IT313-Software Engineering (2022-2023)
Lab V: Activity & Class Diagram

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• How would you represent testing of the application with multiple browsers?

I would represent it with using fork and then checking with conditions if they both are passed then only it moves further else it is redirected to modify changes action.

• Can generation of the patch file and update the Subversion repository be done Concurrently?

No it cannot be done concurrently as after the generation of patch file we should update the Subversion repository,as it may happen that first the subversion repository is update and then patch file is generated but that is of no use.

• Can patching the production code and updating the Subversion repository be done in Parallel?

Yes, it is possible to patch the production code and update the Subversion (SVN) repository simultaneously. This indicates that the developer can proceed to apply the patch to the production code after testing is complete and a patch is generated from the local copy, while simultaneously committing the changes to the SVN repository.

Identify the basic units of work, and visualize the work flow

Firstly , developer checks out the code and copy is created in local machine then developer modifies the code then it tests the code in both internet explorer and firefox if anyone of two test is failed then code is again send for modification.If both the tests are successful then if it is committed before generation of patch file then it gets registered in svn repository but if patch file is not generated before local copy is committed and if patch file is generated then code is applied at production level and then changes are updated and committed in svn repository.

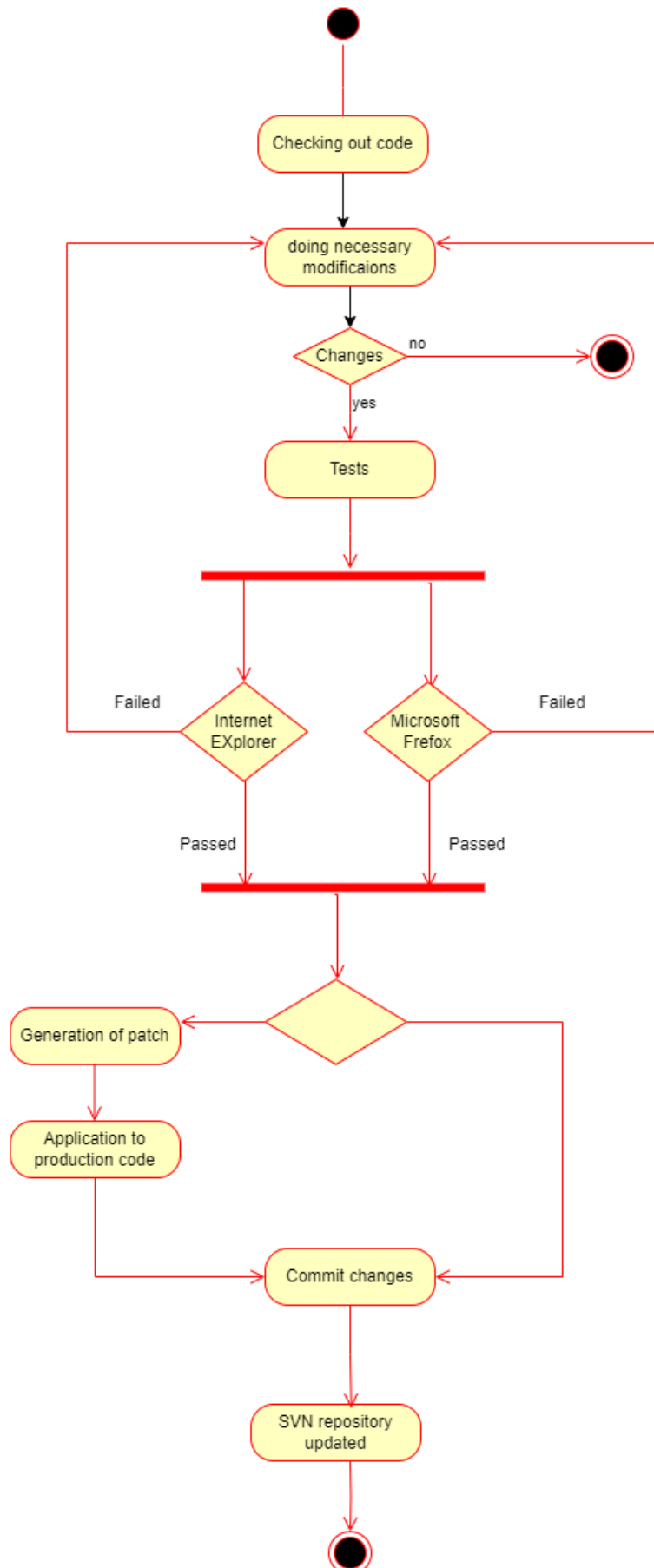**• Identify activities that could be done in parallel**

The activities that can be done in parallel are testing of code in local copy in internet explorer and firefox.

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

1. If at least one of the two browsers (Internet Explorer and Firefox) fails the testing at the checking step, developer should modify changes in code.

2.If local copy is committed before patch file is generated then , patch file cannot be generated again.

Activity Diagram:-

I. Class diagram

Transaction

ID: int
Book id: string
user id:int
issue date: date
Due date: date

+ Create Transaction()
+ Retrive Transaction()

Librarian

ID: int
Phone Number: long int
Email id:string

+ Issuebook()
+ returnbook()
+ Addbook()
- removebook()
+ Verification()
+ Registration()

User

user id: int
Email id: string
phone number: long int
Adress : string

+ Issuebook()
+ returnbook()
+Registration()
+ ReIssuebook()

Book

ISBN Number: int
Book id: string
edition: int
Author :string
Publisher :string
Total copies:int

+ update status()
+ display details()
+ Avaibility()

Student

ID: int
Name: string

+ Registration()

Employee

ID: int
Name: string

+ Registration()

0..*   0..*   0..*   0..*   0..*   1   1   0..*   0..*