the Business Analysts. It includes the business solution for a project and the documentation of customer needs and expectations. It focuses on the business objectives and distinguishes between the business solution and technical solution. The object of BRD is to satisfy the customer’s and business’ needs

### **2) What is Design and wireframe and difference of them?[2]**

**Wireframe** also known as a screen blueprint, is a visual guide that represents the skeletal framework of a website which is created by the designer. **Design is basically** an image or (nothing but a picture )which tells us how the web site should look like.

**Note -**I worked in different project, I have used design and wireframe. Design is basically an image or (nothing but a picture )which tells us how the web site should look like. The Difference between is that design is a picture and wireframe is more functional.

**3) What is User Story? Why do business write user story? [7]**

A user story is a description of a product feature which is used to define product backlog in a agile development workflow. The PB is a collection of U.S that derives future development for a product or service. **A user story defines the requirements for any functionality or feature.**

**Why do business write user story? --**A user story can be considered a starting point to a conversation that established the real product requirements. It defines the type of user, what they want and why.it is used in agile techniques to capture product requirements or functionality.

4) **What is Acceptance Criteria? [2]**

Acceptance Criteria are a set of statements, each with a clear pass/fail result, that can be measured and specify both functional and non functional requirements. It defines the boundaries of a user story and are used to confirm when a story is completed and working as intended. Every user story has AC.

**Note :**Whenever we get the BRD and based on that the business will write the stories and the acceptance criteria is written against story that you are to accept the story what are my acceptance criteria. So for each story’s there will be a Acceptance criteria which also will be provided by the business.

**Why to Write**

1)Its helps the PO to answer what exact value he needs to provide.2)It helps the team to gain a share understanding of the story or feature 3) It helps developer and testers to derive tests.4) It helps developer to know when to stop adding more functionality to a story.

**Example of U.S and A.C**

**U.S-** As a <type of user> I want<perform some text> So that I can <achieve some goal>

A**C-** Given <Some context> When <Some action is carried out> Then < a set of observable outcome should occur>.

**5Q- What AC Should be included and not included?**

|  |  |
| --- | --- |
| **Included** | **Not included** |
| Negative scenario of the functionality ,  Functional or non functional use case.  Performance concerns and guidelenss  End to end user flow | Code review was done  Non-Blocker or major issues  Performance testing performed  Acceptance and functional testing done |

6) **SME-Subject Matter Expert-**A Subject Matter Expert (SME) is someone who has a deep understanding of a function, process, technology, machine, material, or equipment.

**Story Point, Use case , Test Case , Test Data, Test Scripts,Test Scenario**

**Q-1-a)) Story Point-** is an estimation mechanism based on user stories. It is often used by scrum project to strongly focus on agile process to determine the difficulty of implementing a given story.[8]

**Q.b) How the story point setup?**

Ans. Based on the team velocity and complexity of the task.

**Qc).How to Estimate Story Points in Agile? (9)-** Story point estimation involves Work estimation, Effort estimation and cost estimation. It is a kind of relative estimation and it is typically performed at the [Product Backlog](https://www.visual-paradigm.com/scrum/what-is-product-backlog-in-scrum/) Grooming Sessions and the Product Backlog is evaluated by the team who responsible for the actual development and testing work.

**Note--**We have two week sprint. Beginning of the sprint we have sprint planning meeting. Based on that Product owner comes up with story/cart and he takes opinion from everybody. Once he takes the opinion and then he sets the story point and distributed it among the team.

Q**-2 a) What is use case , What is use case attribute and use case testing ? [37]**

A **use case** is a description of a particular **use** of the system by an actor (a user of the system).

**Use case testing** is a technique that helps us identify **test cases** that exercise the whole system on a transaction by transaction basis from start to finish.

**Use case attributes-** Information of documents, Description, objective, precondition, Post Conditions, System boundary, Actors, Primary flow, Alternative flow and Data element description etc.

**Example of use case-** As per user requirements we create the functionality that how to achieve user to fulfil their demand. **Like user** wants to sign up their website. Whenever user wants to use the application then how many steps is to follow to achieve their goal.

**Q 3) Test Case ? Contents of test case ? How to create it? [5]**

**A Test case** is a set of steps or actions which are executed to verify a particular feature or functionality of your software application. It is based on the use case.

**Example-** login scenario. Then if you want to test these scenario. Suppose 1) I have a UN and PWD, and 2) If you want to test these particular screen, you need to write step by step like a) Open your application b) Enter your UN and Pwd and 3) then click on the submit button, so these are all kinds of steps and these overall record is called Test cases.

**Contents of Teat cases-**Test case ID, title , description, Preconditions , Priority order, Requirements ID, Steps/Actions ,Expected and Actual Results ,Test Data.

**Note-** At the initial level the test case we will write in the excel sheet , then we will upload them into test management tool.

