1. What is bug In Software Testing?

In Software testing, when the expected and actual behavior is not matching, an incident needs to be raised. An incident may be a Bug.

2. Differentiate Error, Defect, And Failure?

- Error/Bug: Due to developer's mistake, there is an error/bug residing in the code
- Defect: Once the bug is identified during testing, it is logged as a 'Defect' in the tracking system
- Failure: Literally a disappointment or a letdown. And no one wants to do business with a failure.

3. What Are The Different Types Of Status Of Defects?

The number of states that a defect goes through varies from project to project.

New – An open, and new, defect

Fixed – The defect was fixed and is ready for validation or to be closed

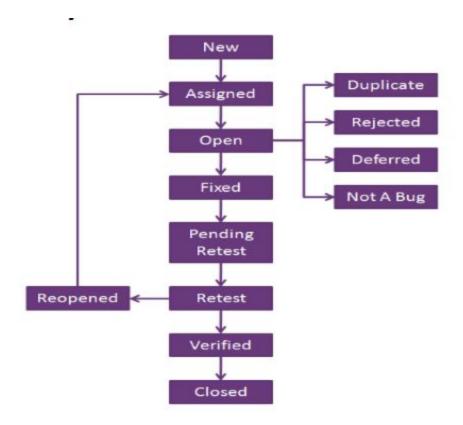
wontfix – The defect won't be fixed, usually this should be accompanied by an explanation.

Duplicate – An identical defect has been reported

worksforme – Can't reproduce the defect, usually this is a request for additional details, to help reproducing it

Invalid – A defect wrongly reported, usually this will be accompanied by a note to explain the reason for the status

4. Explain About Defect/Bug Life Cycle?



- 1. **New:** Tester provides new status while Reporting (for the first time)
- 2. **Assigned :** In this stage, a newly created defect is assigned to the development team for working on the defect.
- 3. **Open:** Developer / Dev lead /DTT opens the Defect
 - **Rejected:** Developer / Dev lead /DTT rejects if the defect is invalid or defect is duplicate.
 - **Deferred:** Developer provides this status due to time etc...
 - **Duplicate:** If the defect is as same as any other defect then the status of the defect is changed to "Duplicate".
 - **Not a bug :** If the defect does not have an impact on the functionality of the application then the status of the defect gets changed to "Not a Bug".
- 4. Fixed: Developer provides fixed status after fixing the defect
- **5. Pending Retest:** After fixing the defect, the developer assigns the defect to the tester for retesting the defect at their end and till the tester works in the retesting the defect, the state of the defect remains in "Pending Retest".
- **6. Restest:** At this point, the tester starts the task of working on the retesting of the defect to verify if the defect is fixed accurately by the developer as per the requirements or not.
 - **6.1 Re-open:** Tester Re-opens the defect with valid reasons and proofs

- **7. Verified :** If the tester got no issue in retesting then he feels that defect has been fixed accurately then the status of the defect assigned to "Verified".
- 8 .Closed: Tester provides closed status after performing confirmation Testing

5. A bug is identified by the tester it is assigned to whom?

A bug which is identified by the tester is assigned to the **developer team** which is approved by the test team lead.

6. Why is JIRA used? Explain step by step how an issue is created in JIRA.

JIRA: - It is an issue tracking product developed by Atlassian.

- It allows bug tracking and agile project management.
- It is used for bug tracking, issue tracking and project management.

Steps to create an issue in JIRA:

- 1. Open JIRA dashboard, after entering your login credentials.
- 2. Creating an issue (Issue id is generated on creating an issue.)
- 3. Click on Create tab on the dashboard.
- 4. A pop-up will open where we are required to fill in the fields with the appropriate details.
- 5. The fields which appear on the pop-up are as follows:

Project: Project name

Issue type: Type of the issue.

Project name: Name of your project

Summary: It can be written in the following format [environment] [platform] [module] [device] [summary]

- environment- QE, prod, UAT
- platform: ios web
- module: module of the platform
- device: devices on module like mobile,tablet,global
- summary: summary of the bug

Priority: It is decided by the client blocker, critical, minor, trivial

Project priority: Po-P4

Description: Defect of the issue.

