IT-314

Software Engineering

LAB-5 Report

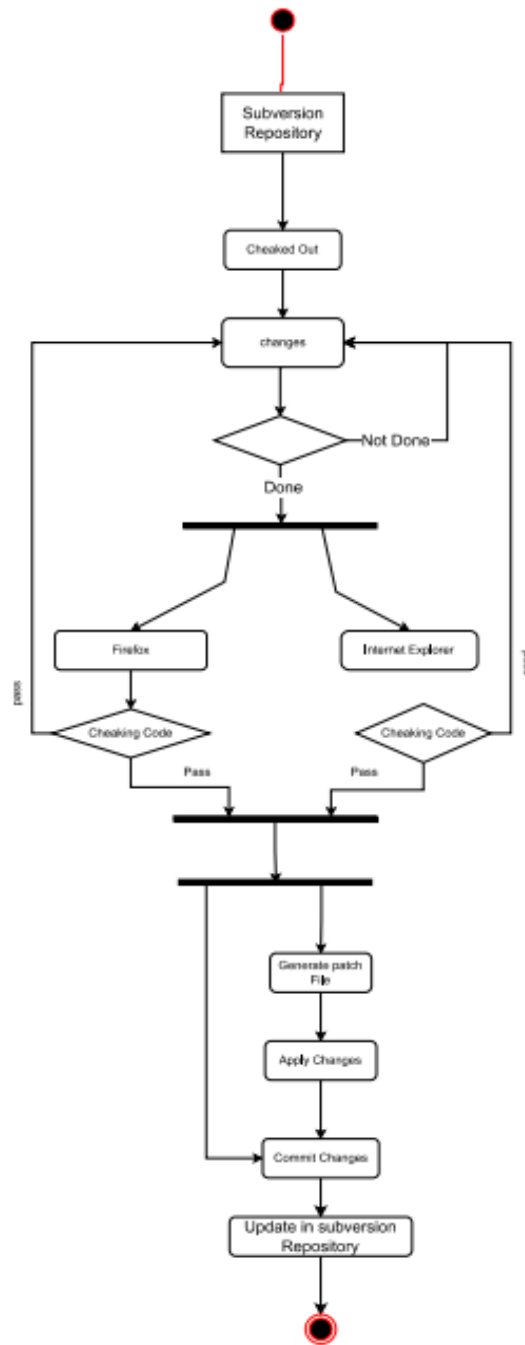## Activity & Class Diagram

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Activity Diagram

→Activity Diagram proper image is in the last..
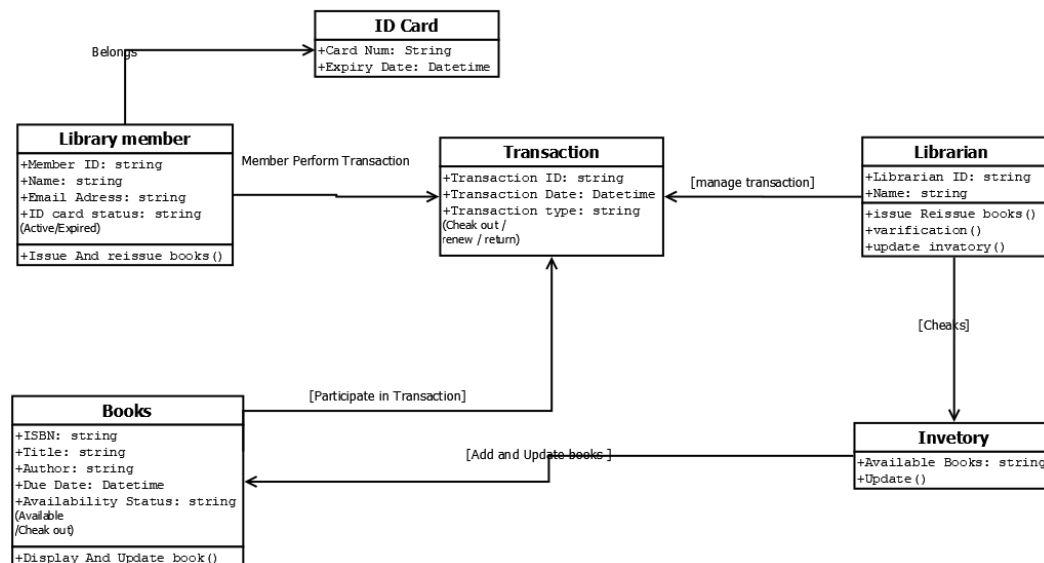

→Activity Diagram proper image is in the last..