Q-**4) Test Data -****Test data** is any **data that is used in testing. So for instance, if you are testing a system**, you would want to give some input to the system . That input data is a test data. When the system accepts the input and process it and produces the output, you want to compare that output with some known output. So the output that you are expecting is again test data. Test data is of two types. One is the input test data. Input test data is the data that we enter into the system(that we type or somehow enter into the system) .The Output test data is what we are expecting the system to provide us. So test data can be input test data or output test data.

**Test Data can be Generated** – a) Manually 2)Mass copy of data from production to testing environment 3) Mass copy of test data from legacy client systems 4)Automated Test Data Generation Tools.

**Data should be generated before you begin test execution because**-- it is difficult to handle test data management .--Many testing environments creating test data takes many pre-steps or test environment configurations which is very time-consuming. --If test data generation is done *while*you are in test execution phase you may exceed your testing deadline. Test data should be regularly updated to avoid missing of any functionalities or newly added features.

**Test data commonly include the following types -**Valid **test data**. Invalid **test data**. Boundary **test data**. . .Wrong **data**. And Absent **data**.

**Q5) Test Scenario** - A description of a situation to be **tested**. **Test Script** - A set of instructions that define each step to be taken and the expected results of each step.

**Test Plan ,Strategy, RTM,BurnDown and Burn up Chat ,Team velocity and Team**

**Capacity**

**1)What is Test Plan? What to include in test plan?[3]**

1. **A Test plan** is a document which contains the plan for all the testing activities to be done to deliver a quality product.
2. It is derived from the Product Description, SRS, or Use Case documents for all future activities of the project.
3. The focus of the documents is to describe what to test, what not to test, how to test, when to test and who will do what test.
4. It is also includes the environment and tools needed, resource allocation, test technique to be followed, risks and contingencies plan.
5. It is a dynamic document and we should always keep it up to date.
6. Test plans documents guides us how the testing activities should go on
7. Success of the testing project completely depends on the test plan
8. It is one of the documents in test deliverables. Like other test deliverables the test plan documents is also shared with stakeholders. The stakeholders get to know the scope, approach, objects tools and schedule of software testing to be done.

**Who Prepare the Effective Test Plan?**

Test plan is usually prepared by the Test Lead or Test Manager and Testers involve in the process of preparing test plan documents. Once the test plan is well prepared, then the testers write Test Scenarios and Test cases based on test plan documents.

**How to prepare Effective Test Plan ? Test plan documents as per IEEE 829 Standards -**Test Plan Identifier, References, Introduction, Test Items, Features To Be Tested,Features Not To Be Tested, Approach, Pass/Fail Criteria, Suspension Criteria, Test Deliverables, Testing Tasks, Environmental Needs, Responsibilities, Staffing and Training Needs, Schedule, Risks and Contingencies, Approvals.

**Q-2) What is test Strategy? What is included? [4]**

A test strategy is an outline that describes the testing approach of the SD cycle. It is created from the BRD to inform project managers, tester and developers about some key issues of the testing process.

**It contains -S**cope and objective, purpose & responsibility, method of testing, new functions, total time and resources required for the project and the testing environment , Entry and Exis criteria, Test process and deliverables, Test Design techniques, Tools to be used, Standard to be used, Defect Tracking tools .

**Q-3 What is Requirement Traceability Matrix? Have you ever created this**?[6] Matrix is a nothing but a row column combination. It’s simply a table which you create in a Excel sheet. Traceability is used to know from where you come and where you going. RTM is a table that shows many many relationship between the requirement and test cases. Some time RTM can be a big matrix. So it can be divided into a number of tables. **It assures that proper test coverage has been fulfilled or not, Test cases writing or not. Each requirement will have one test cases.**

**RTM are of Two types**- 1) Forward and 2) Backward traceability.

**Forward Traceability means** that we are moving from earlier in the SDLC.Like we can set Business requirements are there first and then they are translated into detailed software requirements. BR 🡪 SR.

**Backward Tracibility –** Now we can see Software requirement. We can move back to Business requirements. This is an Backward Matrix**. Each requirement will have one test cases.**

**Note-** In every project we need RTM. In my project my QA lead / manager create this and at that time I work with them.I did not create this but I know howe to create RTM.

**Q4What is burndown and burnup chart ? what is the difference ? [10]**

**Burndown and Burnup Chart**-It is a graphical representation of the amount of estimated remaining work.

A [**burn down chart**](http://www.clariostechnology.com/productivity/blog/whatisaburndownchart) shows how much work is remaining to be done in the project, whereas **a**[**burn up**](http://www.clariostechnology.com/productivity/blog/whatisaburnupchart) shows how much work has been completed, and the total amount of work.

These charts are particularly widely used in Agile and scrum software project management and are used to track and communicate the progress of their projects.

