Databases and Information Systems
Lab Assignment 5

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Part A

For Part A, the same java file(Driver.java) contains the code for all three questions.

1

Driver.java

```
1  package jdbc_demo;
2
3  import java.sql.*;
4  public class Driver {
5
6      public static void main(String[] args) {
7          try {
8              //Get connection
9              Connection myConn=DriverManager.getConnection("jdbc:mysql://localhost:3306/university","universi
10             Statement myS=myConn.createStatement();
11             //Query
12             ResultSet resultSet = myS.executeQuery("SELECT * FROM student");           //Display
13             while(resultSet.next()) {
14                 System.out.println(resultSet.getString("ID")+"  "+resultSet.getString("name"));
15             }
16         }catch(Exception e) {
17             e.printStackTrace();
18         }
```

Problems Javadoc Declaration Console

```
<terminated> Driver (2) [Java Application] /usr/lib/jvm/java-11-openjdk-amd64/bin/java (04-Oct-2021, 10:44:09 pm)
00128  Zhang
12345  Shankar
19002  Karthik
19991  Brandt
23121  Chavez
44553  Peltier
45678  Levy
54321  Williams
55739  Sanchez
70557  Snow
76543  Brown
76653  Aoi
98765  Bourikas
98988  Tanaka
```

2

Driver.java

```
            while(resultSet.next()) {
                System.out.println(resultSet.getString("ID")+"  "+resultSet.getString("name"));
            }
            System.out.println("Part A Q2");
            listDepartments(myS);
        }catch(Exception e) {
            e.printStackTrace();
        }
    }
    public static void listDepartments(Statement stmt)
    {
        // Write the code for Q2
        try {
            ResultSet resultSet2 = stmt.executeQuery("SELECT dept_name,st_count,inst_count from (select dept
            while(resultSet2.next()) {
                System.out.println(resultSet2.getString("dept_name")+ " "+ resultSet2.getString("st_count")+
            }
        }
        catch(Exception e) {
            e.printStackTrace();
        }
```

Problems Javadoc Declaration Console

```
<terminated> Driver (2) [Java Application] /usr/lib/jvm/java-11-openjdk-amd64/bin/java (05-Oct-2021, 1:19:49 pm)
98988  Tanaka
Part A Q2
Biology 1 1
Comp. Sci. 5 4
Elec. Eng. 2 1
Finance 1 2
History 1 2
Music 1 1
Physics 3 2
```

3

Driver.java

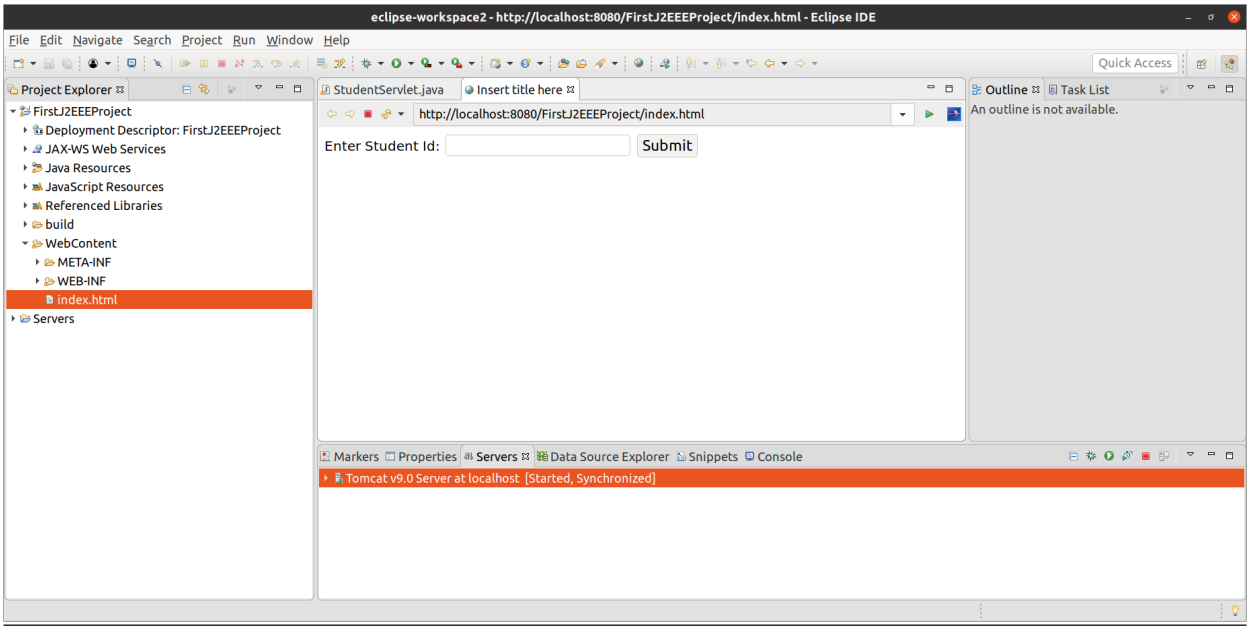
```
42      {
43          // Write the code for Q3
44
45
46          try {
47              stmt.setString(1, "Watson"); //this doesn't give null set, so I used this val
48              ResultSet resultSet3 = stmt.executeQuery();
49              while(resultSet3.next()) {
50                  System.out.println(resultSet3.getString("classroom.room_number"));
51              }
52          }
53          catch(Exception e) {
54              e.printStackTrace();
55          }
56
57
58
59
60
61
62
```

