Lindy Hagedorn

Week 10-MySql

Background

We have been developing a menu-driven application that demonstrates how to perform CRUD (Create, Read, Update, Read) operations on a DIY project database. Thus far, we have learned how to create a connection to a MySQL database and how to insert records into a table. In this section, we will apply our knowledge of querying data to list all projects without project details, and to list a single project with all details.

Objectives

In these exercises, you will expand the menu application to list all projects (name and ID). Then, you will write code to select a project to edit. This will involve returning a selected project along with all project details. This will further our pursuit of implementing CRUD operations on database tables.

In these exercises, you will:

- Hone your SQL query skills by writing SQL statements to fetch a `List` of `Project` records.
- Learn how to perform multiple queries in a single transaction.
- Write an inner join to fetch `category` rows related to a `project` row.
- Use an `Optional` to either return a `project` record or to throw a custom `Exception`.
- Practice writing Lambda expressions both to list the projects and to throw a custom `Exception` from an `Optional`.

Important

In the exercises below, you will see this icon:  .

This means to make sure that you include this functionality in your video showcase.

Also important: you should take the variable names and method names as suggestions. They're good suggestions, but if you want to deviate from them, feel free to do so. However, don't go crazy and change `listProjects()` to `emptyMyBankAccountByBuyingAJeep()`. You should follow Java best practices. Method names should describe what the method does in the interest

of self-documentation.

Instructions

URL to GitHub Repository: https://github.com/lindhage22/MySQL-java-projects

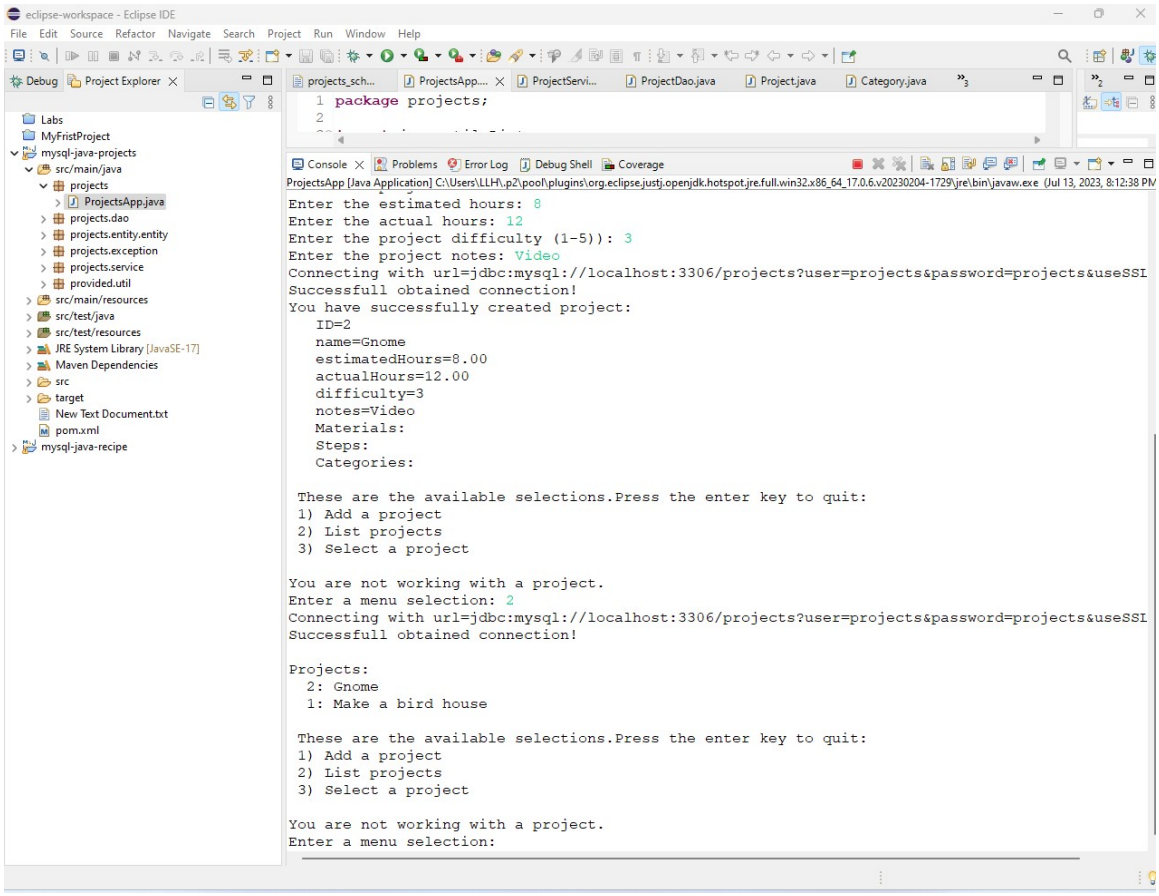
URL to Public Link of your Video: https://youtu.be/zC4umzh8xVM