**Bug and Bug Life Cycle**

1. **What is a Software Bug?**

**A mistake in coding is called error, the error found by Tester is called defect or bug. when the expected and actual behavior is not matching, this incident may be a bug.**

**Example of bug—1) If email is not sent 2) click on email link not active 3) Login without active 4)Right UN and Pwd but not login.**

**Bug Life Cycle**

It is a cycle which a defect goes through during its lifetime. In Software Development process, the bug has a life cycle. The bug should go through the life cycle to be closed.

**New**

**Assign Rejected**

**Active position Active ----🡪**

**Respond🡪 Test Deferred**

**Verify**

**Closed**

**New--**When I get the bug in the application ,I make sure to discuss with team member then

**Assign** the bug with proper defect documents to create a card in project management tool (jira) and After completing all the required formalities, it is sent to the developer or responsible person,

**Active -**When assign any bug then this bug is in active position. Development team respond and starts their work to fix the defect. After fixing ,the bug is passed to the testing team to test .

**Test –** The tester test it , whether it is fixed or not**. Verify—**The tester verify again before closing.

**Closing-** After verifying the fix, if the bug is no longer exist,then the bug will be assigned as closed.

1. **how do you log a defect?what do u consider before log a bug? How to raise a bug?**

Whenever I find a defect in the application, I check again and again and verify and then I make sure to discuss with team member then I create a card immediately in jira with proper description,step to reproduce,Image/vedio/files for proof, Expected and actual condition, Environment,Devices & browser understand then I log a bug.

1. **Rejected and Deferred Bug**

**Rejected**—If the system is not working according to the specifications and bug is just due to some misinterpretation then the team lead or the developer can mark such bug as Rejected.

**Deferred – If**

* the bug found during end of release, bud is minor or not important to fix immediately
* the bug is not related to current build and it is expected to get fixed in the next release.

**In such cases project manger /lead can set the bug status as deferred.**

**Note-** When I Joined at the beginning level, I am going to see so many discrepancies in my application, That’s why I should be very careful to log or qualify bug because I don’t know the application. Or

If you worked in a company for a log time it’s really easily to qualify a bug most of the time.

**Q.1)What is team velocity and Team capacity in agile?[8]**

**Team's velocity** is a measure of the amount of work a team can tackle during a single sprint and is the key metric in scrum. It is calculated at the end of the sprint by totaling the points for all fully completed user stories. Number of Story points delivered in a sprint is called velocity.

**Team's capacity -**Agile capacity planning allows a team to determine how many productive hours are available for the upcoming sprint, So that they can confidently commit for developing and completing a specific set of work in that time frame.  
Total number of available hours for a sprint is called Team's Capacity. Available hours calculated based on resources planned holiday and company holiday if any. Scrum Team capacity and velocity calculated based on team's productivity and business value delivered to customer. 

**Severity and Priority**

**Q 1) What is Severity or Priority ? [20]**

**Severity** is a parameter to denote the impact of a particular defect on the software. It means how sever defect is affecting the functionality.

1)It is related to the quality standards or functionality, 2) QA engineer determines the severity level of the defect 3) it is driven by the functionality 4) It’s value is objective and it’s value does not change from time to time.5) it is based on the technique aspect of the product 6) it is categories into five types- Critical, Major, Moderate ,Minor and cosmetic.

**Priority**-It is a parameter to decide the order in which defects should be fixed. It means how fast defect should be fixed.

1)It is related to the Scheduling to solve the problem, 2) priority of defects is decided in consultation with the client /manager.3) it is driven by the business value 4) It’s value is subjective and it’s value changes from time to time depending on the project situation .5) it is based on the customers requirements 6) it is categories into three types- High , Medium and high.

**Q 2) High Priority and High Severity -A Critical issue** where a large piece of functionality or major system component is completely broken.

**Example** –A)Submit button is not working on a login page and customers are unable to login to the application. or i) Key features failed and no work around ii) login button is not working

B) On a bank website, an error massage popup when a customer click on transfer money button.

**Q 3) High Priority and Low Severity** –Basic Features failed but it has a huge impact **on customer’s business. It affect the customers reputation. [22]**

**Example** –1)Misspelled company logo.2) Spelling mistake of a company name on the homepage.3) Company logo or tagline issues.

It is important to fix the issue as soon as possible, although it may not cause a lot of damage.

**Q4 ) Low Priority and High Severity-**An issue which will not affects customers business but it has a big impact in terms of functionality **. Key features failed but there is no impact on customer’s business. [21]**

**Example –**i)There is a crash in an application whenever a user enter 4 Digits in the age field which accepts max 3 digits.ii) Crash in some functionality which is going to deliver after couple of release. Iii) Web page not found when user click on a link(Which end user won’t use regularly).

**Q5 ) Low Priority and Low Severity**-A minor issue that imposes some loss of functionality but for which there is acceptable and easily reproducible workaround. And testing can proceed without interruption.

Example –Font family / font size or color or spelling issue / cosmetic issue which is within a paragraph or in the report. These kind of issue will not bother the customer much.

