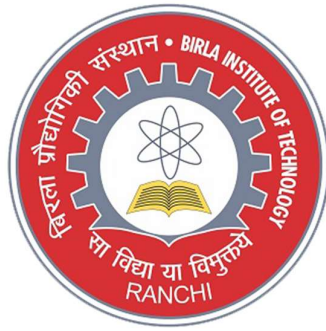


Birla Institute of Technology, Mesra,  
Patna Campus



SE-Assignment

Name-Shubham Sourabh

Roll-Btech/15044/18

Sec-CSE 6<sup>th</sup>

## **#Assignment-3**

### **1.What types of problems may arise if a software project is developed on ad hoc basis?**

**Ans:-**

1. Since ad-hoc testing is done without any planning and in unstructured way so recreation of bugs sometime becomes a big trouble.
2. The test scenarios executed during the ad-hoc testing are not documented so the tester has to keep all the scenarios in their mind which he/she might not be able to recollect in future.
3. Ad-hoc testing is very much dependent on the skilled tester who has thorough knowledge of the product it cannot be done by any new joiner of the team.

These problem may arise if a software project is developed on ad hoc basis.

### **2.As you move outward along the spiral process flow, what can you say about the softwarethat is being developed or maintained?**

**Ans:-**

As work moves outward on the spiral, the product moves toward a more complete state and the level of abstraction at which work is performed is reduced (i.e., implementation specific work accelerates as we move further from the origin).

**3. At the end of their study program, students in a software engineering course are typically expected to complete a major project. Explain how the agile methodology may be very useful for the students to use in this case ?**

**Ans:-**

The agile methodology is team centered so it would help them interact with each other. It also encourages releases in phases so that the team can show the professor updates as they work.

Agile methodologies teach to do small steps and demonstrate success at each step, have a clear definition of done, write automated test cases, and prioritize the most important things. All of those principles are very helpful when a single person is doing a large project.

**4. Make your own customer story (being a customer) for software requirements in Extreme Programming and then break it into a number of tasks.**

**Ans:-**

User requirements are expressed as scenarios or user stories. These are written on cards and the development team break them down into implementation tasks. These tasks are the basis of schedule and cost estimates

As an agile methodology, Extreme programming was designed to help solve the business challenges and problems that arise during a

software building process. The final product will have to be approved by the customer, so instead of waiting until then, Extreme programming incorporates the customer into the entire process.

The Customer's explicit responsibilities are to drive the project, providing project requirements (user stories) and quality control (acceptance testing).

### **5.Explain the idea of Test-First development and highlight possible problems that may arise as a result of Test-First development.**

#### **Ans:-**

The simple concept is to write and correct the failed tests before writing new code (before development). This helps to avoid duplication of code as we write a small amount of code at a time in order to pass tests. (Tests are nothing but requirement conditions that we need to test to fulfill them).

Test-Driven development is a process of developing and running automated test before actual development of the application.

#### The possible problems of test-first development:-

1. Programmers may take short-cuts when developing tests so that the system tests are incomplete.
2. Some tests can be difficult to write incrementally.
3. It is difficult to estimate the completeness of a test set.

**6.To reduce costs and the environmental impact of commuting, your company decides to close a number of offices and to provide support for staff to work from home. However, the senior management who introduce the policy are unaware that software is developed using Scrum. Explain how you could use technology to support Scrum in a distributed environment to make this possible. What problems are you likely to encounter using this approach?**

**Ans:-**

we can host group video meetings using software like Skype to hold the daily stand up meetings. The drawback is that it is harder to manage multiple people wanting to speak over a video conference than it is in person.

The difficulties that this new policy might cause are : There would definitely be communication gap among the team members . There are numerous benefits which are obtained through agile methods. But because of this arrangement it would be nullified. Error detection and evaluation benefits through pair programming would be completely lost. Since there are sudden changes in the teams, the project development would be slowed down.