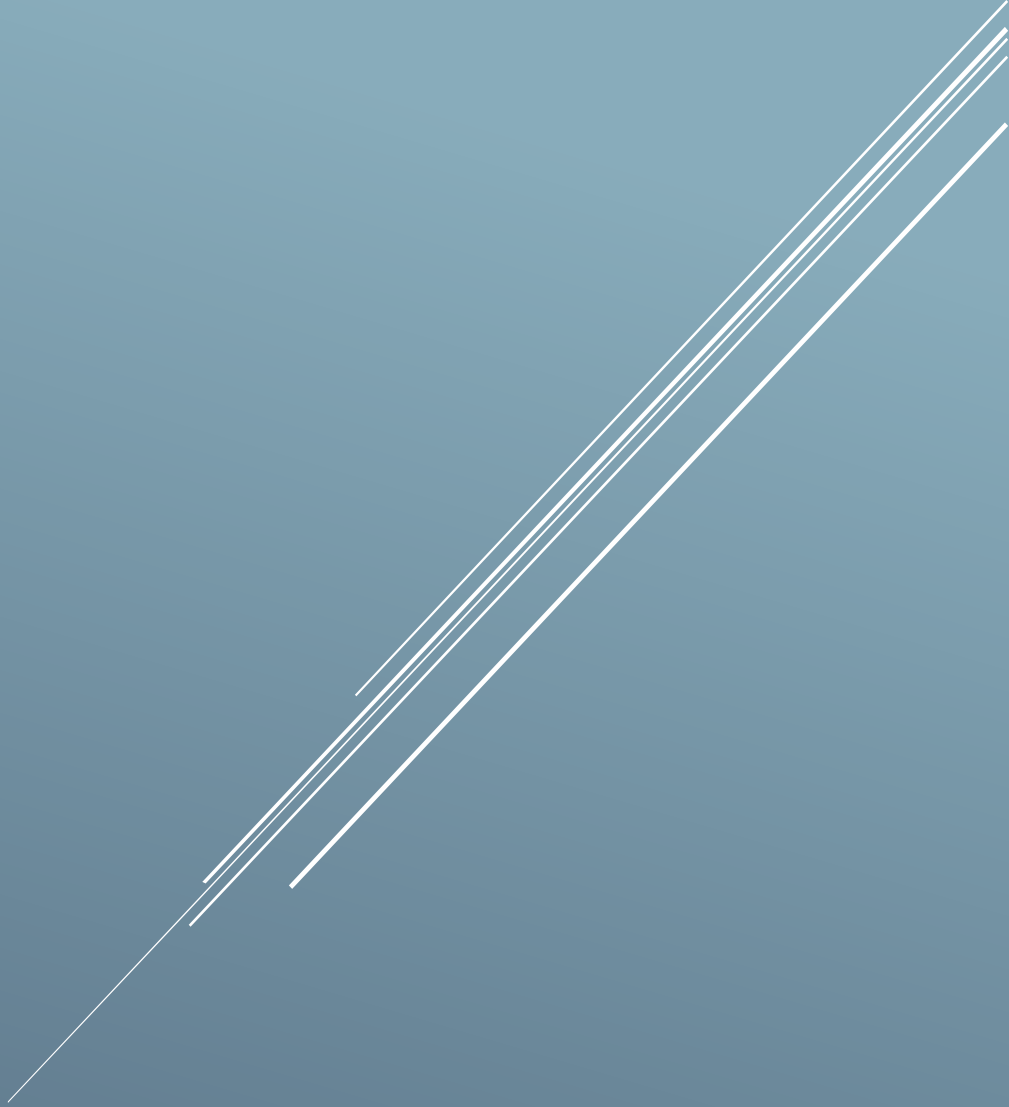


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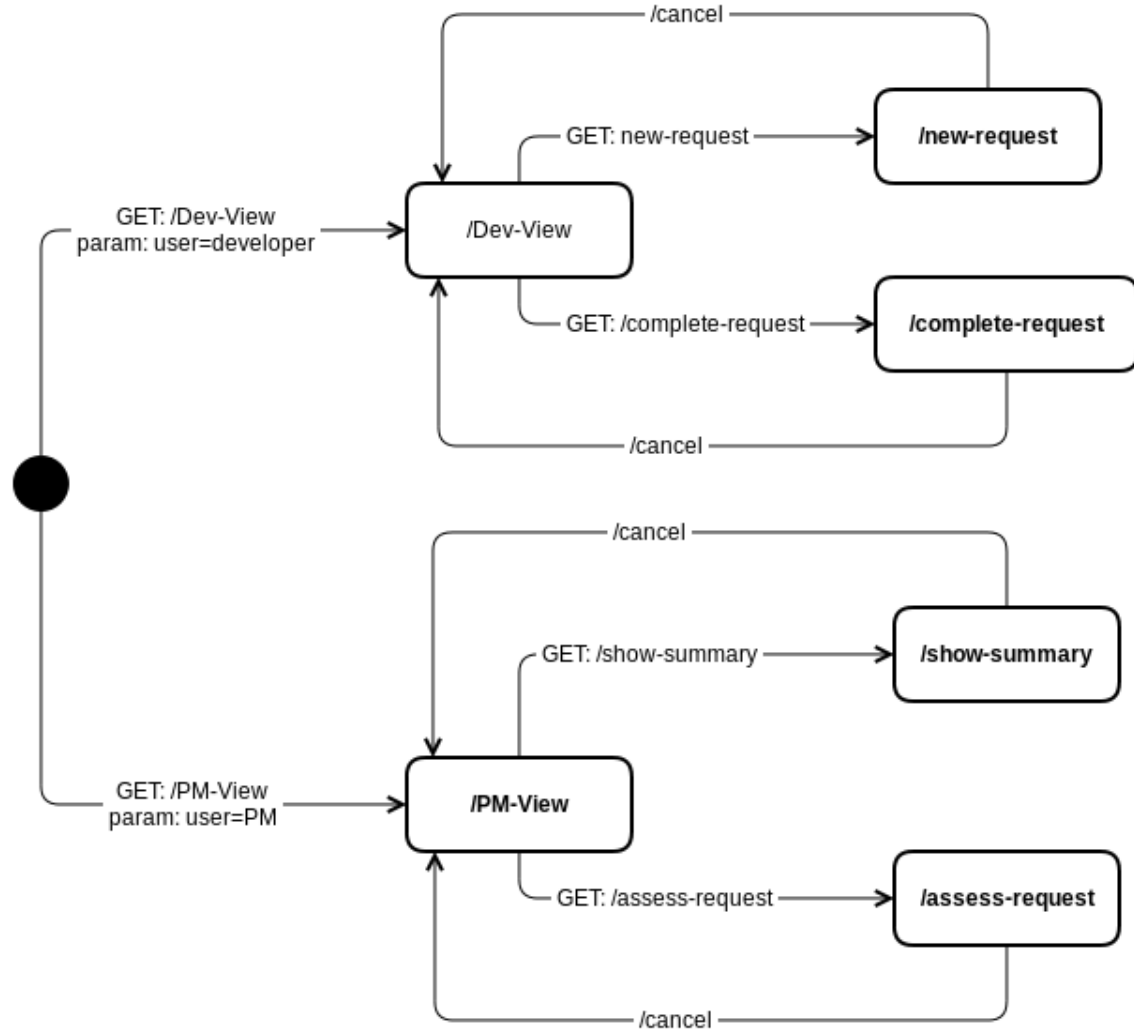