**Note-Spelling mistake of a company name on the home page won’t come under the low priority and low severity .**

**Q How to handle your Test scripts?**

**When I do Manual testing , Manual test cases is my test scripts. And In case of Automation, automation programing or coding is my test scripts.**

**Challenge**

**1)Agile challenge and Automation Challenge? [15]**

**2)Limitation of selenium**?

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**Agile Challenge –** The biggest challenge of agile is continuous change in the application, then continuous requirement change is due to continues change in the application. If continuous requirement change that means continuous development change then continuous integration change and then continuous testing. it should be again and again continuously. **Frequently** changing code base, has a risk of compromising on test coverage missing on testing certain area. The reality is that code is going to change everyday, that means everyday I have to test and I have to go back and test again and again.

**Solution-**

**1)** Testing process should be changed or modified according to the changing condition.

**2)**Definition of done should include testing metrics 3) all Information should be shared between the team member.4) Every test case and user story should be backward and forward traceability.

5) Regular resource code analysis can be taken to ensure that all requirements has been covered adequately from the coverage perspective.

**Other Challenge---1) Lack of communication 2) Not enough information 3) Frequently regression Cycle**

**Automation Challenge—**

**1)** Once at my company I need to test the video if it working or not. Then I learned how to do it. We know that Selenium can not handle or automate video testing, hence it does not having any locator (Xpath and CSS). So I had to handle that using “Sikuli”. At that time I watched some video, did some research on internet and then I also able to do.

**2) Sometimes it is very hard to handle the Dynamic elements,** Dynamic elements I means elements is keep changing. I had to work in a website, They had slide show in the web page. So every 5 minutes a new picture use to appear. New picture means new elements and it was hard to test. For that I kept all the elements in the excel sheet and attached that to my test cases. So whenever new element appears it would retrieve the X-path of the element from the excel sheet and work properly.

**3**) **When project goes on expending**, the regression testing work simply uncontrolled. Pressure to handle the current functionality, previous working functionality checks and bug tracking. It is also challenging.

**Others ---1) Image or text overlapping issue:**Selenium cannot automate or validate text overlapping issues or image overlapping issues. 2) Captcha, Bar Code: We cannot automate Captcha images as well as Bar Code also. 3) **Bitma**p comparison was not supported by Selenium, we manually did this.

1. We faced some difficulties in handling Dynamic objects/ elements in our web pages.
2. We can handle popup windows using selenium but in our application some popup windows were not handled using regular method.

**Limitations of Selenium…**

1) Selenium supports Web based Applications only, it doesn’t support Desktop Applications/Windows based Applications.

2) Selenium doesn’t have built-n Object Repository like UFT/QTP to maintain objects/elements in a centralized location, but we can overcome this limitation using Page Object model.

3) Selenium WebDriver (main tool in selenium’s tool suite) doesn’t have IDE (Integrated development Environment), so we need to write code for every Test step.

4) Selenium doesn’t have built-in Result Reporting facility, we can overcome this drawback using Testing Framework Assert Methods/Commands or using programming features.

**AGILE and SCRUM and Kanban**

1. **Agile methodology –**is a practice and helps continuous iterations of development and testing in the SDLC process. It breaks the product into smaller build.
2. **Iteration** -is single development cycle, usually measured as one week or two weeks.
3. **Agile and Water fall model-[16]**

**Agile -**Is a software development methodology based on iterative and incremental approach. It is mind set to deliver the software. It is an excellent way to deliver the software faster with high quality.

**In Agile model-**

* testing process starts from the beginning of the project and continuous throughout the project life cycle.
* Based on iterations. – End scope not fully defined – budget is defined for several iterations and – Client interaction is unlimited/ client is usually looking at every iterations

**Water Fall Model**-is a software development model. This model is a sequential model that follows a top down approach.

**In Water Fall model—**

* Testing starts after completing Development and Build phases
* Usually deliver the whole project at once
* Scope and funding is defined for the whole project
* Client interaction is limited/Customer dissatisfaction.

1. **Kanban VS Scrum-**

**Kanban** is Agile Methodology and It is a change Management method.

**Scrum is an agile software development framework that encourages iterative and incremental work.**

-Scrum requires specific roles whereas Kanban has no required roles

-Scrum based on timeboxed iterations, but Kanban timeboxed iterations optional.

- A Scrum board is reset after each sprint, A Kanban board is continuously used

-Scrum limits work in progress in each iteration, whereas Kanban limits WIP in each workflow

1. **Scrum of Scrum –** It is a scaling mechanism to scale the daily stand up meetings when multiple teams are involved. Its purpose to support in collaborating and coordinating their work with other team. The responsible person from each team attends the meeting and discuss their work and everything.
2. **Definition of Done -**It is a checklist of criteria that a product or project must satisfy to be considered completed. Sample of D OF Done -a) Documentation is complete b) Testing is complete c) Code has been reviewed d) the source code is committed on the server.
3. **What is hotfix and Patch ?** [19]

**Hotfix-**It is an instance fix. When a bug is found in prod , its known as hotfix and the developer try to fix a bug in production level. It is used to address a specific customer situation. It is not always publicly release. And update to fix a very specific issue.

**Patch** -It is a set of changes to a computer program or its supporting data designed to update ,fix ,or improve it. It includes Fixing security vulnerabilities, improving the functionality or performance. It is publicly release. And update to fix a known bug or issue.

# A Burn Up Chart is a tool used to track how much work has been completed, and show the total amount of work for a project or iteration

**Scrum**

**Q1**) Scrum is an agile software development framework that encourages iterative and incremental work and within this particular framework different team member, they work together and they solve some complex problem, design some features, deliver the product in a best possible way within this framework.

* 1)It is based on fixed length of iterations called sprint.2) It is a lightweight framework, it is not like water fall, V model and some other prototype framework.3) It is easy to implement and simple to understand.
* **Scrum has three elements- a) Roles b) Artefacts and c) Meetings**

**Q2) Scrum Roles- It consists of three elements- PO, SM and Development Team**

1. **Product Owner**-He is the owner of the product. He is responsible for **maximizing the value** of the final product and work of the development team. He provides the **vision for the team.** He talks to different business person to **get the requirements**. He is also responsible to **write the U.S** and set the AC for each User story. And he **makes sure that Product Backlog** is visible, transparent and clear and he guides the team to achieve the best goals and mission.
2. **Development Team**- development teams self-organize to perform the hands-on creative work of designing, building, integrating, and testing product backlog items into increments of potentially shippable functionality. This team is cross functional in which there is no distinction between the workers , all of them share the same title (Developer).

They help to establish the goal for the next sprint and determines which high-priority subset of product backlog items to build to achieve that goal.

1. **Scrum Master-**He is the facilitator of the scrum project. He is responsible is to ensure that the teams is functional, and everything keeps going. He keeps the team attached to the scrum theory, practices and rules. He solve the problem for the team for any other logistics issues, any other communication issues, any need to the team. [28]

Q3 **)Scrum Artefacts—**Scrum provides a set of artifacts that represents value and transparency in the project. These artifacts are a) Product Backlog and b) Sprint Backlog

**a) Product Backlog –** A product backlog is a list of the new features, changes to existing features, bug fixes, infrastructure changes or other activities that a team may deliver in order to achieve a specific outcome. The product backlog is the single authoritative source for things that a team works on. This is a list of system requirements and features needed in the project that the PO only creates and wants to delivered.

**b) Sprint Backlog --** The sprint backlog is a list of tasks identified by the Scrum team to be completed during the Scrum sprint. During the sprint planning meeting, the team selects some number of product backlog items, usually in the form of user stories, and identifies the tasks necessary to complete each user story.

The sprint backlog is a subset of the product backlog that must be implemented in a specific sprint.[31]

**Sprint Backlog Vs Product Backlog [31]**

**The sprint backlog** is a subset of the product backlog that must be implemented in a specific sprint.

The sprint backlog comes from the product backlog, Sprint backlog is an output of a sprint planning meeting. During each sprint planning session, the team returns back to product backlog to pick recently prioritized user stories for the sprint. Sprint backlog is owned by the Development Team and contains what and how it get’s delivered.

**Product Backlog** is a list of system requirements and features needed in the project that PO only creates and wants to be delivered .The product backlog acts as an input to the sprint backlog when comes to functionality. It can be changed, but only during the sprint planning meeting. The product backlog is the wish list for the product for the whole lifecycle. It defined with its detail nature what to be implemented. There are also bugs/issues, epic, user stories and themes are included in the product backlog.

**SCRUM METTING [12]**

**In order to have effective team communication toward the success of the project, meetings are planned at the start of the sprint and on daily basis to discuss the progress of the sprint and to overcome the obstacles in the project. Each sprint consists of the different phases—**