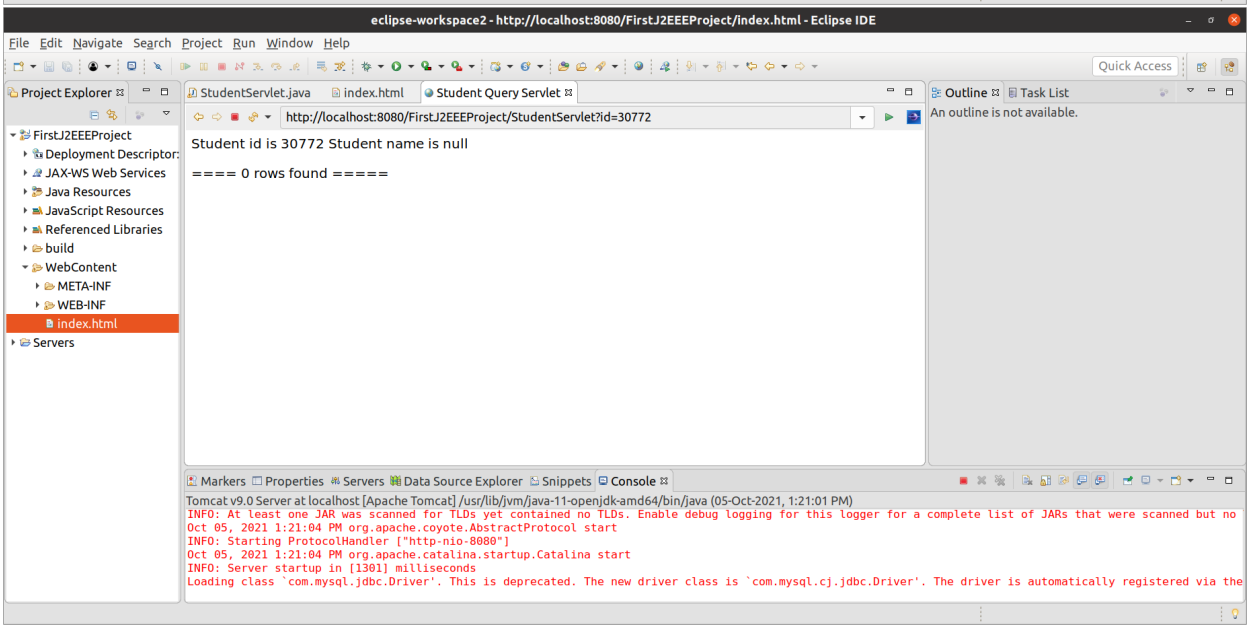
Problems Javadoc Declaration Console

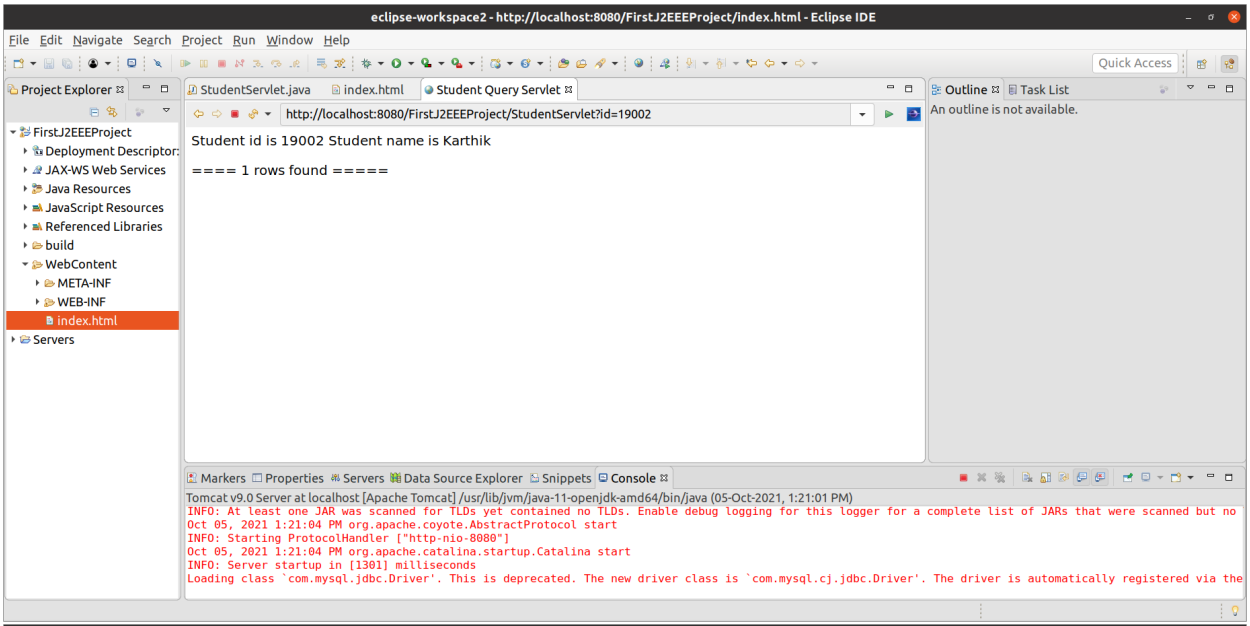
```
<terminated> Driver (2) [Java Application] /usr/lib/jvm/java-11-openjdk-amd64/bin/java (05-Oct-2021, 4:40:58 pm)
98988  Tanaka
Part A Q2
Biology 1 1
Comp. Sci. 5 4
Elec. Eng. 2 1
Finance 1 2
History 1 2
Music 1 1
Physics 3 2
Part A Q3
120
```

Part B

The java file containing the code is StudentServlet.java, and the html file is index.html.


eclipse-workspace2 - http://localhost:8080/FirstJ2EEEProject/index.html - Eclipse IDE
File Edit Navigate Search Project Run Window Help
Quick Access
Project Explorer
FirstJ2EEEProject
Deployment Descriptor: FirstJ2EEEProject
JAX-WS Web Services
Java Resources
JavaScript Resources
Referenced Libraries
build
WebContent
META-INF
WEB-INF
index.html
Servers
StudentServlet.java
Insert title here
http://localhost:8080/FirstJ2EEEProject/index.html
Enter Student Id:
Submit
Outline
Task List
An outline is not available.
Markers Properties Servers Data Source Explorer Snippets Console
Tomcat v9.0 Server at localhost [Started, Synchronized]


eclipse-workspace2 - http://localhost:8080/FirstJ2EEEProject/index.html - Eclipse IDE
