IT314 Software Engineering
Lab 6: Activity & Class Diagram

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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 the 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 is 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 browsers, the 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 an 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. Note: For further clarification, at any point of time there exists three versions of the source code: Production copy, local copy, and copy in SVN repository.

Think over the following questions:
• How would you represent testing of the application with multiple browsers?
Ans : Testing on both the browsers is necessary so I have used the fork and working condition to show that the patch file will be only generated after the successful testing

• Can generation of the patch file and update the Subversion repository be done concurrently?
Ans : NO
        Should not be done as it concerns data integrity. First the patch file should be generated, then gets attached to the production code and then the commit happens.

• Can patching the production code and updating the Subversion repository be done in Parallel?
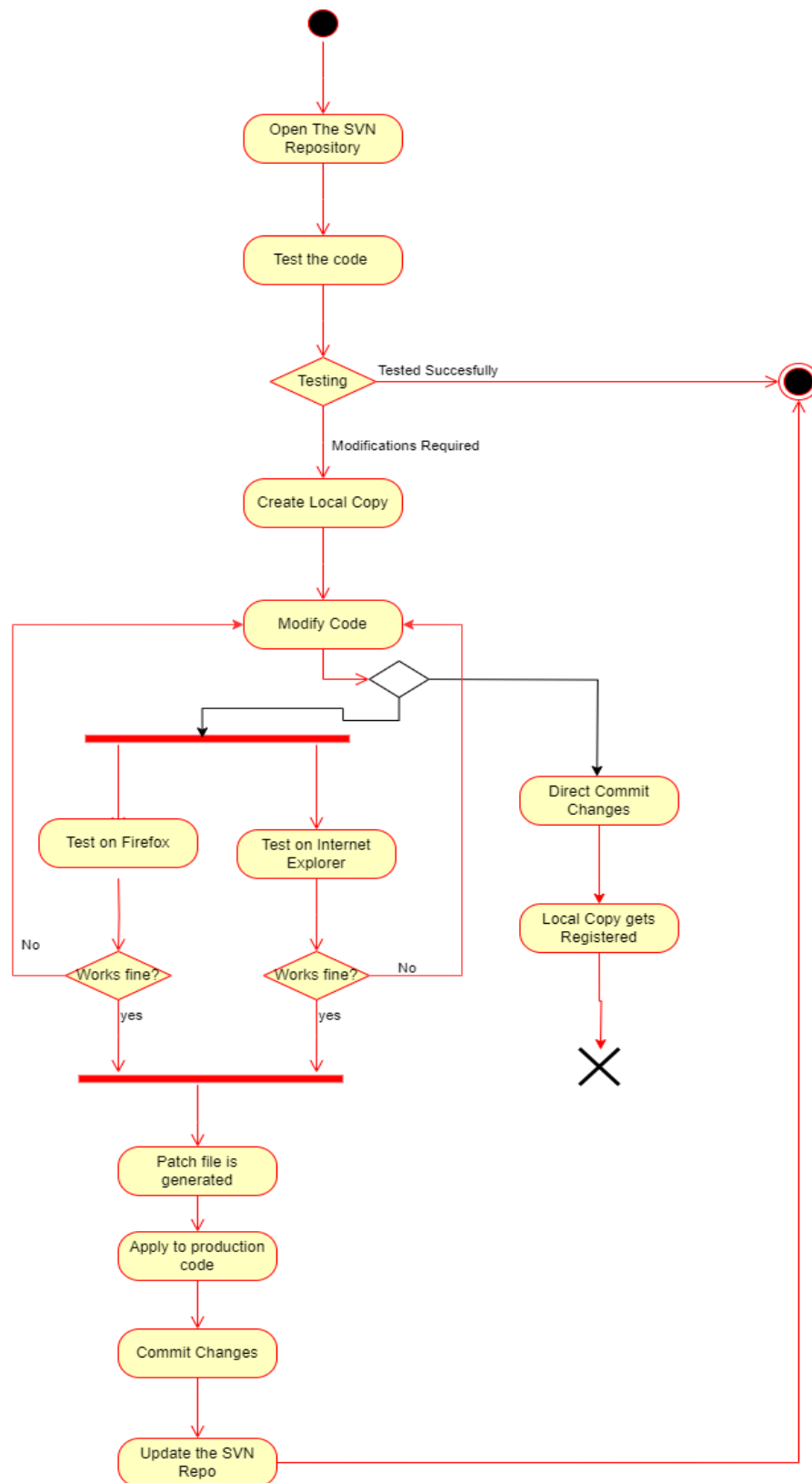**Ans : NO**
        Should not be done as it concerns data integrity. First the patch file should be generated, then gets attached to the production code and then the commit happens.

Activity Diagram

Class Diagram

Library Management system

UserType
Username
Password
Login()
Register()
Logout()

User

Name
Student ID
get_book_info()
issue_book()
Search_book()

Book

Title
Author
ISBN
Publication
Show_due_date()
Reservation_status()
book_request()
Renw_info

Libranian

Name
ID
issues_book()

Library_database

List_of_books
Add()
Delete()
Update()
Display()
Search()

Account

no_of_borrowed_books
no_of_reserved_books
no_of_returned_books
Fine_amount
Calculate_fine()

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