It can be written in the following format:

- Defect: It has been observed that.
- Steps to reproduce: (reach to that bug)
- Expected result:

Components: Components of the application Assignee: Assign to the respective developer

Attachment: Proofs related to the bug

Steps to reproduce: steps that how can we reach to the bug.

Expected Output: Expected output Actual Outcome: actual output

Environment: In which environment we get the bug.

Add watchers: watcher can be anyone whom you want to show the bug report.

Other than developer, we can add watchers to see that issue.

Original estimate: time to do that task

Remaining estimate:

Sprint: Current active sprint

Platform:

6. Then click on create to create this issue, we can also select create another

7. What is Defect Density?

Defect Density is the number of defects confirmed in software/module during specific period of operation or development divided by the size of the software/module. It enables one to decide if a piece of software is ready to be released.

Defect Density = Defect count/size of release.

Size of release can be measured in terms of a line of code (LoC) or sprint period in which bug is detected.

8. What is the difference between defect density and defect triage?

Defect Density is the number of defects confirmed in software/module during specific period of operation or development divided by the size of the software/module. It enableJs one to decide if a piece of software is ready to be released.

Defect Triage is a process where each bug is prioritized based on its severity, frequency, risk, etc. Triage term is used in the software testing / QA to define the severity and priority of new defects. The goal of Bug Triage is to evaluate, prioritize and assign the resolution of the defects. The team needs to validate severities of the defect, make changes as per need, finalize resolution of the defects, and assign resources.



9. Explain Bug reporting and parameters of bug?

Bug Reporting is an important aspect of software testing. An effective bug report communicates well with the development team and avoids miscommunication. A good bug report should be clear and concise without missing key points.

A bug report is something that stores all information needed to document, report and fix problems occured in software or on a website.

Parameters of the bug are :

- **Defect ID:** Id provided by testing team for the bug reported.
- **Priority**: Business or development team can decide.
- **Severity**: Testing team can decide.
- Created by: Tester Name
- **Created Date :** Date of created defect.
- **Assigned to :** Developer name
- **Resolved Date :** Date decided by the developer
- **Resolved by:** Developer Name
- **Status:** New, IT Committed, Development, Ready for QA, In-testing, Testing Successfully completed.
- **Project Name:** Current Module or project name
- **Product Name:** Main Product Name
- Released Version : Eg 1.2.3Module : Module Name
- **Detected Build Version**: Build Version in which defect is found.

10. What is defect management? Explain the defect management process.

Defect Management is a systematic process to identify and fix bugs. A defect management cycle contains the following stages:

- 1. Discovery of Defect
- 2. Defect Categorization
- 3. Fixing of defect by Developers



- 4. Verification by Testers
- 5. Defect Closure
- 6. Defect Reports at the end of project

1. Discovery

In this Phase, the project teams have to discover as many defects as possible, before the end customer can discover it. A defect is said to be discovered and change to status Accepted when it is acknowledged and accepted by the developers.

2. Categorization

Defect categorization helps software developers to prioritize their tasks. That means that this kind of priority helps the developers in fixing those defects first that are highly crucial.

- **A.** Critical: The defect that needs to be fixed Immediately because it may cause great damage to the product.
- **B. High:** The defect impacts the product's main features.
- **C. Medium :** The defect causes minimal deviation from product requirement.
- **D. Low:** The defect has very minor affect product operation.

3. Fixing of defect by Developers

- Assignment: Assigned to a developer or other technician to fix, and changed the status to Responding.
- Schedule fixing: The developer side take charge in this phase. They will create a schedule to fix these defects, depend on the defect priority.
- Fix the defect: While the development team is fixing the defects, the Test Manager tracks the process of fixing defect compare to the above schedule.
- Report the resolution: Get a report of the resolution from developers when defects are fixed.

4. Verification by Testers

After the development team **fixed** and **reported** the defect, the testing team **verifies** that the defects are actually resolved.