File Edit Navigate Search Project Run Window Help
Quick Access
Project Explorer
FirstJ2EEEProject
Deployment Descriptor:
JAX-WS Web Services
Java Resources
JavaScript Resources
Referenced Libraries
build
WebContent
META-INF
WEB-INF
index.html
Servers
StudentServlet.java
index.html
Student Query Servlet
http://localhost:8080/FirstJ2EEEProject/StudentServlet?id=30772
Student id is 30772 Student name is null
==== 0 rows found =====
Outline
Task List
An outline is not available.
Markers Properties Servers Data Source Explorer Snippets Console
Tomcat v9.0 Server at localhost [Apache Tomcat] /usr/lib/jvm/java-11-openjdk-amd64/bin/java (05-Oct-2021, 1:21:01 PM)
INFO: At least one JAR was scanned for TLDs yet contained no TLDs. Enable debug logging for this logger for a complete list of JARs that were scanned but no
Oct 05, 2021 1:21:04 PM org.apache.coyote.AbstractProtocol start
INFO: Starting ProtocolHandler ["http-nio-8080"]
Oct 05, 2021 1:21:04 PM org.apache.catalina.startup.Catalina start
INFO: Server startup in [1301] milliseconds
Loading class `com.mysql.jdbc.Driver'. This is deprecated. The new driver class is `com.mysql.cj.jdbc.Driver'. The driver is automatically registered via the