1. **Sprint planning Meeting –It is meeting for 2 to 3 hours where SM,PO and Scrum team sit together. SM will be responsible and initiates all of things.SM will decide what you have to do, how many story point you want to get, how exactly time you will take and what is different other activities you will perform? He assures the workload balance for each of the team member.. If any AC is missing , immediately he will update AC which is formed by PM. So all these things ,he will decide within the sprint planning meeting.**
2. **Daily scrum meeting/ Daily standup–After sprint planning we do daily stand up meeting. SM,PO,Engineer, Developer and QA Team are there. This meeting should be completed within 10 to 15 minutes. Everybody will take 2 to 3 minutes time to give the status. The daily meeting generally establish at the same place and same time in front of scrum board in the morning. -Discuss for the last day works and today’s work when everyone is present**
3. **Sprint review meeting/Demo—It is a meeting for 1 hour within the agile team(SM,PO,Dev QA) to display the sprint work to the customer(Owner, PO, Stakeholder). The stakeholder will give the feedback’ if it is okay then done. Otherwise- like stakeholder can say that “I don’t like this particular features ” or add some extra features or anything. Then feedback will be note down for further processing or for the next sprint planning. At the end of the completion of the sprint the meeting is planning.**
4. **Retrospective meeting/Retro—It is a meeting that takes place after the sprint review meeting and just before the sprint planning meeting of the next sprint. Normally it takes 1 and half hour. The aim of the this meeting is that- What exactly went well ,---What went wrong ----How can we improve and main purpose is to make sure that team member is happy or not. And what could be improved in the sprint. And what is needed to be improved in the next sprint.**
5. **Sprint Refinement / Grooming Meeting—It takes 1 hour/2 hours .It is nothing related to current meeting (Sprint 1 is going on ). This is all about for the next sprint like—What are different stories we are going to pick . They will make sure all the stories will implement as per BRD. And make decision what to do in next sprint planning. It involves stories which are not in the sprint but in the backlog.**

**Brief Discussion Meeting**

**At the beginning of the project, the project manager along with the scrum team (Dev,QA, PO, SM) arranges a meeting called sprint planning meeting. In this meeting the team decides -1) How much time it will take to complete the sprint.2) During the first half, the whole scrum team select the items from the product backlog which can be achievable in that sprint. 3) During the 2nd half , the development team prepares the sprint backlog which is a subset of product backlog that is needed to complete within the current sprint.**

**To accomplish the given task in the sprint, scrum master arranges the daily scrum meeting for 10 to 15 minutes. In this meeting each person addresses what he/she has done yesterday, what he is doing today and based on today’s task is there any blockers or not?**

**Sprint review meeting - then the PM arranges the meeting in which the whole team discuss about the work that was completed in the sprint and then they present it to stakeholders and the team gets the feedback from the stakeholders . This meeting is 2 hours for a two week sprint.**

**Sprint Retrospective meeting- This meeting during is 1 and half hours for a two week sprint.This meeting is facilitated by a scrum master. In this meeting the team discuss about what went well in the sprint and what is needed to be improved in the next sprint. After retro meeting Backlog Refinement meeting is happens.**

**Backlog Refinement meeting- In this meeting The scrum team discuss about the next set of items that are needed to achieve to meet the customers requirements. In order to change in the requirement lists, the project will continue to develop through sprint until the project meets all the customers’ requirements.**

**After that BA performs the UAT to check that all requirements are met and then they deliver the project to the customer to deploy the project. And lastly maintenance is given by the company. If there is any request to change in the requirements . The SM prepares the requirement Change list and the list has to get confirmed by the customers. Then only the developer start working on that change.**

**Q 17) How you get Test Data? Where you get your Test data in your company?**

We get test data from Product Owner.

**First, you have to see what type of test data it is. If it is user information like simple data (form related address or such things) we can generate on the fly because it does not require any validations. We create certain test data, such as I have to test the email subscriptions, for that, I have created some test accounts and store into our project (or, confluence page) and I use this email and password to test the test data. If it is User information it does not require to create, there is no authentication needed then we can generate on the fly. In our project, we have an excel sheet where we store all data and we get it/use it from there.**

**If it is an information that has to come from a service such as from backend or different places, we have to generate the test data. ( Now From where we get Test data ?)**

**If it is API related test data, then we need to run API locally and generate test data and store them.**

**If it is user information (it does not require any validation) then I can pull data from the database or I can generate on the fly depending on the scenario.**

**If I need some authentication information, such as, If I testing some credit card information for QA environment we have to setup sandbox account. Here business gives me credentials of this account, and I can use those data for testing.**

**For the Production environment, we never do automation by using data.**

**If I need to validate in our production environment, which we do lots of the times, I ask the business (PO), usually they do the validation because they have the credential information and live test accounts for test in production and sometimes they also provide me live lest accounts so then I use those account information to test in live but only manually.**

**Based on the testing and type of scenario we put data in property files, excel sheet, xml file in to our project. (sometimes we get the data from database or API call).**

**Q18) What do u when sprint start as a tester at the beginning of the sprint ?**

The first two days usually we are not going to get any story code into test. There will be nothing ready to test.

In the first day of the sprint planning we have sprint planning meeting which and with the rest of the meeting, it usually spend almost half of the day on meeting .Rest of the time the first half of the day and 2nd day, you know what First two days usually we don’t get any ready User stories to be tested.

Usually By the 3rd date we get story its ready to be tested.

The first day half of this day we spend in the meeting and rest of the day and the 2nd day I write test cases for the stories there I am going to work on and I writemanual test cases scenario in the excel sheet.

Usually First two days at the beginning of the sprint Since the stories are not ready I analyst and write test cases for each stories there I am going to work on and when there is done Then I write script for the automation as well.