For example, in the above scenario, when the development team reported that they already fixed 61 defects, your team would test again to verify these defects were actually fixed or not.

5. Defect Closure

Once a defect has been resolved and verified, the defect is changed status as **closed**. If not, you have send a notice to the development to check the defect again.

6. Defect Reports at the end of project

The management board has right to know the defect status. They must understand the defect management process to support you in this project. Therefore, you must report them the current defect situation to get feedback from them.

11. What is Test estimation? Explain Work Breakdown Structure test estimation technique with an example?

Test Estimation is a management activity which approximates how long a task would take to complete. Estimation effort for the test is one of the major and important tasks in Test Management. List of software Test Estimation Techniques like Work BreakDown Structure, 3-point software Testing Estimation Technique.

Sub module 1.2

Work BreakDown Structure (WBS)

Breaking down the test project into small pieces.

The WBS is developed to establish a common understanding of project scope. It is a hierarchical description of the work that must be done to complete the deliverables of a project. Each descending level in the WBS represents an increasingly detailed description of the project deliverables.

For constructing a work breakdown structure, each node is recursively decomposed into smaller sub-activities, until at the leaf level, the activities becomes undividable and independent. It follows Top-Down approach.

- 1. Divide the whole project task into subtasks.
- 2. Use the work Breakdown Structure to break out the project into smaller tasks.

3. After that, you can break out each task to the subtask. The purpose of this activity is create task as detailed as possible.

12. What is test reports? What parameters are used in test reports?

Test summary report/ Quality reports is a document which contains summary of test activities and final test results.

Test Reports is a document which contains- A **Summary** of test activities and final test results. An **Assessment** of how well the testing is performed.

Based on the Test Reports, the stakeholders can evaluate the **quality** of the tested product Make a decision on the software release.

13. What are the test management tools?

Test management tools are used to store information on how testing is to be done, plan testing activities and report the status of quality assurance activities. The tools have different approaches to testing and thus have different sets of features.

Example- PractiTest, Test Rail, Testpad, Qase, Klaros, Jira, Test Link, Bugjira etc.

14. What is a test link? How do you write test cases in TestLink?

Test-link is most widely used web based open source test management tool. It synchronizes both requirements specification and test specification together. It supports both automated and manual execution of Test cases. It supports test reports in various formats like Excel, MS word, and HTML formats.

Steps used to write **test cases in TestLink are**:

Step 1: Click on the test suite folder on the left side of the panel under a folder tree structure

Step 2: Click on the setting icon in the right side panel. List of test case operations will be displayed on the right side panel

Step 3: New window will open, to create test cases click on create a button in test-case operations

Step 4: Enter the details in the test case specification page.

Step 5: After entering the details, click on "create" button to save the details. The test-case for Guru99 is created successfully.

Step 6: Click on test-case from the folder, as shown above, it will open a window. Click on "create steps" button in a test case. It will open a test case step editor

Step 7) It will open another window on the same page, in that window you have to enter the following details

- 1. Enter the step-action for your test case
- 2. Enter the details about the step action
- 3. Click save it and add another step action OR click save and exit tab if there is no more test step to add

Step 8) Once you save and exit the test step

15. Explain steps on how to upload a Test case sheet on TestLink?

Step 1: Select the Test suite folder inside which you want to import the test case

Step 2: Click on the setting icon on the right-hand-side of the panel, it will display all the operations that can be executed on the test suite/test case

Step 3: Click on the import button in the test case operations list

Step 4: Browse and attach the XML test case file that you have exported from test link and click on upload button.

- Use the browse option to attach the XML test case file that you have exported from testlink
- Click on upload file

When you upload a file, it will open window stating import test cases

Step 5: Test case will be uploaded and displayed on the right-hand side of the panel

16. What is severity and priority in bug/defect?

Severity defines the extent to which a particular defect could create an impact on the application or system. Severity is a parameter to denote the implication of defect on the system – how critical defect is and what is the impact of the defect on the whole system's functionality? The severity is a parameter set by the tester while he opens a defect and is mainly in control of the tester.

