Why testing is required

**Testing is required** for an effective performance of software application or product. It's important to ensure that the application should not result into any failures because it can be very expensive in the future or in the later stages of the development. It's **required** to stay in the business.

What types of application we test

Mobile app

Web based app

Desktop app

what is SDLC and different phases in SDLC?

**SDLC** is a **process** followed for a software project, within a software organization. It consists of a detailed plan describing how to develop, maintain, replace and alter or enhance specific software. The life cycle defines a methodology for improving the quality of software and the overall development **process**

1. Requirement gathering and analysis
2. Design
3. Implementation or coding
4. Testing
5. Deployment
6. Maintenance

what is waterfall method

The **waterfall model** is a sequential (non-iterative) design process, used in software development processes, in which progress is seen as flowing steadily downwards (like a **waterfall**) through the phases of conception, initiation, analysis, design, construction, testing, production/implementation and maintenance.

what is agile method

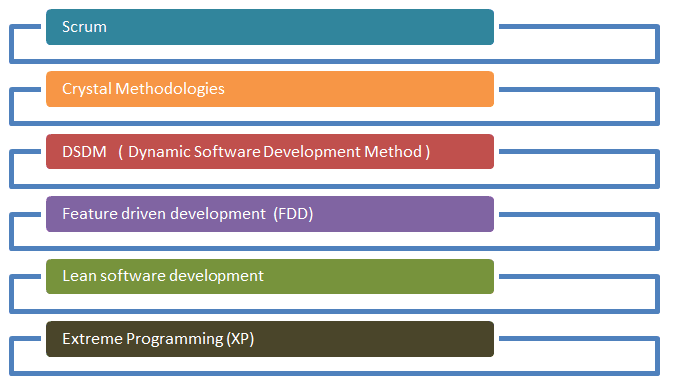
**AGILE**. **Agile software** development refers to a group of **software** development **methodologies** based on iterative development, where requirements and solutions evolve through collaboration between self-organizing cross-functional teams

what is scrum methodology

Scrum is an **iterative** and incremental **agile** software development framework for managing product development.

what is the process in agile model

**Agile** SDLC **model** is a combination of iterative and incremental **process models** with focus on **process**adaptability and customer satisfaction by rapid delivery of working software product. **Agile** Methods break the product into small incremental builds. These builds are provided in iterations.

[](http://cdn.guru99.com/images/11-2014/agile_Processesv1_2.png)

what is daily standup meeting and what we discuss

A **daily stand-up meeting** is a short organizational **meeting** that is held each day. The **meeting**, generally limited to between five and fifteen minutes long, is sometimes referred to as a **stand-up**, a morning roll-call or a **daily** scrum.

what is product back log items

**Product Backlog Item**. In Scrum, a **product backlog item**("PBI", "**backlog item**", or "**item**") is a unit of work small enough to be completed by a team in one Sprint iteration.**Backlog items** are decomposed into one or more tasks

what is user story/feature/sprint back log items and tasks in user story

A **user story** is a tool used in Agile software development to capture a description of a software feature from an end-**user** perspective. The **user story** describes the type of **user**, what they want and why. A **user story** helps to create a simplified description of a requirement.

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

**User stories** are generally added in the product backlog, but in some cases they can even be added to sprint backlog based on the judgement of scrum master." Sprint backlog cannot function without **tasks**! Usually a **task** falls under a **user story**.

what is sprint planing meeting

**Sprint planning** is a collaborative effort involving a ScrumMaster, who facilitates the **meeting**, a Product Owner, who clarifies the details of the product backlog items and their respective acceptance criteria, and the Entire Agile Team, who define the work and effort necessary to meet their **sprint** commitment.

what is sprint review meeting

In Scrum, each **sprint** is required to deliver a potentially shippable product increment. This means that at the end of each **sprint**, the team has produced a coded, tested and usable piece of software. So at the end of each **sprint**, a **sprint review meeting**is held.

what is sprint retrospective

The **sprint retrospective** is a meeting facilitated by the ScrumMaster at which the team discusses the just-concluded**sprint** and determines what could be changed that might make the next **sprint** more productive

what is sprint grooming

Product backlog refinement—sometimes called product backlog **grooming** in reference to keeping the backlog clean and orderly—is a meeting that is held near the end of one **sprint** to ensure the backlog is ready for the next **sprint**.

what is burndown chart and velocity

Its purpose is to enable that the project is on the track to deliver the expected solution within the desired schedule. Simple **Burndown Chart**. The rate of progress of a Scrum Team is called "**velocity**". It expresses the amount of e.g. story points completed per iteration.

what is user acceptance criteria test cases

Firstly, the **criteria** by which the software is considered to be “working” needs to be assembled. These are likely to be collated from the system requirements, and **user**stories. Next, a set of **UAT test cases** must be created. Centric defines a **UAT test case** as: ... Each **case** covers a specific usage scenario of the software.

what is v model?