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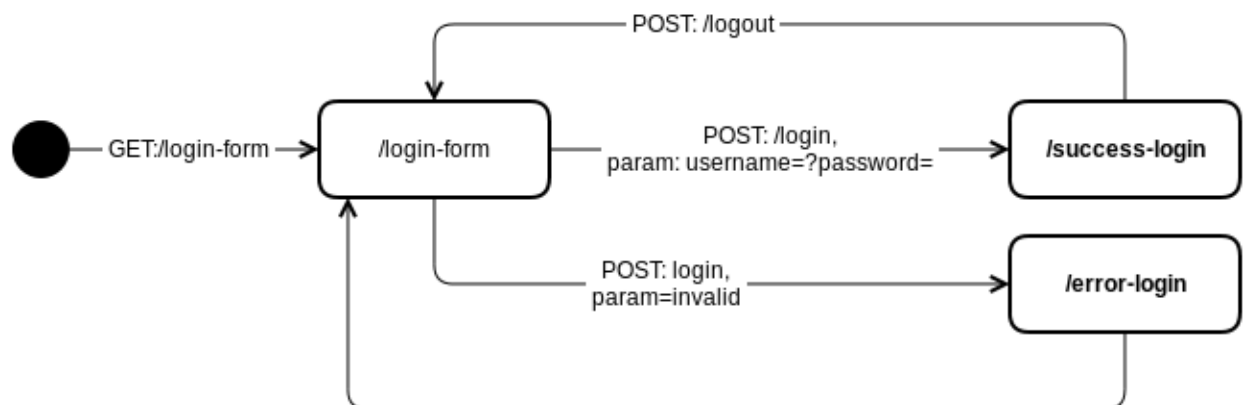
Ihtasham Chaudhry