Priority, as the name suggests, is about prioritizing a defect based on business needs and severity of the defect. Priority signifies the importance or urgency of fixing a defect. While opening a defect, the tester generally assigns the priority initially as he views the product from the end-user perspective.



- 17. While placing an order for clothing website, in order confirmation page there is a logo error. It is a?
 - 1. High priority, high severity
 - 2. Low severity low priority
 - 3. Low severity, high priority (of low severity as it not going to affect the functionality of the website but can be of high priority as you don't want any further shipment to proceed with the wrong logo.)
 - 4. High severity low priority

Ans. 3. Low severity, high priority (of low severity as it not going to affect the functionality of the website but can be of high priority as you don't want any further shipment to proceed with the wrong logo.)

18. Website home page failed to load.

- 1. High priority, high severity (Major functionality failure like log in is not working, crashes in the basic workflow of the software are the best example of High Priority and High Severity)
- 2. Low severity low priority
- 3. Low severity, high priority
- 4. High severity low priority

Ans. 1. High priority, high severity (Major functionality failure like log in is not working, crashes in the basic workflow of the software are the best example of High Priority and High Severity)

- 19. The application works perfectly for 50k sessions but beings to crash after a higher number of sessions.
 - 1. Low severity low priority
 - 2. High priority, high severity
 - 3. Low severity, high priority
 - 4. High severity low priority (This problem needs to be fixed but not immediately.)
- **Ans.** 4. High severity low priority (This problem needs to be fixed but not immediately.)
 - 20. An application (web) is made up of 20 pages. On one of the pages, there is a sentence with a grammatical error.
 - Low severity low priority This bug may go unnoticed to the eyes of many and won't affect any functionality or the credibility of the company.
 - 2. High priority, high severity
 - 3. Low severity, high priority
 - 4. High severity low priority

Ans. 1. Low severity low priority - This bug may go unnoticed to the eyes of many and won't affect any functionality or the credibility of the company.

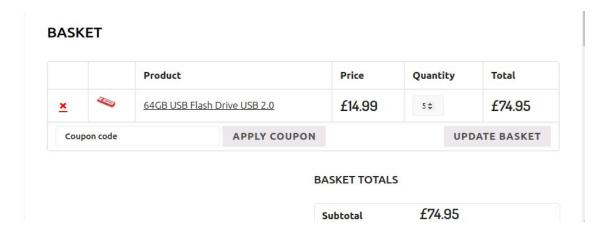
21. Find bugs and report the same on JIRA for below-mentioned modules in the website: http://www.rushplace.com/: Testwebsite1

1. My Account

- 1: In my account, User can only LOGIN there is no SignUP option.
- 2: No new user can get into it.

2. Add to basket

- 1. We cannot increase the quantity directly from the home page.
- 2. Quantity shown in the icon is not visible properly. It is showing price in superior.
- 3. When we add any television. It is not able to add that television in the cart.
- 4. Calculate shipping tab is not updating address.
- 5. In shipment if we add Delhi as city and Pincode is of Mumbai it is not showing any error.
- 6. It is showing basket at the bottom of the calculated bill which is not appropriate way.
- 7. There is no way to see the shipment address.
- 8. It does not ask for LOGIN for placing an order.
- 9. There is No shipment method added on the site.
- 10. There is NO proper Item description is available.
- 11. When we increase quantity when we reach 2 digit number it is not showing the quantity number correctly.
- 12. When we increase quantity basket sometimes price get updated sometimes it does not.



BASKET



- 13. When we increase the quantity and refresh the page then it will show the quantity increased but price showed only for 1 product (in Mozilla Firefox).
- 14. While In chrome when we increase the quantity and refresh the page quantity and price shown only for 1 product.

