PE\_HSF302\_SPR25\_TrialTest  
SPRING 2025  
Subject: HSF302  
Duration: 90 minutes

**INSTRUCTIONS**

**Please read the instructions carefully before doing the questions.**

* You are **NOT allowed** to use any other materials. You are **NOT allowed** to use any device to share data with others.
* You must use IDE as **IntelliJ IDEA 2023 or later, MSSQL Server 2019 or** **later database** for your development tools.

**IMPORTANT – Before you start doing your solution, MUST do the following steps:**

* To do your program, you must use **Spring Boot + (JSP or Thymeleaf) + Spring Data JPA + MSSQL**, apply N-Layers architecture.

*Note: you* ***are not*** *allowed to connect direct to database from Service* or UI layer*, every database connection must be used with Repository using JPA. The database connection string must get from application.properties file.* ***In the case your program connects directly to database from Service/Pages or hardcode connection string, you will get 0 point.***

1. ***If there are syntax errors or compilation errors in your PE program, you will not pass the PE requirements, the point will be 0.***
2. Create Java Project named **PE\_HSF302\_SPR25\_TrialTest\_StudentCode** and Project Spring Boot named: **CineStarPE\_TrailTest\_StudentName.**
3. Create your MS SQL database named **Cinestar2024DB** using a code-first approach with Spring Data JPA, and ensure that it includes the data provided in the **PE\_HSF302\_SPR25\_TrialTest\_Note** file
4. Set the default user interface for your project as **Login** Page
5. ***Your work will be considered invalid (0 point) if your code inserts stuff that is unrelated to the test.***

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**REFERENCES *(this session just for reference, student can use the other approach to do Practical Exam and student must change to run your program)***

1. ***Working with DB connection string from application.properties***

spring.application.name=DemoLab01  
spring.mvc.view.prefix=/WEB-INF/views/  
spring.mvc.view.suffix=.jsp  
  
spring.datasource.url=jdbc:sqlserver://localhost:1433;databaseName=Cinestar2024DB;encrypt=true;trustServerCertificate=true;  
spring.datasource.username=sa  
spring.datasource.password=1234  
spring.datasource.driverClassName=com.microsoft.sqlserver.jdbc.SQLServerDriver  
spring.jpa.show-sql=true  
spring.jpa.hibernate.ddl-auto=create

**2. Working with the *pom.xml***

<dependencies>  
 <dependency>  
 <groupId>com.microsoft.sqlserver</groupId>  
 <artifactId>mssql-jdbc</artifactId>  
 <scope>runtime</scope>  
 </dependency>  
  
 <dependency>  
 <groupId>org.hibernate</groupId>  
 <artifactId>hibernate-core</artifactId>  
 <version>6.5.2.Final</version>  
 </dependency>  
  
 <dependency>  
 <groupId>org.springframework.boot</groupId>  
 <artifactId>spring-boot-starter-web</artifactId>  
 <scope>provided</scope>  
 </dependency>  
  
 <dependency>  
 <groupId>org.apache.tomcat.embed</groupId>  
 <artifactId>tomcat-embed-jasper</artifactId>  
 <scope>provided</scope>  
 </dependency>  
  
 <dependency>  
 <groupId>org.springframework.boot</groupId>  
 <artifactId>spring-boot-starter-test</artifactId>  
 <scope>provided</scope>  
 </dependency>  
  
 <dependency>  
 <groupId>org.glassfish.web</groupId>  
 <artifactId>jakarta.servlet.jsp.jstl</artifactId>  
 <version>3.0.1</version>  
 </dependency>  
  
 <dependency>  
 <groupId>jakarta.servlet.jsp.jstl</groupId>  
 <artifactId>jakarta.servlet.jsp.jstl-api</artifactId>  
 <version>3.0.2</version>  
 <scope>provided</scope>  
 </dependency>  
  
 <dependency>  
 <groupId>jakarta.persistence</groupId>  
 <artifactId>jakarta.persistence-api</artifactId>  
 <version>3.1.0</version>  
 <scope>provided</scope>  
 </dependency>

<dependency>  
 <groupId>org.springframework.data</groupId>  
 <artifactId>spring-data-jpa</artifactId>  
 <version>3.4.2</version>  
 </dependency>  
</dependencies>

1. **Config on SpringBootApplication project**

@SpringBootApplication  
@ComponentScan({"hsf302.se.fu.vn.controllers","hsf302.se.fu.vn.services"})  
@EnableJpaRepositories(basePackages = "hsf302.se.fu.vn.repositories")  
@EntityScan(basePackages = "hsf302.se.fu.vn")  
public class DemoLab01Application {  
 public static void main(String[] args) {  
 SpringApplication.run(DemoLab01Application.class, args);  
 }  
}

|  |  |
| --- | --- |
| **Movies** | |
| MovieID | int |
| MovieName | nvarchar(50) |
| Duration | int |
| Actor | nvarchar(50) |
| Status | nvarchar(50) |
| DirectorID | int |

**5.Tables**

|  |  |
| --- | --- |
| **Accounts** | |
| Email | nvarchar(50) |
| Password | nvarchar(50) |
| RoleID | int |

|  |  |
| --- | --- |
| **Directors** | |
| ID | int |
| DirectorName | nvarchar(100) |
| Nationality | nvarchar(150) |

**6.Data**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **MovieID** | **MovieName** | **Duration** | **Actor** | **Status** | **DirectorID** |
| 1 | PEE NAK 4 | 125 | Witthawat | active | 1 |
| 2 | Doraemon | 115 | Nobita | active | 2 |
| 3 | Doraemon 2022 | 120 | Doraemon | inactive | 2 |
| 4 | Avatar | 192 | Kate Winslet | inactive | 3 |

|  |  |  |
| --- | --- | --- |
| **Email** | **Password** | **RoleID** |
| admin@cinestar.com | @4 | 1 |
| customer@cinestar.com | @4 | 4 |
| manager@cinestar.com | @4 | 3 |
| staff@cinestar.com | @4 | 2 |

|  |  |  |
| --- | --- | --- |
| **ID** | **DirectorName** | **Nationality** |
| 1 | Phontharis | Thailand |
| 2 | Fujiko Fujio | Japan |
| 3 | James Cameron | USA |