Question 1) a)

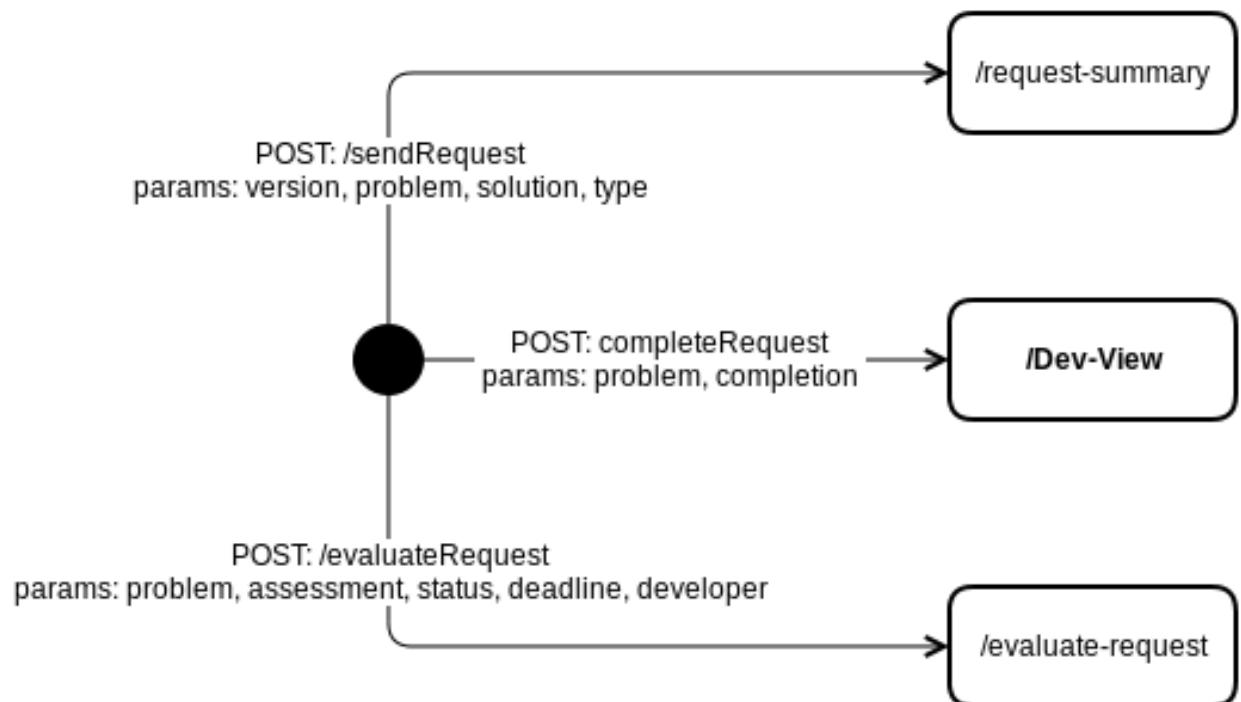
Index Controller Navigational Model:



Authorization Controller Navigational Model

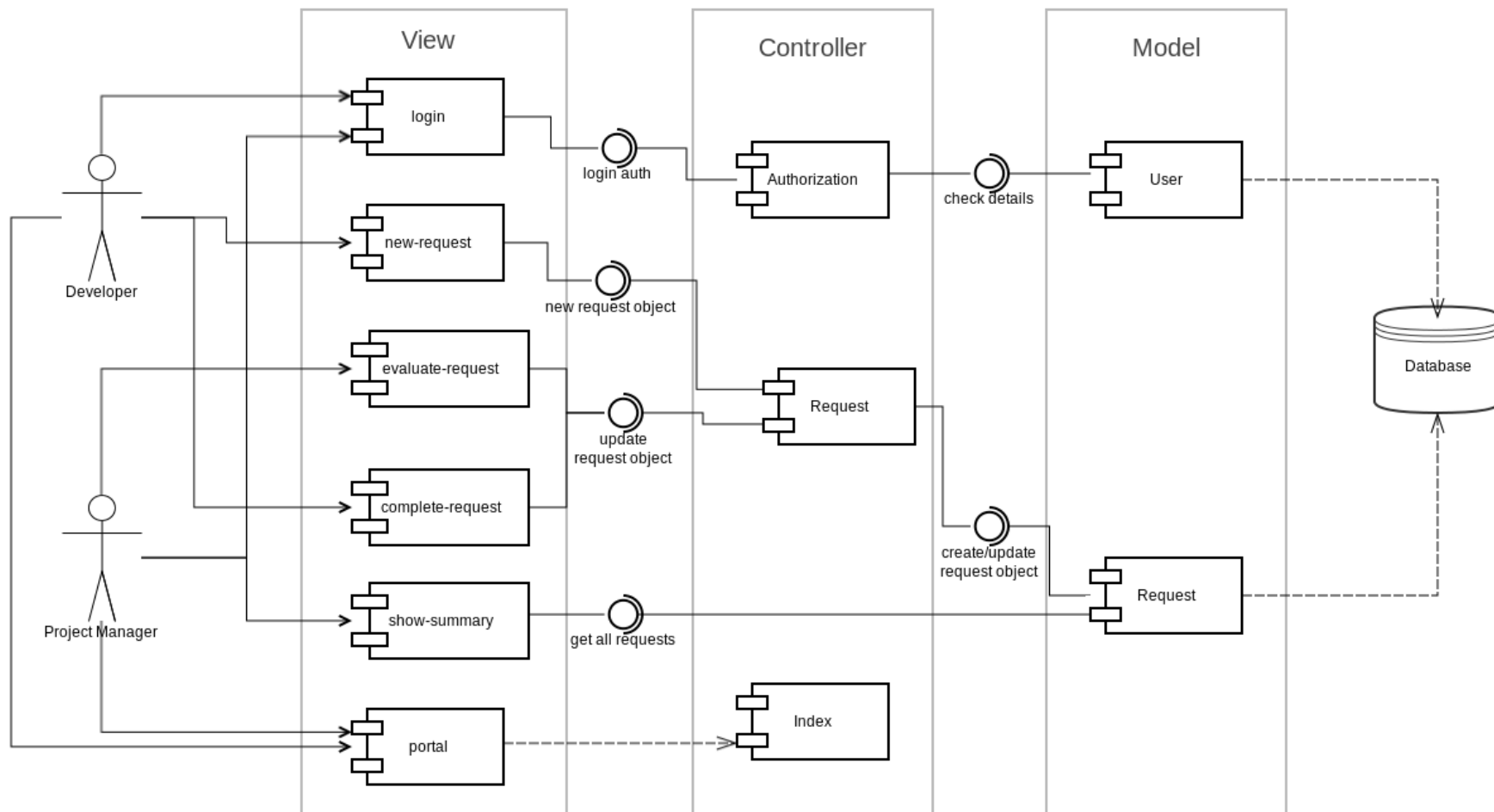


Request Controller Navigational Model

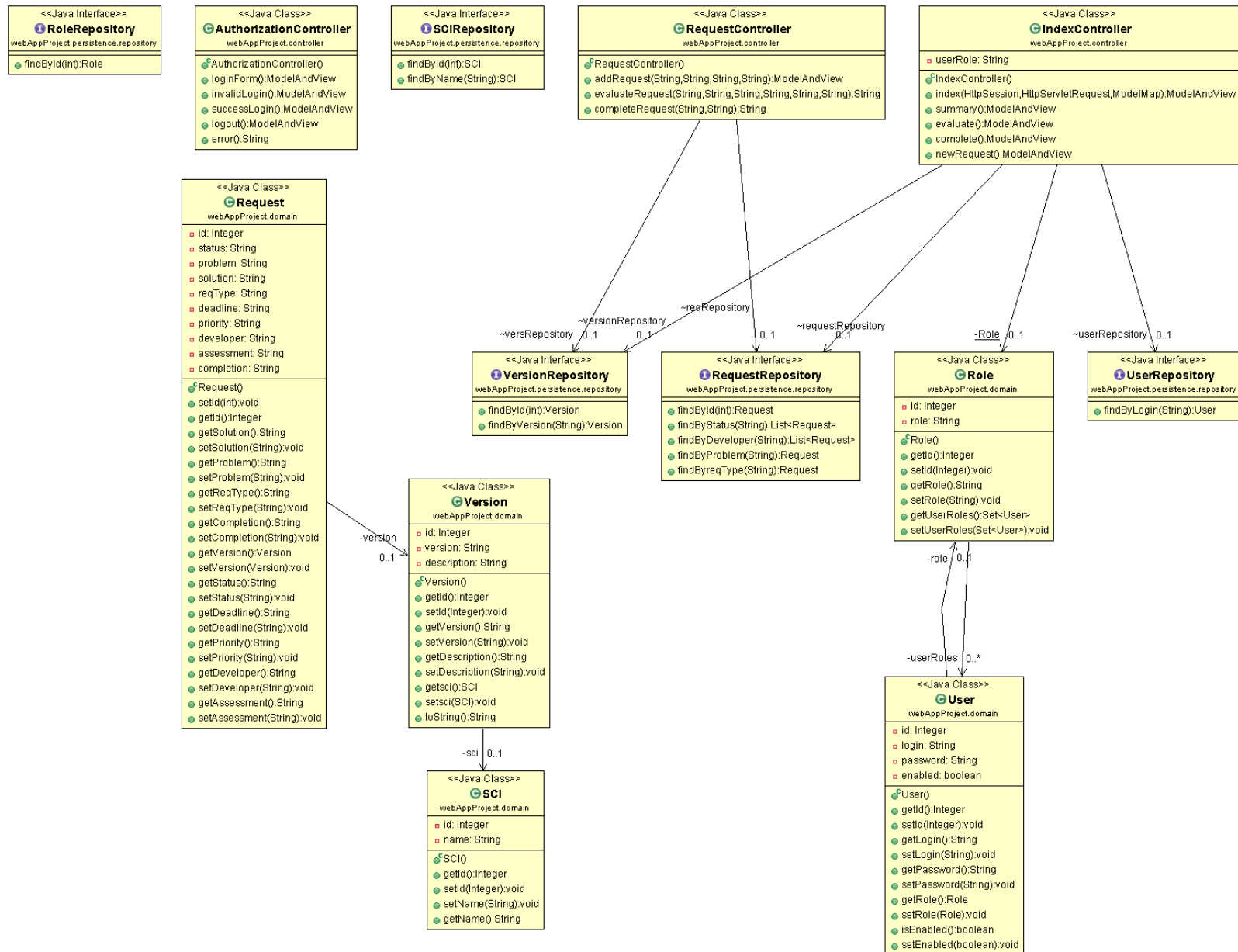


Question 1) b)

The software architectural style I will use in my web application will be Spring MVC, thus the layers I will use are: Model, View And Controller and with the addition of using a SQL database where my models will be persisted.



Question 2) a)



Question 2) b)