Think over questions:

1. In order for both actions to be completed and output to be produced simultaneously, we need to utilize fork to symbolize testing the application across several browsers.

2. There won't be a first patch file created, which will then be applied to the production code before the Subversion repository is updated.

3. Applying Patch to Production Code: After the patch has been generated successfully, you can move on to this stage. The workflow is finished by applying the patch to the production code. Committing Changes to SVN Repository: This step can only be completed after the production code has been patched. The SVN repository is updated after the modifications are committed.

Learning Objectives:

1. Determine the fundamental components of work and depict the workflow. The process involves creating a clone of the repository, making adjustments to the local code, and then running Firefox and Internet Explorer simultaneously. The procedure will execute if the local copy of the code is committed and every browser passes the test; otherwise, it will produce a patch file, not commit the local copy of the code, and then update the SVN repository.

2. Identify tasks that could be completed concurrently. Both Firefox and Internet Explorer will have their code checked concurrently.

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

(a) If at least one of the two browsers (Internet Explorer and Firefox) fails the testing at the checking step, the code must be updated.
(b) If a patch file isn't able to be created since the local copy has already been committed.

Que 2: Class Diagram

ID Card
+Card Num: String
+Expiry Date: Datetime

Belongs

Library member
+Member ID: string
+Name: string
+Email Adress: string
+ID card status: string
(Active/Expired)
+Issue And reissue books()

Member Perform Transaction

Transaction
+Transaction ID: string
+Transaction Date: Datetime
+Transaction type: string
(Cheak out / renew / return)

[manage transaction]

Librarian
+Librarian ID: string
+Name: string
+issue Reissue books()
+varification()
+update invatory()

[Cheaks]

Books
+ISBN: string
+Title: string
+Author: string
+Due Date: Datetime
+Availability Status: string
(Available /Cheak out)
+Display And Update book()

[Participate in Transaction]

[Add and Update books]

Invetory
+Available Books: string
+Update()

Classie and their relation

- Library member :- who performs transaction
- Books :- which participate in transaction
- ID card :- Belongs to library Member
- Librarian :- Manages transactions, update inventory
- Transaction :- track transaction history of books
- Inventory :- track the books add and update books

Objects

- Library Members - Library Members who have id card at past or present
- Books - all books that belongs to library
- Id card - all card of library members
- Librarian - person who works on library
- Transection - All transaction performs by Library members like issue / return book
- Inventory - new books that can be update the library

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                     │  Subversion  │
                     │  Repository  │
                     └──────┬───────┘
                            │
                     ┌──────┴───────┐
                     │  Cheaked Out │
                     └──────┬───────┘
                            │
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        │             │   changes  │             │
        │             └─────┬──────┘             │
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        │   │ Firefox │          │Internet Explorer│
        │   └────┬────┘          └───────┬──────┘ │
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        │     ╱──┴──╲                 ╱──┴──╲      │
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            ╲Cheaking╱               ╲Cheaking╱
             ╲ Code ╱                 ╲ Code ╱
              ╲──┬──╱                  ╲──┬──╱
           Pass  │                  Pass  │
                 └───────┐      ┌─────────┘
              ━━━━━━━━━━━┿━━━━━━┿━━━━━━━━━━━
                        ━━━━━━━━┿━━━━━━━━━━━
                                │
                         ┌──────┴───────┐
                         │Generate patch│
                         │     File     │
                         └──────┬───────┘
                                │
                         ┌──────┴───────┐
                         │Apply Changes │
                         └──────┬───────┘
                                │
                         ┌──────┴───────┐
                         │Commit Changes│
                         └──────┬───────┘
                                │
                       ┌────────┴─────────┐
                       │Update in subversion│
                       │    Repository    │
                       └────────┬─────────┘
                                │
                                ●
```