**Q23) What feature should automate and which not?**

**Automation Features**- It is impossible to automate all testing .We selected the test cases for automation based on which( test cases )--

🡪Stabled in the application,--Repetitive tests that run for multiple builds,---Test That tend to cause human error.-->Tests that require multiple data sets🡪Frequently used functionality that introduced high risk conditions🡪Test that are impossible to perform manually🡪Test that take a lot of effort and time when manual testing.

**A feature which is stabled** in the application, manual testing already done ,no bug and ready for production, Under the smoke test and Core-Functional (which can be hampered the business ) that feature is for long term-which you have to test again and again – This is the best candidate for automation.

**What feature should Manual and which not?**

A feature which is not stabled and only for time being ,it should not be tested again and again for automation, and any design related, these scripts should be tested manually .

**Example -31st** night at the end of the year -The company offers sales for specific night, it should not be automated. Normally it should be passes into the manual testing.

**Whatever textbox** Anything design, Whether layer and padding related ,color ,space used between two text box margin, between two text box,-is correct or not- whatever text box anything design related-It has to be manual.

**Automation and Manual both**- We will pick automation script based on which we want to automate.

Since Scenario which can be fit for automation and manual both based on the environment and based on the testing database which I am using.

If we test in test environment .we can automate using sandbox. But we can’t do this in production level.

\*\*\*Anything cookie related stuff we can automate but normally it can’t automate because of high cost.

\*\*\*Sometimes if I want to handle the cookie, to pick CSS Attribute value and for validation then I can automate.

**Q.24 Describe the First Day? Describe a regular Day?**

**The First Day** -On the first day , I go timely in/to my office. First I introduced with QA manager./ lead . and then introduced to different team members and other office staff. Then I drink a coffee with QA Manager. And after sometimes they provide me a computer in my desk and support people to set up the UN and PWD. After it is done, Manager gave me a brief walk through of the documents (Which documents are where) and they gave some documents to read and follow up for the project. And they also provide some instructions what and why and how I have to do.

**Describe a regular Day-**

These could be different day in a sprint. First day and 2nd day is not going to be same. Because 1st day we have sprint planning meeting and might be we can have a grooming meeting and some other planning meeting also ,and we can have own QA discussion meeting.

**In a regular day we just working-**

Usually I go to office timely (by 9 am) and then I drink coffee, I Check my email to see any notification and information so that I can update by work and follow up everything based on that. I attend daily standup meeting at 10 o’clock for 10 to 15 min with the project team to discuss the task-What I did and What I have to today.

Then I open Jira software and Whatever tasks is assigned to me and whatever I got from email based on that I start working, -- Test case writing, Smoke testing, Regression testing, Retesting.

* Get more information from the dev/lead for testing the module if I don’t know much about the changes that they did. Then
* I go for lunch. After lunch continue my working as per assignment. If any bug found, raised that in defect tracking tool.
* Participate in scrum meeting (this happens usually during morning or evening depending upon project team and client availability)
* Update the tasks in agile management tool.
* There are various others activities I do where I am involved on daily, weekly and monthly basis depending upon the project requirement.

**Q 25) Describe your testing approach?**

First of all I look at the requirement documents(A**cceptance criteria** BRD,Wireframe,Design) to know the everything **and what are the functionalities in the application. Once I analyze the requirement documents after that I write test cases Whenever the test cases is complete . Once test cases are ready and the application /( the build) is ready then We start testing.** I do test manuals and automation. I always start with a manual first. **Before start testing ,we make sure the test environment, test data , defect tracking tools are in place. This the way to test an application.**

There are various types of **test** cases such as logical, functional, error, negative **test** cases, physical **test** cases, UI **test** cases, etc.  
..

**Q-26 Describe a Release Mechanism?**

**In my company DEVOPS teams, they are responsible for release mechanism. After completing the entire process or pipeline Release mechanism is happened. During the release time we are all stay in the same line. They make the server down and it takes only 10 minutes. At that time I do smoke testing and give them feedback. If it is okay then release become successful or If we found any bug, developers try to fix it immediately and if it is critical then we Rules back.**

**Q27)** **How many test cases in a Regression suite and how long it takes?**

I have 560 test cases for regression automation. 4 to 5 hours needs for automation project. Since we are automation engineer -we have Automation backlog where automation test cases--

**Like In** one sprint hour -10 user story completed. If we automate all 10,then all user story will go to automation backlog. If I automate only 5 out of 10 , then only 5 user story will go to backlog.Based on the priority from automation back log you pick the story and you do the automation. This was my Kanban project. There was no scrum team for that. Like Manager and QA lead assigned me the task for the automation.

Based on the priority you pick one by one,Whatever time you have left. Scrum project higher priority, I have another QA who is mainly responsible for manual test and I am responsible for automation tester but sometime he (another QA) helps me. ]

**Like- I** write 10 manual test cases. Other QA will write 7 test case and I write 3 test cases. Then whatever time left ,I do automation to take automation user story from automation backlog.

