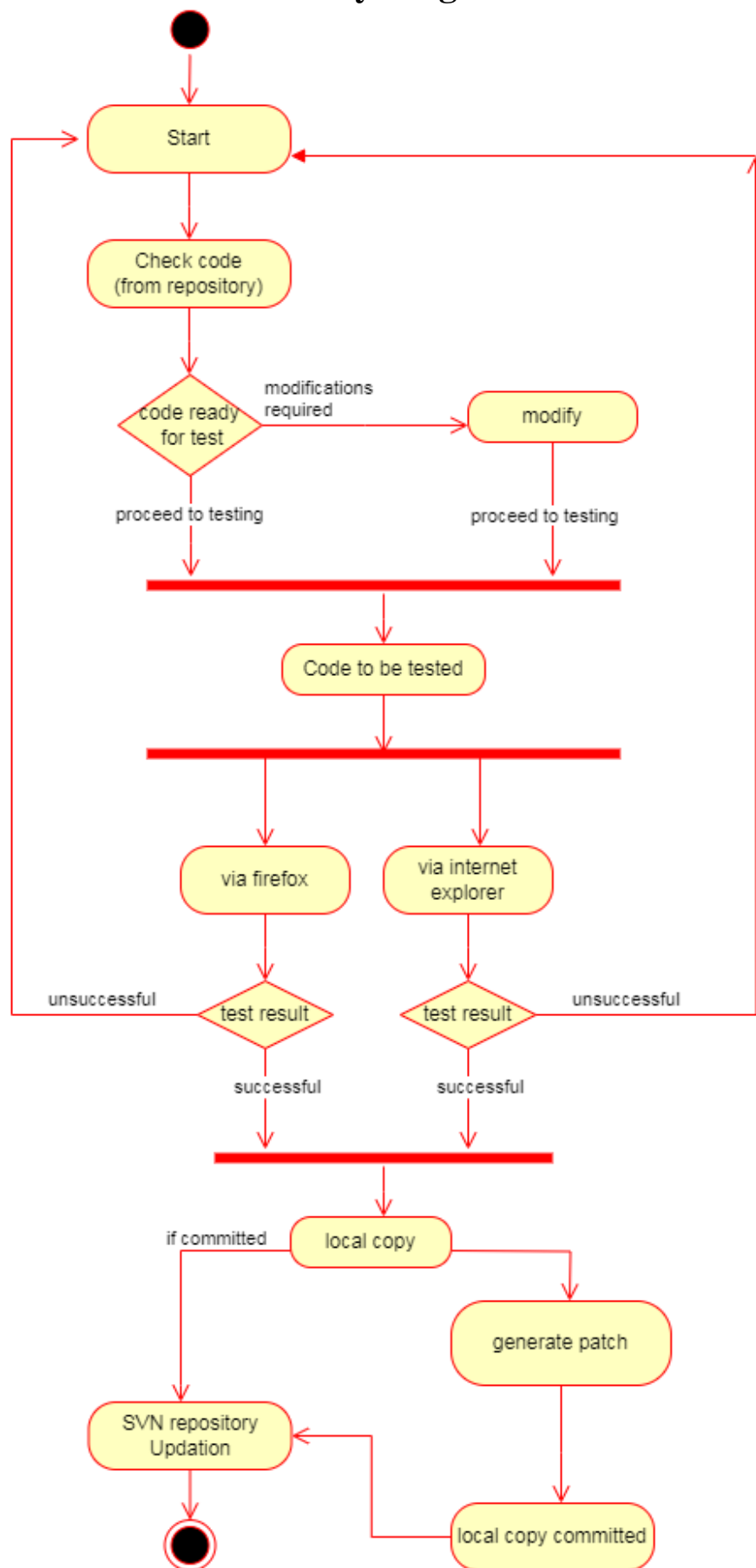# IT314: Software Engineering

Lab-06

Kirtika Basant
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Activity Diagram

Questions:

1. How would you represent testing of the application with multiple browsers?
   ⇨ We'd use **forking** to illustrate simultaneous testing of the code using each of the browsers.

2. Can generation of the patch file and update the Subversion repository be done
   Concurrently?
   ⇨ No, since they are **sequential activities** (present at different levels in the activity diagram).

3. Can patching the production code and updating the Subversion repository be done in
   Parallel?
   ⇨ Applying a patch to production code can be done only after the completion of the generation of the patch. And the SVN repository updation can be done only once the patch is generated and submitted.

Learning Objectives:

1. Identify the basic units of work and visualize the workflow
   ⇨ Initially, a copy of the repository is produced.
   ⇨ Modifications are made in the local code
   ⇨ Then it is tested simultaneously in Firefox and Internet Explorer.
   ⇨ Only if both tests are passed, it'll proceed further.
   ⇨ If the local file is committed without a patch, it'll get irreversibly updated in the SVN repository.
   ⇨ Otherwise, we'll create and apply a patch to the produced code, commit it, and then update the SVN repository accordingly.

2. Identify activities that could be done in parallel
   ⇨ Testing of code using the browsers.

3. Identify stages from where progress could be made only after a list of criteria is satisfied
   ⇨ The code must be checked for any modifications and finalized before forwarding it for testing.
   ⇨ After testing, if either shows the " unsuccessful " status, some modification is necessary.
   ⇨ For patch creation, the local copy must not have been committed.

Class Diagram

Member

memberID: string
Name: string

+issuebook()
+returnbook()
+verification()

Librarian

LibID: string
Name: string

+issuebook()
+returnbook()
+addbook()
+removebook()
+verifyissuer()

Book

bookID: string
booktitle: string
shelfnum: integer

+displaydetails()
+updatestatus()
+viewstatus()

1

0..*

Library Employee

memberID: sring
name: string

+register()
+verification()

Student

memberID: sring
name: string

+register()
+verification()

0..*

0..*

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