

IT314-Software Engineering (2022-2023)

Lab VI: Activity & Class Diagram

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Group 3

I. Activity Modeling

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.

Identify the Basic Units of Work:

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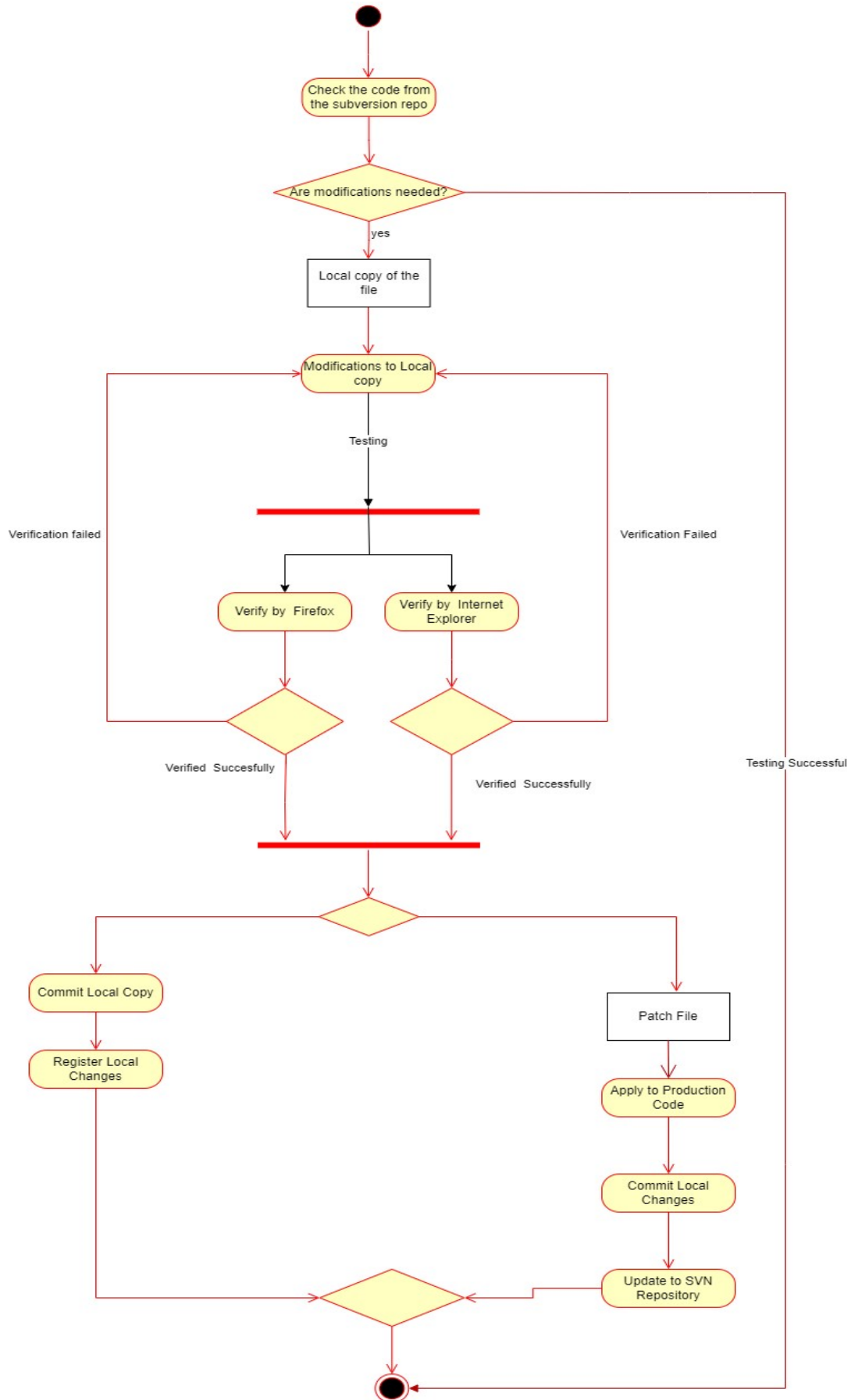
- Checking out the code from the Subversion repository.
- Making necessary modifications to the local copy. Testing the application with Firefox and Internet Explorer.
- Generating a patch from the local copy.
- Applying the patch to the production code. Committing changes to the local copy.
- Committing changes to the SVN repository.

Identify activities that could be done in parallel:

- Testing with Firefox and Internet Explorer can be done in parallel.
- Generating a patch and committing changes to the local copy can be done in parallel.
- Committing changes to the SVN repository can also be done in parallel with other activities once a patch is generated.

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

- Progress to the "Commit to SVN Repo" stage can only be made after successfully testing with both Firefox and Internet Explorer (i.e., if the test fails in at least one of the two browsers, the developer must go back and fix the code).
- Progress to the "Generate Patch" stage can be made only after modifying the local copy.



CLASS DIAGRAM

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