The **V** - **model** is SDLC **model** where execution of processes happens in a sequential manner in **V**-shape. It is also known as Verification and Validation**model**. **V** - **Model** is an extension of the waterfall**model** and is based on association of a testing phase for each corresponding development stage.

what is STLC?

**Software Testing Life Cycle** (**STLC**) is the testing process which is executed in systematic and planned manner. In **STLC** process, different activities are carried out to improve the quality of the product. ... Test Execution

what is defect?

A programmer while designing and building the **software** can make mistakes or error. These mistakes or errors mean that there are flaws in the **software**. These are called **defects**. When actual result deviates from the expected result while **testing** a**software** application or product then it results into a **defect**.

how to arise a defect and what we specify while logging defect?

Click on the drop down icon and select a User. You may want to link to an associated **Defect**. Click on the drop down icon on the Associated **Defect** field and select a**defect** to associate with. Switch to 'OS / Browser' tab to select the Web Browser(s) / Operating System(s) against which this **defect** is being **raised**.

Defect logging, a process of finding defects in the application under test or product by testing or recording feedback from customers and making new versions of the product that fix the defects or the clients feedback.

**defect lifecycle**

**Defect life cycle**, also known as **Bug Life cycle** is the journey of a **defect cycle**, which a **defect** goes through during its lifetime. It varies from organization to organization and also from project to project as it is governed by the software testing process and also depends upon the tools used

What is unit testing?

**Unit testing** is a software development process in which the smallest testable parts of an application, called units, are individually and independently scrutinized for proper operation. **Unit testing** can be done manually but is often automated.

when do we use regression testing?

**Regression testing** is the process of **testing** changes to computer programs to make sure that the older programming still works with the new changes. **Regression testing** is a normal part of the program development process and, in larger companies, is **done** by code **testing** specialists.

What is integration testing?

**Integration testing** (sometimes called **integration** and **testing**, abbreviated I&T) is the phase in software **testing** in which individual software modules are combined and **tested** as a group. It occurs after unit **testing** and before validation **testing**.

when do we use integration testing?

Before going to development we do integration testing

when do we use smoke testing and sanity testing?

Smoke Testing is performed to ascertain that the critical functionalities of the program is working fine

Sanity Testing is done to check the new functionality / bugs have been fixed

what is UAT?

**User acceptance testing** (**UAT**) is the last phase of the software testing process. During **UAT**, actual software users test the software to make sure it can handle required tasks in real-world scenarios, according to specifications.

what is alpha and beta testing?

**Alpha testing** is a type of acceptance **testing**; performed to identify all possible issues/bugs before releasing the product to everyday users or public. ... **Alpha testing** is carried out in a lab environment and usually the testers are internal employees of the organization

A test for a [computer](http://www.webopedia.com/TERM/C/computer.html) product prior to commercial release. Beta testing is the last stage of testing, and normally can involve sending the product to *beta test sites* outside the company for real-world exposure or offering the product for a free trial download over the Internet. Beta testing is often preceded by a round of testing called [alpha testing](http://www.webopedia.com/TERM/A/alpha_version.html).

when do we use white box testing and block box testing?

Black Box Testing is a software testing method in which the internal structure/ design/ implementation of the item being tested is NOT known to the tester

White Box Testing is a software testing method in which the internal structure/ design/ implementation of the item being tested is known to the tester.

what we will do if we don't have a time to test all stories/ execute test cases?

Carry forward to next sprint

what we will do if come across any critical severity issue before release day?

You have to try to fix it or extend

when do we use automation testing?

Test engineers strive to catch them before the product is released but they always creep in and they often reappear, even with the best manual **testing processes**. Test Automation software is the best way to increase the effectiveness, efficiency and coverage of your software testing.

what tester will do in each phase of SDLC?

In First Phase SRS ( Software Requirement Specification  
)document is Created and Validated.  
  
In Second Phase Design / Algo are Analyze and design  
document are craeted by design team which is tested by Tester.  
  