If I say we have 500 test cases in automation backlog ,so regression suite will reduce

**29. How to test from dark mean without docs?** First Of all meeting with BA, then meeting with DEV.

**Q30) When developer disagree a bug?**

Process to proof by the QA—Based on Acceptance Criteria which I have

-I have screen Short—Vedio--Steps to reproduce

If any Communication gap, any requirement change which I don’t know----If not there is a some reason -I have to escalate to the manager then manager will handle that. Or

I always log bug with enough details and proof describing why this is a bug. If the developer does not accept the defect, he will reject the issue with a description. I usually elevate the issue to my supervisor as I don't want to create any argument.

**Q32- How do you handle an unexpected work load?**

We have Team velocity. We always take max time .We have provided team velocity, we committed after understanding everything. We maintain agile board and we have burndown chart so normally workload is not possible.

But some time it might be occurred like sickness of employee, developer needs more time. In this case to handle unexpected work load we need to provide extra time and support. If it is not possible to overcome unexpected load then goes to the backlog. And based on priority it should be done in next sprint.

**Q33- How to prioritize your task**?

If Priority is set by team member which test cases we are going to do first. Then I have to maintain the team direction.

* But when some work assigned to me then I have to set the priority bases on importance task or based on the business requirement . then I will decide which is going to do first based on that priority.
* If automation task then it is set by the team which is going to automate first.
* If it is scrum project -based on work developer giving us then I will test it on that basis.

Because developer prioritized how to built it and which is going to do first

**34. Tell me some bug which u found in last project?**

During system testing, when the exe file was executed that will initiate the application failed to run. Similar issues were found during other phases also like integration testing when the login module that accepts the username and password which takes the user to the next module.. the system did not respond as expected. Raised an issue that data range is not being calculated properly for periods.

**Q35- Give me one scenario where you praised most from teammate.**

Relative scenario. In one feature use certain thing like API or any service and it has related more service and API .Directly testing in one module, but for testing the module problem might be occurred in other module which they are related. So we have many service releasable. This is edge case.

Like we have a product in commerce side and 20% off of the this product to buy on this product and this offer has been only the specific person or local offer /user bases offer not for all/ global. This offer is given through API.

1. **For register user an offer is declared not for guest user which I do cross check**
2. **Like The company is given an API/offer only for me. But I copied then give URL to you. Then you login and try to get the offer, so it is not expected. If developer coding is wrong then you will get it .**

That’s why it should be cross check properly. Normally maximum mistake is happened in service related product by the developer. This is an edge case scenario.

This types of mistake I saw and I did cross check which was provided for me but it has been shown for other product. Or that offer declared for particular user but due to coding mistake all user got this offer globally or

These offer was declared for particular user, but due to coding mistake another particular user used this offer.

Normally I test positive and negative scenario based on Acceptance criteria in the QA server, Actually I didn’t think like that it might be occurred, when I go at the mirror in preproduction stage, then I thought about cross check then I just copy this URL then I gave it to another QA and he login in his profile and he tried to use it and then it was working. Then we immediately fixed it. If we could not fixed it then it would be used globally which might be hampered for business economically.

**When I joined there was no proper documentation It is documentary thing.**

**Project deadline is reducing. It supposed to be in a four months but due to budget dead line has been reduced to three months. I did whole night**

For that reason I praised most from my teammate.

**Q36- tell me most critical bug you found in your career and how u troubleshot?**

Service types bugs

**38. What is validation and verification?**

**Verification -**It is a static practice of checking documents, design, code and program. It does not involve the code execution. It is human based checking documents and files. It uses methods like reviews, walkthroughs, inspections, and desk- checking etc. It finds bugs early in the development cycle. It comes before validation.

**Validation—**It is dynamic practice of validating and testing the actual product. It always involves executing the code. It is a computer based execution of program. It uses methods like Black Box Testing, [White Box Testing](https://www.guru99.com/white-box-testing.html), and gray box testing and non-functional testing.

or

**Verification**: Verification is a process to ensure that the software that is made, matches the original design. In other words, it checks whether the software is made according to the criteria and specification described in the requirement document. It is to check whether you built the product right as per design. It is a low level checking. (It is done in walk-through meetings generally). It checked whether it is made accordingly to the design..

**Validation**: Validation is a process to check whether the product design fits the client’s need. It checks whether you built the right thing. It checks whether it is designed properly.

**Q 39) What is entry and Exit criteria in test plan?**

It is a test plan component. Where to start and where to exist .

**Q 40 )What is AdHoc?**

It is a software testing which are performed without proper planning and documentations . Such kind of tests are executed only once unless we uncover the defects. It does not follow any test design techniques to create test cases. It does not follow any structured way of testing and it is Randomly done on any part of the application. The aim of this testing is to find defects by random checking. It can be achieved with the software testing technique called Error Guessing. Error guessing can be done by the people having enough experience on the system to “ guess” the most likely source of errors.