The MySQL script for the tables that will be used in the web application:

```
DROP TABLE IF EXISTS users;
DROP TABLE IF EXISTS roles;
DROP TABLE IF EXISTS version;
DROP TABLE IF EXISTS sci;
DROP TABLE IF EXISTS requests;
SET SQL_SAFE_UPDATES = 0;

CREATE TABLE roles (
    id INT NOT NULL AUTO_INCREMENT,
    roleName VARCHAR(45) NOT NULL,
    PRIMARY KEY (id)
);

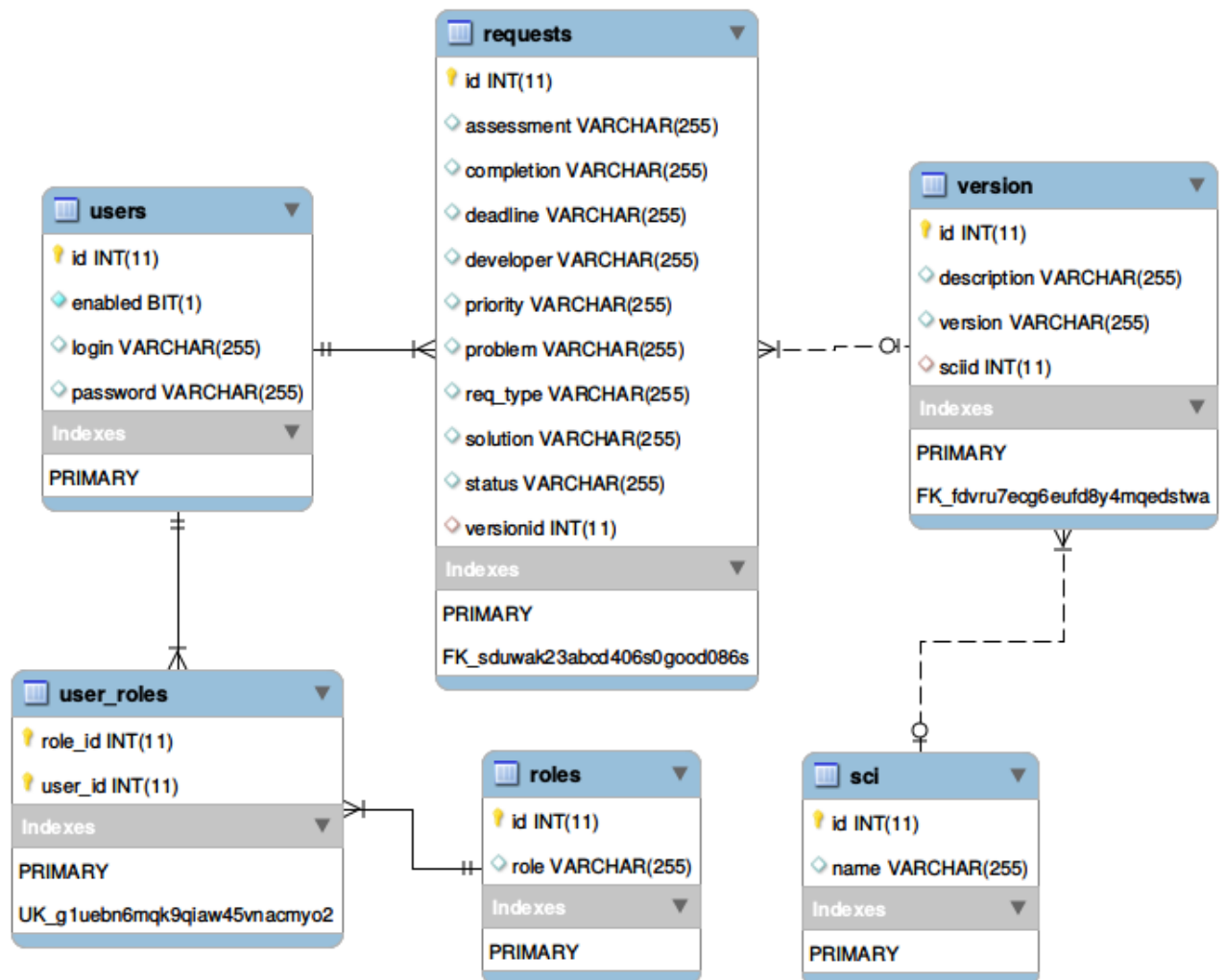
CREATE TABLE sci (
    id INT NOT NULL AUTO_INCREMENT,
    description VARCHAR(45) NOT NULL,
    PRIMARY KEY (id)
);

CREATE TABLE version (
    id INT NOT NULL AUTO_INCREMENT,
    versionName VARCHAR(45) NOT NULL,
    sciId INT NOT NULL,
    PRIMARY KEY (id),
    CONSTRAINT fk_sciID FOREIGN KEY (sciId) REFERENCES sci(id)
);

CREATE TABLE users (
    id INT NOT NULL AUTO_INCREMENT,
    userName VARCHAR(45) NOT NULL,
    password VARCHAR(200) NOT NULL,
    roleID INT NOT NULL,
    lastlogon VARCHAR(45) NULL,
    PRIMARY KEY (id),
    CONSTRAINT fk_roleID FOREIGN KEY (roleID) REFERENCES roles(id)
);

CREATE TABLE requests (
    id INT NOT NULL AUTO_INCREMENT,
    versionID INT NOT NULL,
    userID INT NOT NULL,
    problem VARCHAR(45) NOT NULL,
    solution VARCHAR(45) NOT NULL,
    type VARCHAR(45) NOT NULL,
    assessment VARCHAR(45) NOT NULL,
    PRIMARY KEY (id),
    CONSTRAINT fk_userID FOREIGN KEY (userID) REFERENCES users(id),
    CONSTRAINT fk_versionID FOREIGN KEY (versionID) REFERENCES
version(id)
);
```

This is the ERR diagram for my MySQL database:



README

All steps have been implemented fully and are fully functional. By using MockMVC I have been able to send requests and use the pages to be able to access the different parts of the web application.