Lab VI: Activity & Class Diagram

IT 314

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Exercise:

Draw an activity diagram to graphically represent the following workflow Let us consider the development activities of SE Virtual Labs. The process begins by checking out the code from Subversion repository. Necessary modifications are then made to the checked out code (local copy). Once the developer is done with his changes, the application has to be tested to verify whether the new functionality are working fine. This test has to be performed with two of the more popular web browsers: Firefox and Internet Explorer, to support cross-browser accessibility. If testing fails in at least one of the two browser, developer goes back to his code, and fixes it. Only when all the browsers pass the test, a patch is generated from the local copy, and applied to the production code. The local copy is then committed resulting in update of the SVN repository. Note that, if the local copy is committed before generating a patch file, then local changes would get registered, and one won't be further able to generate the patch file. Think over the following questions:

1. *How would you represent testing of the application with multiple browsers?*

   To represent the testing of the application with multiple browsers, we need to use a fork so that both actions get executed simultaneously and output will be generated at the same time.

2. *Can generation of the patch file and update the Subversion repository be done concurrently?*

   No, the patch file is made first, then it will be applied to production code and then the Subversion repository will be updated.

3. *Can patching the production code and updating the Subversion repository be done in parallel?*

   Yes, patching the production code and updating the Subversion repository be done in parallel, as they are not inter dependent. But, it is advisable to generate the patch file first before applying it to production code.

Learning Objectives:

1. *Identify the basic units of work, and visualize the work flow.*

   First, a copy of the repository is built, changes are made to the local code, and then it is performed concurrently in Firefox and Internet Explorer. If every browser passes the test, the procedure will run if the local copy is committed; if not, it will create a patch file, commit the local copy of the code, and then update the SVN repository.

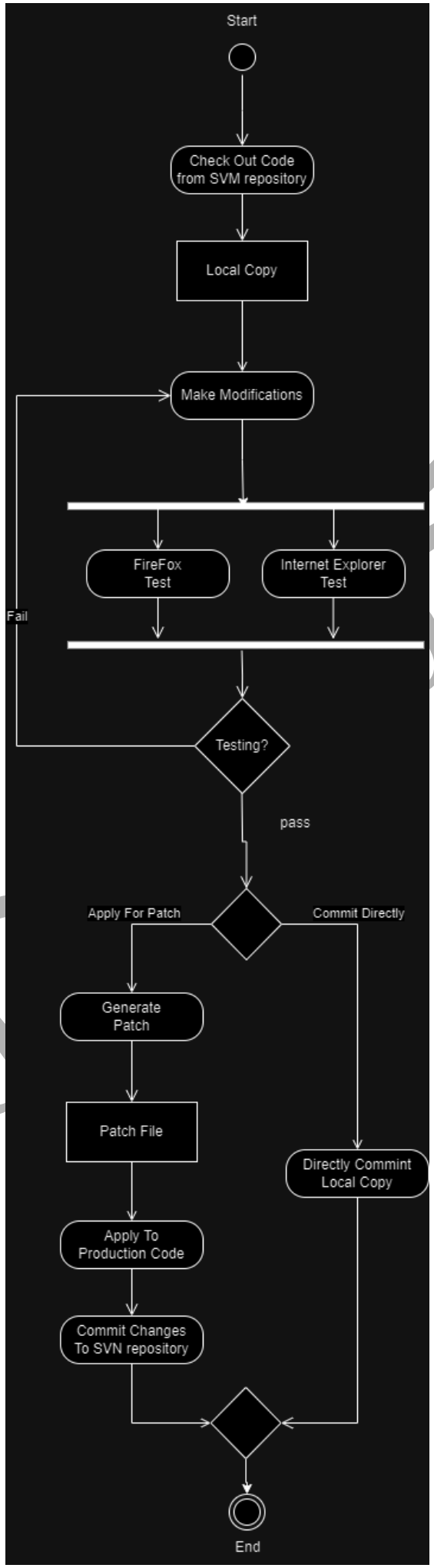
2. *Identify activities that could be done in parallel.*

   The checking of code in both browsers (Firefox and Internet Explorer) will be done parallelly.

3. *Identify stages from where progress could be made only after a list of criteria is satisfied*

   The code must be changed if at least one of the two browsers (Internet Explorer and Firefox) fails the testing at the checking step. If the local copy is committed before creating a patch file, in which case the patch file cannot be created.

ACTIVITY DIAGRAM



CLASS DIAGRAM

Draw class diagram for any one of the sprints by identifying objects, classes and their relationships.