IT-314 Software Engineering
Lab 6 Report

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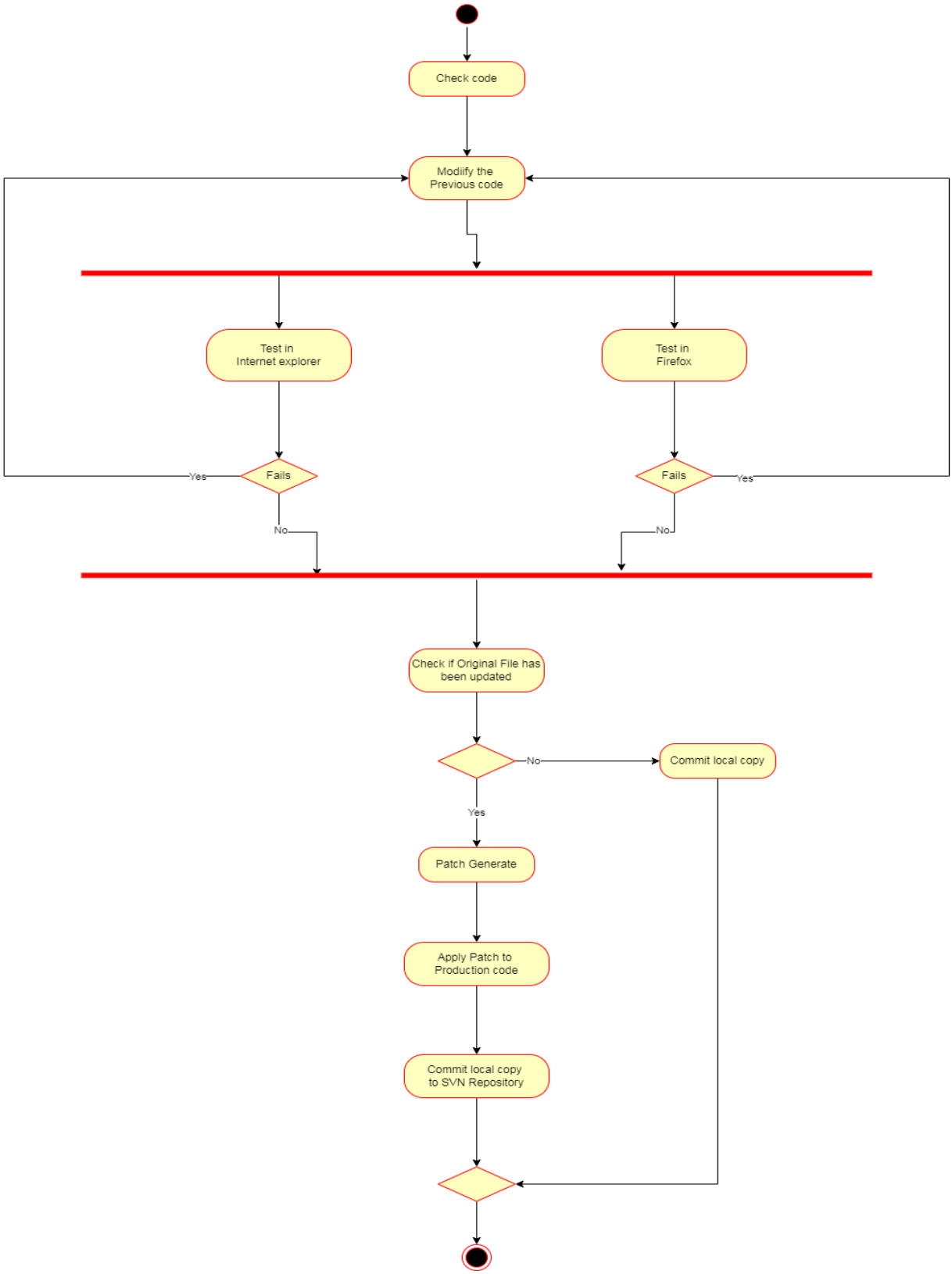
Exercise:

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 thenm 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.

Activity diagram:



Think over the following questions:

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

Ans**:** To test the program across many browsers, we must use a fork to make sure that both tasks are completed concurrently and that output is generated.

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

Ans: No, the patch will be applied to the production code first, then the patch file will be made, and finally the Subversion repository will be updated.

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

Ans: Applying the Patch to Production Code: This step can be finished after the Patch has been properly produced. Implementing the update in the production code completes the process. Only once the production code has been patched can this step be finished. submitting changes to an SVN repository. After modifications are committed, the SVN repository is updated.

Learning Objectives

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

Ans: The approach includes modifying the local code, copying the repository, and starting Firefox and Internet Explorer simultaneously. The process will execute if every browser passes the test and the local copy of the code has been committed; otherwise, a patch file will be generated, the local copy of the code will have been committed, and the SVN repository will have been updated.

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

Ans**:** Both Firefox and Internet Explorer will have their code checked parallel.

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

Ans: If at least one of the two browsers (Internet Explorer and Firefox) fails the testing at the checking step, the code must be updated.

- If a patch file is not able to be created because the local copy has already been committed.

Class Diagram (Book Issue Sprint):