Case Study(7)

Task(1): What is it?.

-A method for centrally storing files

-Keeping a record of changes

-Who did what, when in the system

-Covering yourself when things inevitably go wrong

Version Control: Why ?

Individual

-Back-up methodology

-Increments-know which version is live

-Point in time marking aka.Tagging

-Branching-release version maintained and main development can Continue

-Change history-when features were added or emended

Team

-Allow multiple developers to work on same code base

-Merge changes across same files-handle collisions

-Answer who did what-blame/praise

Version Control:Type

- CVS(Concurrent Version System)
- SVN(Subversion)

- Git
- Bazaar
- Mercurial
- Monotone
- VSS(Visual Source Safe)

The various types of the version control systems are:

1.Local Version Control System

2.Centralized Version Control System

3.Distributed Version Control System

Task(2): Version control is a system that records changes to a file or set of files over time so that you can recall specific version later. A version control system (also known as a Revision Control System) is a repository of files, often the files for the source code of computer programs, with monitored access. Every change made to the source is tracked, along with who made the change, why they made it ,and references to problems fixed or enhancements introduced , by the change.

Version control is important to keep track of changes and keep every team member working off the latest version .You should use version control software for all code,files,and assets that multiple team members will collaboration. It needs to do more than just manage and track files.

Task(3): Get (/get/) is a version –control system for tracking changes in computer files and coordinating work on those files among multiple people. The most basic and important function of get is to allow teams to add (and merge)code at the same time to the same project. There are also many other things Get does really well: it allows us to revert changes, create new branches for adding new features , resolve merge conflict and so on.

Initialize a new Get repository: it unit

To initialize a get repository, use this command while inside the project folder. This will create a .get folder.

```
Get unit
```

Get add

This command adds one or all changed files to the stating area.

```
Get add filename.py
```

To stage new, modified, or deleted files:

```
Get add-A
```

To stage new and modified files:

```
Get add.
```

To stage modified and deleted files:

```
get add -u
```

Get commit

This command records the files in the version history. The -m means that a commit message follows. This message is a custom one and you should use it to let your colleagues or your future self know what was added in that commit.

```
git commit -m “ ”
```

Get status

This command will list files in green or red colors. Green files have been added to the stage but not committed yet.

```
get status
```

Get branch name

This will create a new branch:

get branch name

Get checkout –b branch name

To create a new branch and switch to it automatically:

Get checkout –b branch name

Get branch

To list all the branches and see on what branch you currently are:

Get branch

Get log

This command will list the version history for the current branch:

get log

Get push

This command sends the committed changes to a remote repository:

get push

Get pull

To pull the changes from the remote server to your local computer:

get pull

Task(4): Testing is the process of evaluating a system or its components with the intent to find whether it satisfies the specified requirements or not. In simple words, testing is executing a system in order to identify any gaps, errors , or missing requirements in contrary to the actual requirements.

Testing is one of the important aspects in SDLC because of the following reasons:

1.Testing in SDLC helps to prove that all the software requirements are always implemented correctly or not.

2. Testing helps in identifying defects and ensuring that testing are addressed before software development. If any defect is discover and fixed after development, then the correction cost will be much huge than the cost of fixing it at earlier stages of development.

3.Testing in SDLC demonstrates that software always appears to be working correspond to specification, and the sociology and performance requirements always appear to have been met.

4.Whenever several systems are developed in different components, different

levels of testing help to verify proper integration or interaction of all components to rest of the system.

5.Testing in SDLC means that testing always improves the quality of product and project.

Task(5): Unit is an open source unit testing tool for java programming language. It is important tool for test-driven development and deployment.

Features:

.Preparation of input data and setup/creation of fake objects

.Loading databases with a specific known set of data

.It provides annotations so that test classes can have fixture run before and after every test

.Unit provides support for writing and running tests

.It provides annotations to identify test methods

.Provides assertions for testing expected results

.Unit tests allow writing codes faster, which increases quality