IT313-Software Engineering

Lab 6: Activity & Class Diagram

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

As testing on different browser can be done in parallel, we use the fork and join.

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

No. In the workflow it is stated that once patch file is generated, then update the SVN repo.

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

- Check out the code from Subversion repository
- Make the changes on checked out code
- Test the code on Firefox and Internet Explorer
- If test is not passed then modify the code again. After passing the test generate the patch file
- Commit the changes in the local copy
- Update SVN repository

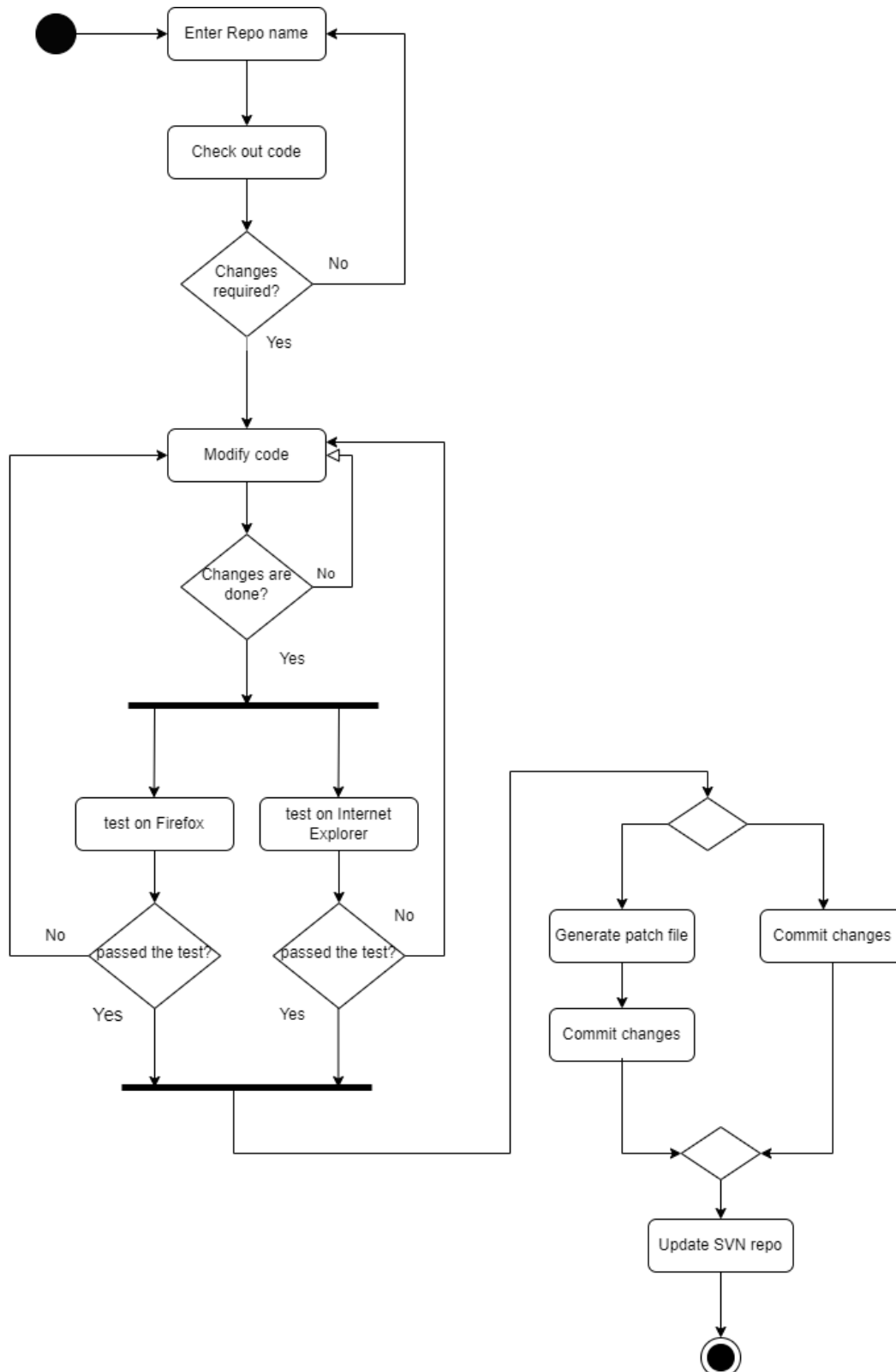**Identify activities that could be done in parallel:**

- Testing on different browsers can be done parallel

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

- If browsers pass the test, then only patch file is generated

- You can commit, only when browsers pass the test
- After committing the local file, SVN repo is updated

Activity diagram:

Class diagram for updating inventory:

```
┌─────────────────────────────────────┐
│      Library Management System       │
├─────────────────────────────────────┤
│  UserType                            │
│  UserId                              │
│  UserName                            │
│  Password                            │
├─────────────────────────────────────┤
│  login()                             │
│  Register()                          │
│  Logout()                            │
└─────────────────────────────────────┘
```

```
┌──────────────────────┐      ┌──────────────────────┐      ┌──────────────────────────┐
│         Book         │      │       Librarian      │      │     Library_Dtabase      │
├──────────────────────┤      ├──────────────────────┤      ├──────────────────────────┤
│  Tittle              │      │  Name                │      │  List_books()            │
│  Author              │      │  Password            │      ├──────────────────────────┤
│  ISBN                │      ├──────────────────────┤      │  Add()                   │
│  Publication         │      │  issues_book()       │      │  Remove()                │
├──────────────────────┤      └──────────────────────┘      │  Update()                │
│  Reservation_status()│                                    │  search()                │
│  book_request()      │                                    │  Display()               │
└──────────────────────┘                                    └──────────────────────────┘
```