3. Search

- 1. Search Button should be at the top of the site.
- 2. If you are on Home page then only you can search the item else you are not allowed to search from any other place.
- 3. After 1-2 time search you are not able to search any item from the search option.
- 4. When you search for speakers It will not show you the image of the results.
- 5. When we search Video it is showing phone and camera.
- 6. For Researching you need to get back to home page then only you can search.
- 7. Search button doesn't work properly result will be shown only when you press Enter.

4. Homepage

- 1. Bar which have all the tabs in it is taking extra padding from all side.
- 2. Search option should be at the top of the tab bar.
- 3. Products are not properly aligned.
- 4. Basket should show only Item count not prize.
- 5. Basket should show notification.

- 6. "Computer Mice" term is wrong in categories.
- 7. Categories Tab is taking unnecessary space.
- 8. Copyright should come at the footer of the page only and should consume full length width of the page.
- 9. Some images of the items are not available.
- 10. We are not able to add TV to the basket.
- 11. Sorting from price:HIGH TO LOW did not work.
- 12. No New user can show his account because there is No signup Option.
- 13. Basket detail should not be seen on the Home page.
- 14. Dimension of the item picture are not same.
- 15. Few Item Pictures are not displayed.



22. Find bugs and report the same on JIRA for below-mentioned modules in the website: http://newtours.demoaut.com/mercurywelcome.php : Testwebsite2

1. Register Here

- 1. If you go to register and keep all the blocks blank and press submit button then still it will show that you are successfully registered.
- 2. If you type same 12 in all the fields on the register form and submit it then it will also get accepted and registered.
- 3. If you type only alphabet in email it is accepted there is no @ and .com verification is applied.
- 4. If you type password and retype password have different values then it also get accepted.
- 5. In address if we select Country as UK and give address of India it will get accepted which is not acceptable.
- 6. There is No mandatory field on the register page.
- 7. If we pass a character in the phone number it will get accepted without showing any error message.

- 8. There is no Validation process applied in any field of the register form.
- 9. Input field are not of same length and not aligned properly.
- 10. After successfully registering user is not able to Sign IN with the same username and password and No error message is displayed.

| SIGN-ON | |
|---------------------------|---|
| member-only areas of this | ry Tours! Enter your user information to access the site. If you don't have a log-in, please fill out the |
| registration form. | |
| User Name: | Prabhat |

2. Top header navigation options

- i. All tab should be at the left side of the navigation bar.
- ii. Contact and Support tab is IN under maintenance.
- iii. Home tab should be at the top not at the side bar.
- iv. Register tab has no limitation it is taking blank input boxes as valid.

3. UI bugs for the complete website.

- i. The page is not covering the whole web browser.
- ii. Website seems to be congested.
- iii. Content is not properly aligned like feature destination and feature flight must be on the same line.
- iv. In specials, there is no further clickable option to know more about the special offers.
- v. Icon for the Destinations, vacations, Register is not appropriate.
- vi. Website is not at all attractive. Colour combination is not attractive.
- vii. In Tour tip Section, Tip should be #1 not #93.
- viii. First link provided in the Links part is not working.
- ix. HTML version should not visible on the home page.
- x. Savings Rent a car which is a picture is not clickable link.
- xi. "Vacations" link on the right side is not working.
- xii. Flights and Home page have same content which is not at all appropriate.
- xiii. One cool summer box and main Home page box is not properly aligned in one line.
- xiv. Buttons or links on the header navigation is getting out of the box.

23. Write Test Cases for Amazon login, Sign up and Forgot password on TestLink.

https://docs.google.com/spreadsheets/d/1pWsrn5PL_GqdUHS9CqPcRxXiujl YMs-INn1hWOAJRjw/edit?usp=sharing

24. Write Test Cases for placing an order in Myntra on TestLink.

https://docs.google.com/spreadsheets/d/1pWsrn5PL_GqdUHS9CqPcRxXiujl YMs-INn1hWOAJRjw/edit?usp=sharing

25. Write Test Cases for Search functionality on TestLink.

https://docs.google.com/spreadsheets/d/1pWsrn5PL_GqdUHS9CqPcRxXiujl YMs-INn1hWOAJRjw/edit?usp=sharing