In Third Phase Coding, which is done Software Developer are  
checked taht all path are covered are not, coding should be  
done in such a way that new changes are made easily, and  
application should be user friendly.  
  
in Fourth Phase Actual testing ( Unit , Integration,  
System,UAT) is done.  
  
In Fifth Phase Check that Application is working fine in  
Different OS environment  
  
In Sixth Phase Configuration management is done..

difference between load and performance testing?

Performance testing is the general name for tests that check how the system behaves and performs. Performance testing examines responsiveness, stability, scalability, reliability, speed and resource usage of your software and infrastructure.

When you want to check your website performance and app performance, as well as servers, databases, networks, etc. If you work with the waterfall methodology, then at least each time you release a version. If you’re shifting left and going agile, you should test continuously.

Load testing is testing that checks how systems function under a heavy number of concurrent virtual users performing transactions over a certain period of time. Or in other words, how systems handle heavy load volumes.

When you want to determine how many users your system can handle. You can determine different user scenarios that let you focus on different parts of your system, like the checkout webpage on your website or app for web load testing. You can also determine how the load behaves, like the geo-location users come from or how the load builds and sustains in the system. Basically, load testing is something you should do all the time, to ensure your system is always on point. That’s why it should be integrated into your Continuous Integration cycles, with tools like [Jenkins](https://www.blazemeter.com/jenkins?utm_source=Blog&utm_medium=BM_Blog&utm_campaign=performance-testing-load-testing-stress-testing-spike-testing-soak-testing) and [Taurus](http://gettaurus.org/?utm_source=Blog&utm_medium=BM_Blog&utm_campaign=performance-testing-load-testing-stress-testing-spike-testing-soak-testing).

different types of non-functional testing types?

* Load/Performance testing.
* Compatibility testing.
* Localization testing.
* Security testing.
* Reliability testing.
* Stress testing.
* Usability testing.
* Compliance testing.

what is test case?

**test case** is a set of conditions or variables under which a tester will determine whether a system under **test** satisfies requirements or works correctly. The process of developing **test cases** can also help find problems in the requirements or design of an application.

what is test planning/test strategy document

A **test plan** is usually prepared by or with significant input from **test** engineers. ... The**Test Strategy document** describes the scope, approach, resources and schedule for the **testing** activities of the project

what is Exit and Entry criteria :

Entry criterion is used to determine when a given test activity should start. It also includes the beginning of a level of testing, when test design or when test execution is ready to start.

Exit criterion is used to determine whether a given test activity has been completed or NOT. Exit criteria can be defined for all of the test activities right from planning, specification and execution.

Exit criterion should be part of test plan and decided in the planning stage.

what is TDD and BDD (cucumber framework)

**Test-driven development** (**TDD**) is a software development process that relies on the repetition of a very short development cycle: requirements are turned into very specific test cases, then the software is improved to pass the new tests, only.

**Behavior-driven development** (**BDD**) is a software development methodology in which an application is specified and designed by describing how its behavior should appear to an outside observer.

how do we write test cases in BDD format

**As a** store owner

**In order to** keep track of stock

**I want to** add items back to stock when they're returned.

**Scenario 1:** Refunded items should be returned to stock

**Given** that a customer previously bought a black sweater from me

**And** I have three black sweaters in stock.

**When** he returns the black sweater for a refund

**Then** I should have four black sweaters in stock.

what is priority and severity in defect?

**Severity** of a **defect** is related to how severe a bug is. Usually the **severity** is defined in terms of financial loss, damage to environment, company's reputation and loss of life. **Priority** of a **defect** is related to how quickly a bug should be fixed and deployed to live servers.

how to estimate test cases?

To **estimate** the number of potential defects is more involved. Intuitively the number of maximum potential defects is equal to the number of acceptance **test cases**which is 1.2 x Function Points. To reduce the number of defects delivered with a software project an organization can engage in a variety of activities.

what are test design techniques

By **design** we mean to create a plan for how to implement an idea and **technique** is a method or way for performing a task. So, **Test Design** is creating a set of inputs for given software that will provide a set of expected outputs. ... Broadly speaking there are two main categories of **Test Design Techniques**

how we learn the functionality of system?

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what are the tools to manage defects/stories?

* Bugzilla: ...
* Lean Testing. ...
* JIRA: ...
* Mantis: ...
* Trac: ...
* Redmine:

what is requirement traceability matrix?

The **Requirements Traceability Matrix** (RTM) is a document that links **requirements**throughout the validation process. The purpose of the **Requirements Traceability Matrix** is to ensure that all **requirements** defined for a system are tested in the test protocols.