**AGILE**

Agile is a iterative or incremeantal approach where in requirement keeps on changing, as a company we will flexible enough to take up the changes.

1. Develop the changes
2. Test the Changes
3. Quality Software to the customer within shot span of time

* In agile there will be good communication b/w customer,BA,Developer and Test engineeres.
* We can directly intercat with the customers and we can take the feedback and develop, test the changes given by the customer.
* Quality software to the customer we can delivery within shot span of time.

**What is the Goal of Agile?**

“The main Goal of agile is customer satisfaction through quick delivery of working piece of software within short span of time”.

**Advantage of AGILE:**

1. Customer can change the requirement at any point of development stages.
2. Their will be good communication between customer, BA, developers, Test Eng.
3. Our highest priority is customer satisfaction through delivery working piece of a sftware.
4. Releases should be very fast.
5. We convey the information viva face to face confersation.
6. Developers and Test Eng. Will be having lots of meetings to inform fine tunning of the process.

**What is Agile Testing?**

Testing the Software by following the principles of agile methodologies is called as agile testing.

**Drawbacks/Disadvantage of AGILE METHODOLOGIES:**

1. Experienced developers and Test Eng. Are required in the project.
2. If customer are not clear about the requirement we might mess up the complete project.
3. Documentation scope is vey less
4. Effort estimation of every individual to track is diffucult.

**TYPES OF AGILE METHODOLOGY**

1. **Scrum process**
2. **Extreme programming**
3. **Feature Driven Development**
4. **Crystal Clear**
5. **Kanban(do or die process) :-** very very fast process
6. **Dynamic Software development mode**
7. **Adopative software development model**
8. **Scrum Process:**

**Terminologies:**

1. **Release**: Number of sprints/Combination of sprint.
2. **Sprint:** It is the actual time taken by the developrs to develop and time taken to Test one or more stories.
3. **Stories/Story cards:** its have features and modules.

**Ex:** Login, about, contact us secton on the web page.

1. **Story points:** It is a rough estimation given by each and every individual developers and Test Eng. To develop and test each and every individuals stories.

**Story point of Developers:**

1. Time taken to understand requirement
2. Design(HLD,LLD)
3. Coding
4. Code review
5. White box testing
6. Fixing the defects.

**Story Point of Test Engineers**

1. Time taken to understand Requirement
2. Time taken to write scenarios
3. Time taken to write
4. Review the trestCases
5. Track the defect

**Epic:** Complete set of requirement is called epic.

**One epic can consist of multiple feature**

* Scrum master or BA will create an epic in the project management tool like **JIRA**

**SCRUM MASTER** is a person who is responsible for delivery the quality software to customer within short span of time.

Scrum master will track each and every activity.

* **Sprint Planning**: It is the meeting conducted by scum master on the first day of every sprint.

**Scrum Master, Developers, Test Eng, and BA all will part of this meeting**.

**Scrum Meeting/StandUp Meeting**: It is a meeting which is conducted my scrum master on daily basis.

This meeting will happen 15min daily.

**Scrum master,BA,Developers,Test Eng. Sometime customers all will part of this meeting int this meeting will discuss:**

1. **What you did yesterday.**
2. **What will you do today**
3. **Are there any obstacles.**

**Sprint Retrospective Meeting:**

It is a meeting conducted by the scrum master on the last day of every sprint.

**ScrumMaster, Developers, Test Engineers, BA and PM**

In this meeting we will discuss below points

1. What went well
2. What did not go well
3. What are action plans

**Bug Triag Meeting**

**“**It is a meeting conducted by the Test Eng., or BA at the end of every sprint or end of every release”

**ScrumMaster,Developers,Test Eng, BA, and PM**

1. In this meeting we will get the list of all open and pending defects which are not fixed as of current release or previous release and we will priopertize all the open defects and we will fix one after another as per custoer business flow.

* *Which defect should be fixed in current release*
* *Which defects can be moved to next upcoming release.*

**Chickens** -> Set of people they are not committed to project they get the business to the company and get the work done by the other team members.

**Pigs**: Sets of people who are committed to project and complete the work within given period time.

**Defects:** Application which is not working according to customer requirement specification.

Types of Defects:

1. Blocker/ Showstopper: The user is completely blocked. Not able to continue. **Example 404 error**.
2. Critical: Application is working but not as per accepted.
3. Major/minor defect: Defect in the application but it does not affect in customer application.

**High => Blocker Defect**

**Medium => Major Defect**

**Low => Minor Defect**

***In Agile topic:->***

**PRODUCT BACKLOG GROOMING/SPRINT BACKLOG MEETING**

It is a meeting conducted by scrum master, BA at the end of every sprint.

Scrum master,BA,developers and Test engineeres

1. In this meeting we will get to know all the pending stories or features.
2. This are not devveloped as the part of current release and previous release, prioritize the stories from business point of view.
3. How many to be fixed as the part of current release and how many to be fixed as the part of upcoming release.

**TESTCASE Design Techniques / Black Box Design Techniques / Test Design Techniquess**

“It is the Technique which is applied while writing test cases inorder to improve testcase coverage”

**DRAWBACKS:**

1. **We will miss some scenerioes.**
2. **Lots of defects**
3. **No test case coverage**

**Types of TestCase design Techniques**

1. **Error Guessing**
2. **Equivalence partioning**
3. **Boundary value analysis**
4. **Decision teble technique**
5. **State transitition techniques**
6. **Error Guessing:** Test Eng. Will guess and drive more scenarios error guessing depends on analytical thinking of every individual Test Eng will enter only negative values or invalid values and try to guess the error.

* **Only negative or invalid error**
* **Amount:**

1. Twenty rupees.
2. @#$ **Not accept**
3. Blank **Not accept**
4. Space(\_) **Not accept**
5. **Equivalence Partition:**

**1. Pressman rule**

**2. Practice Method**

**a. Pressman Rule:** If the input is range of values then design the testcase for 1 valid and 2 invalid values 100-5000

**Amount:**

Valid value –> 500

Invalid value -> 99,6000

* If the input is boolean then design the testcases for both rule or false value.

**b. Practice Method: “**Equally divide the values and test one valid and two invalid values.**”**

**Ex: Range is 100- 500**

**Then valid between that values only.**

1. **Boundary Value Analysis(BVA)**

If the input is in the range of values between A to B, then design the testcases for

A, A+1 and A-1

B. B+1 and B-1

Ex: 100, 100+1, 100+3…..so on

100,101, 99

500,501,499

1. **State Transition Techniques:** State transition testing is a black box software testing technique used to verify that a system or application behaves correctly when transitioning between different states or not.

**Ex: ATM pin: we type the pin if wrong 3 times it gets blocked.**

1. **Decision Table Techinique:** used to analyze and represent combinations of input conditions and their corresponding actions or outputs in a tabular format