Assignment

**Problem :** Create a simple Student Management System using Hibernate to manage student records, including their courses.

Requirements:

Database Setup:

Use a relational database (e.g., MySQL).

Create two tables:

students (id, name, age)

courses (id, course\_name, credit\_hours)

A join table student\_courses to manage the many-to-many relationship (student\_id, course\_id).

Entities:

Create Java classes for Student and Course.

Student class should have attributes: id, name, age, and a list of Course objects.

Course class should have attributes: id, courseName, creditHours, and a list of Student objects.

Hibernate Configuration:

Set up Hibernate configuration using hibernate.cfg.xml.

Configure the necessary properties (dialect, connection URL, username, password).

CRUD Operations:

Implement the following operations:

Create: Add new students and courses.

Read: Retrieve and display all students and courses.

Update: Update details of a student or a course.

Delete: Remove a student or a course.

User Interface:

Create a simple command-line interface to interact with the system. The user should be able to choose operations to create, read, update, or delete students and courses.

Steps to Complete the Assignment:

Set up the Database:

Create the necessary tables in your chosen database.

Create the Entity Classes:

Implement the DAO (Data Access Object) Pattern:

Create a DAO class for both Student and Course to handle database operations.

Main Application Logic:

Create a Main class to interact with the user and perform CRUD operations.