eclipse-workspace2 - http://localhost:8080/FirstJ2EEEProject/index.html - Eclipse IDE
File Edit Navigate Search Project Run Window Help
Quick Access
Project Explorer
FirstJ2EEEProject
Deployment Descriptor:
JAX-WS Web Services
Java Resources
JavaScript Resources
Referenced Libraries
build
WebContent
META-INF
WEB-INF
index.html
Servers
StudentServlet.java
index.html
Student Query Servlet
http://localhost:8080/FirstJ2EEEProject/StudentServlet?id=19002
Student id is 19002 Student name is Karthik
==== 1 rows found =====
Outline
Task List
An outline is not available.
Markers Properties Servers Data Source Explorer Snippets Console
Tomcat v9.0 Server at localhost [Apache Tomcat] /usr/lib/jvm/java-11-openjdk-amd64/bin/java (05-Oct-2021, 1:21:01 PM)
INFO: At least one JAR was scanned for TLDs yet contained no TLDs. Enable debug logging for this logger for a complete list of JARs that were scanned but no
Oct 05, 2021 1:21:04 PM org.apache.coyote.AbstractProtocol start
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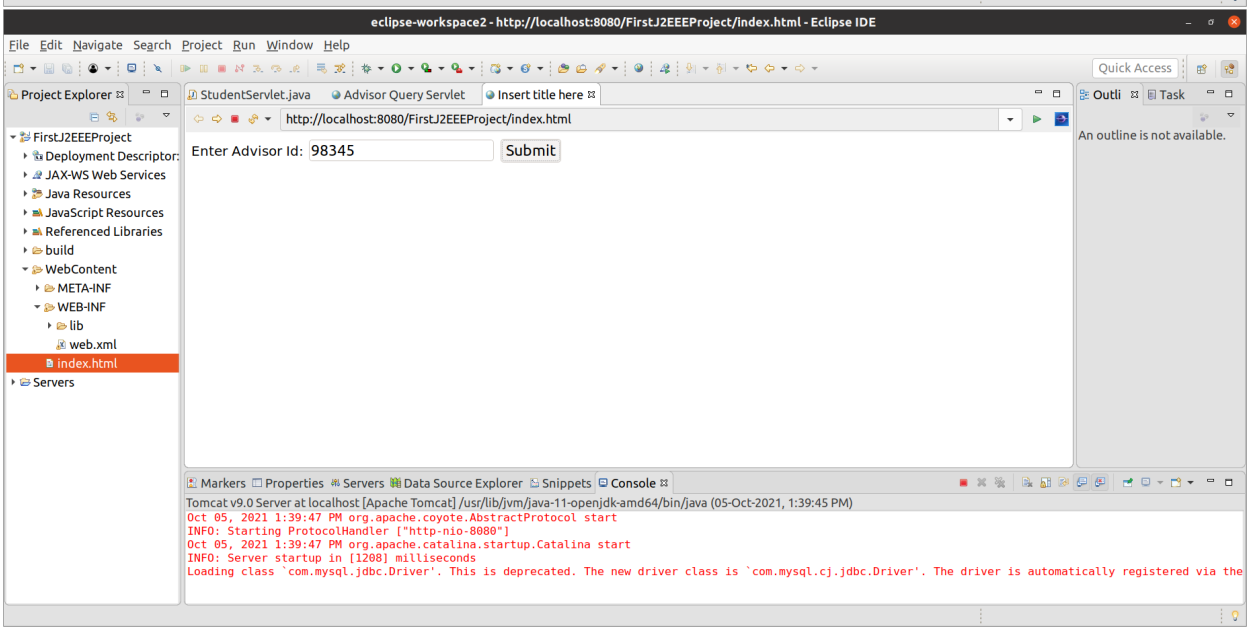
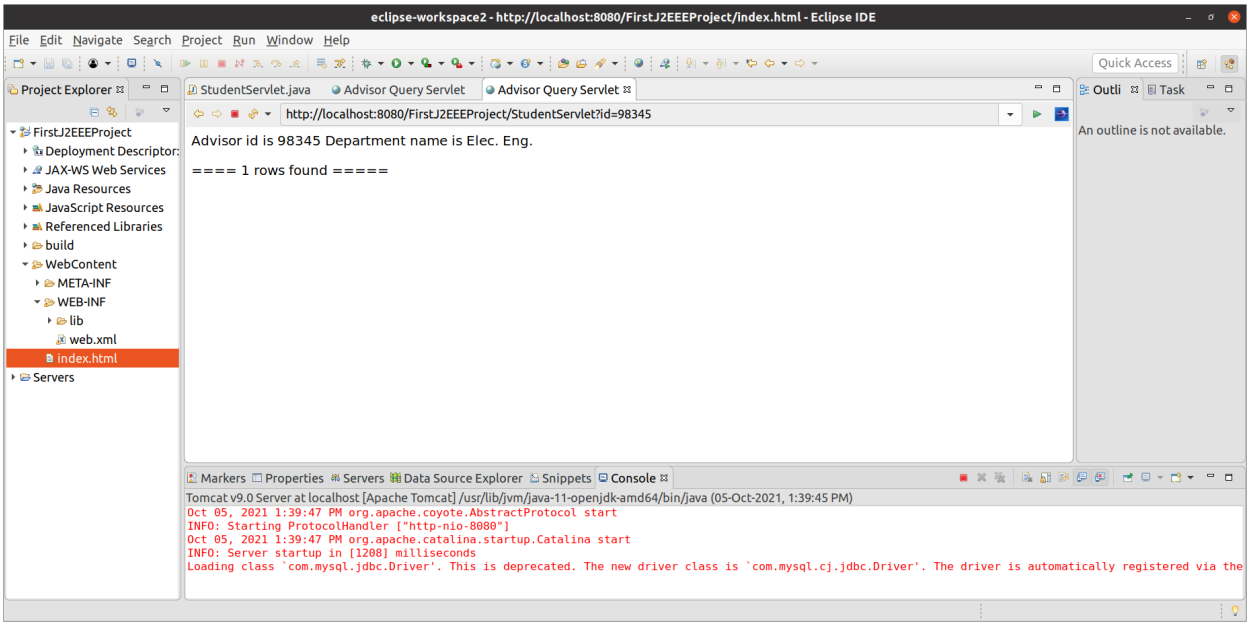