Instructions :

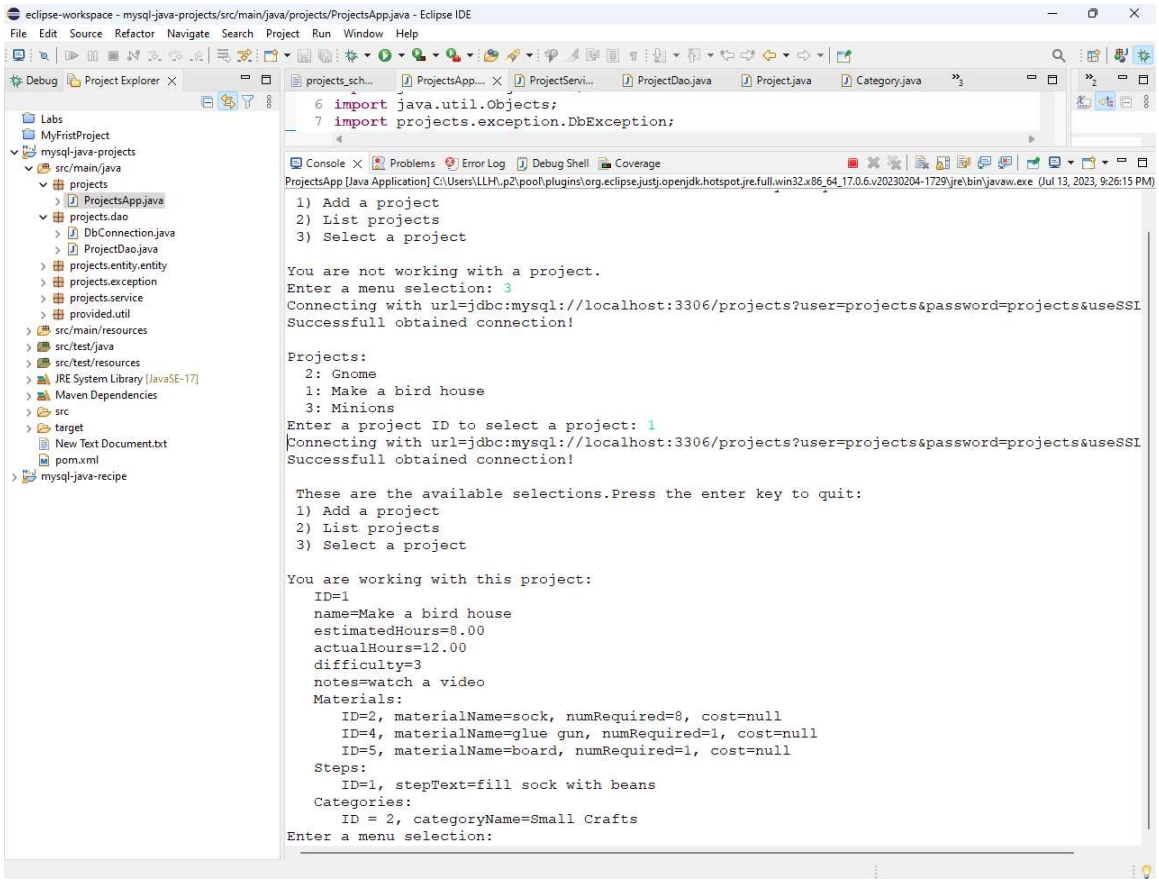
1. Follow the **Exercises** below to complete this assignment.
    - In Eclipse, or an IDE of your choice, write the code that accomplishes the objectives listed below. Ensure that the code compiles and runs as directed.
    - Create a new repository on GitHub for this week's assignment and push your completed code to this dedicated repo, including your entire Maven Project Directory (e.g., mysql-java) and any .sql files that you create. In addition, screenshot your ERD and push the screenshot to your GitHub repo.
    - Include the functionality into your Video when you see: 
    - Create a video showcasing your work:
        - In this video: record and present your project verbally while showing the results of the working project. Don't forget to include the requested functionality, indicated by: 
        - Easy way to Create a video: Start a meeting in Zoom, share your screen, open Eclipse with the code and your Console window, start recording & record yourself describing and running the program showing the results.
        - Your video should be a maximum of 5 minutes.
        - Upload your video with a public link.
        - Easy way to Create a Public Video Link: Upload your video recording to YouTube with a public link.
2. In addition, please include the following in your Coding Assignment Document:
    - The URL for this week's GitHub repository.
    - The URL of the public link of your video.
3. Save the Coding Assignment Document as a .pdf and do the following:
    - Push the .pdf to the GitHub repo for this week.
    - Upload the .pdf to the LMS in your Coding Assignment Submission.