eclipse-workspace2 - http://localhost:8080/FirstJ2EEEProject/index.html - Eclipse IDE
File Edit Navigate Search Project Run Window Help
Quick Access
Project Explorer
FirstJ2EEEProject
Deployment Descriptor:
JAX-WS Web Services
Java Resources
JavaScript Resources
Referenced Libraries
build
WebContent
META-INF
WEB-INF
lib
web.xml
index.html
Servers
StudentServlet.java
Advisor Query Servlet
Insert title here
http://localhost:8080/FirstJ2EEEProject/index.html
Enter Advisor Id: 98345
Submit
Outli
Task
An outline is not available.
Markers Properties Servers Data Source Explorer Snippets Console
Tomcat v9.0 Server at localhost [Apache Tomcat] /usr/lib/jvm/java-11-openjdk-amd64/bin/java (05-Oct-2021, 1:39:45 PM)
Oct 05, 2021 1:39:47 PM org.apache.coyote.AbstractProtocol start
INFO: Starting ProtocolHandler ["http-nio-8080"]
Oct 05, 2021 1:39:47 PM org.apache.catalina.startup.Catalina start
INFO: Server startup in [1208] milliseconds
Loading class `com.mysql.jdbc.Driver'. This is deprecated. The new driver class is `com.mysql.cj.jdbc.Driver'. The driver is automatically registered via the


eclipse-workspace2 - http://localhost:8080/FirstJ2EEEProject/index.html - Eclipse IDE
File Edit Navigate Search Project Run Window Help
Quick Access
Project Explorer
FirstJ2EEEProject
Deployment Descriptor:
JAX-WS Web Services
Java Resources
JavaScript Resources
Referenced Libraries
build
WebContent
META-INF
WEB-INF
lib
web.xml
index.html
Servers
StudentServlet.java
Advisor Query Servlet
Advisor Query Servlet
http://localhost:8080/FirstJ2EEEProject/StudentServlet?id=98345
Advisor id is 98345 Department name is Elec. Eng.
==== 1 rows found =====
Outli
Task
An outline is not available.
Markers Properties Servers Data Source Explorer Snippets Console
Tomcat v9.0 Server at localhost [Apache Tomcat] /usr/lib/jvm/java-11-openjdk-amd64/bin/java (05-Oct-2021, 1:39:45 PM)
Oct 05, 2021 1:39:47 PM org.apache.coyote.AbstractProtocol start
INFO: Starting ProtocolHandler ["http-nio-8080"]
Oct 05, 2021 1:39:47 PM org.apache.catalina.startup.Catalina start
INFO: Server startup in [1208] milliseconds
Loading class `com.mysql.jdbc.Driver'. This is deprecated. The new driver class is `com.mysql.cj.jdbc.Driver'. The driver is automatically registered via the