——

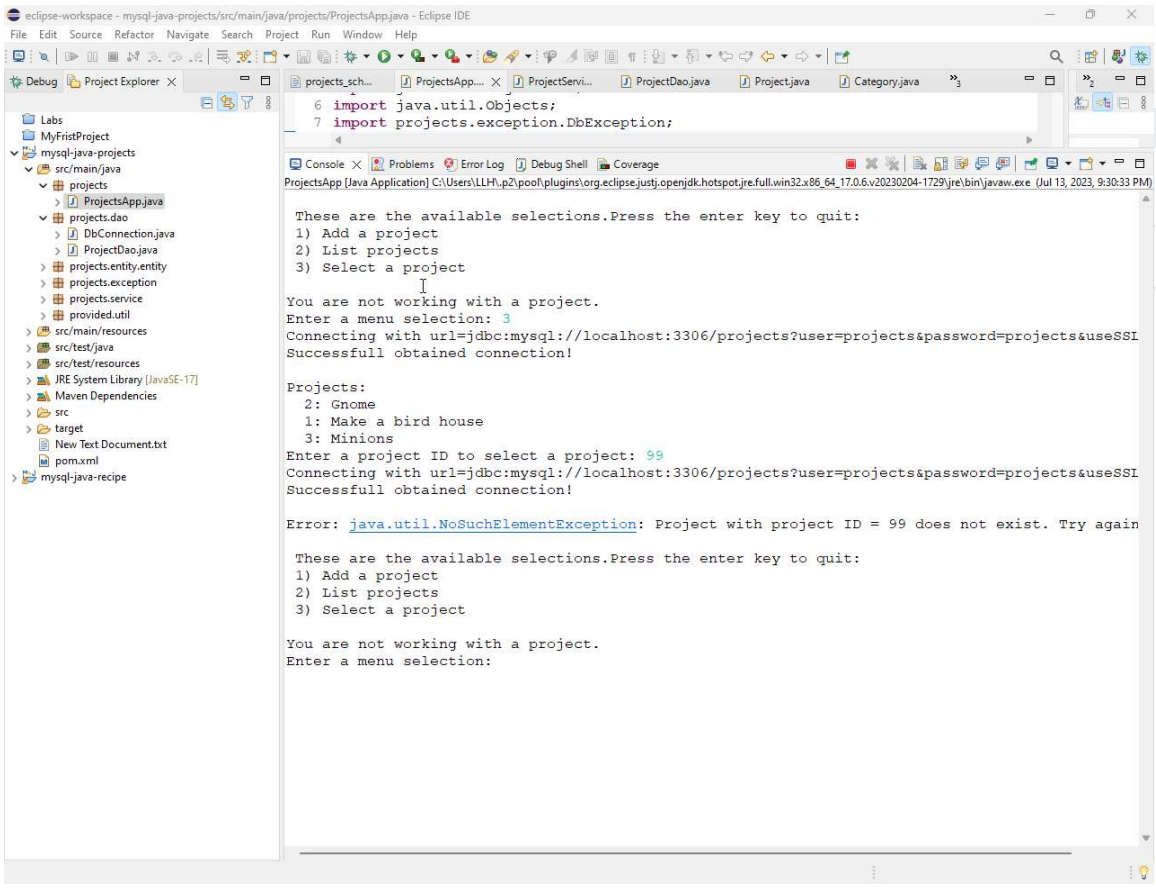
Test IT Page 5:



Test It page 13 (Items add to the project)



Test It debugging (Project does not exist)


eclipse-workspace - mysql-java-projects/src/main/java/projects/ProjectsApp.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Debug
Project Explorer
Labs
MyFristProject
mysql-java-projects
src/main/java
projects
ProjectsApp.java
projects.dao
DbConnection.java
ProjectDao.java
projects.entity.entity
projects.exception
projects.service
provided.util
src/main/resources
src/test/java
src/test/resources
JRE System Library [JavaSE-17]
Maven Dependencies
src
target
New Text Document.txt
pom.xml
mysql-java-recipe
projects_sch...
ProjectsApp....
ProjectServi...
ProjectDao.java
Project.java
Category.java
6 import java.util.Objects;
7 import projects.exception.DbException;
Console
Problems
Error Log
Debug Shell
Coverage
ProjectsApp [Java Application] C:\Users\LLH\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_17.0.6.v20230204-1729\jre\bin\javaw.exe (Jul 13, 2023, 9:30:33 PM)
These are the available selections.Press the enter key to quit:
1) Add a project
2) List projects
3) Select a project
You are not working with a project.
Enter a menu selection: 3
Connecting with url=jdbc:mysql://localhost:3306/projects?user=projects&password=projects&useSSL
Successfull obtained connection!
Projects:
2: Gnome
1: Make a bird house
3: Minions
Enter a project ID to select a project: 99
Connecting with url=jdbc:mysql://localhost:3306/projects?user=projects&password=projects&useSSL
Successfull obtained connection!
Error: java.util.NoSuchElementException: Project with project ID = 99 does not exist. Try again
These are the available selections.Press the enter key to quit:
1) Add a project
2) List projects
3) Select a project
You are not working with a project.
Enter a menu selection: