

Assignment-6

Patel Shahil Manishbhai - 200010039

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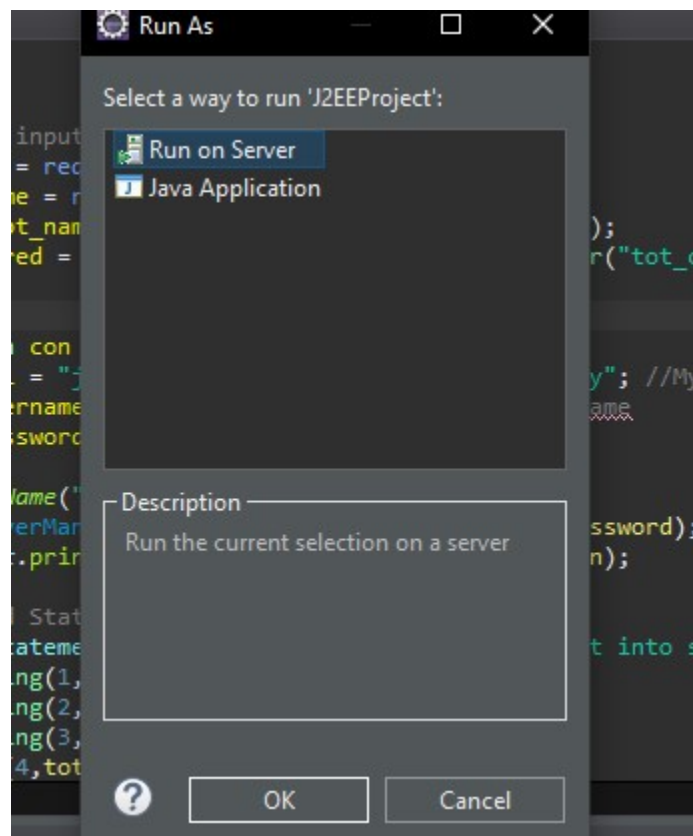
Part-A

- 1 We have uploaded a sample project on moodle(J2EEProject.zip). Extract and import the project into the eclipse workspace.
The handout(Handout.pdf) is also uploaded on how to import the project.

Implementation:

```
Connection con = null;
String url = "jdbc:mysql://localhost:3306/university"; //MySQL URL and followed by the database name
String username = "universityDB0039"; //MySQL username
String password = "Password"; //MySQL password

Class.forName("com.mysql.jdbc.Driver");
con = DriverManager.getConnection(url, username, password); //attempting to connect to MySQL database
System.out.println("Printing connection object "+con);
```



Run On Server

Select which server to use

How do you want to select the server?

☐ Choose an existing server

☒ Manually define a new server

Select the server that you want to use:

type filter text

Server	State
localhost	
Tomcat v8.5 Server at localhost	Started

Apache Tomcat v8.5 supports J2EE 1.2, 1.3, 1.4, and Java EE 5, 6, and 7 Web modules.

Columns...

☐ Always use this server when running this project

?

< Back

Next >

Finish

Cancel

Output:

Student Details

Student Id

Student Name

Student Department

Student Total Credits

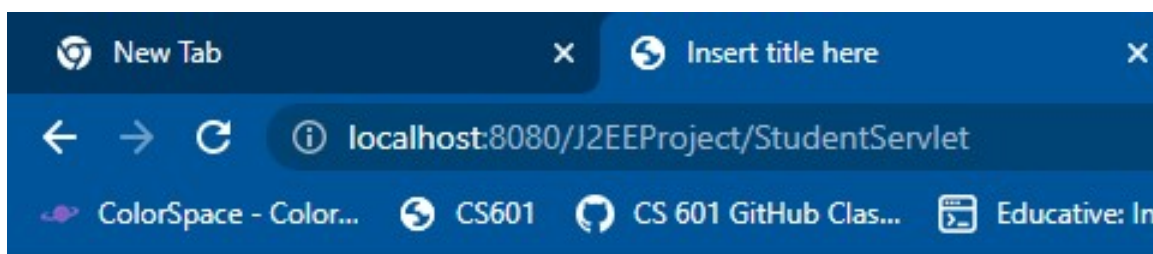
Submit

- 2 The project has been written using jsp/servlet. It takes student details from the jsp file and adds to the database using servlet. Then displays the success message on the jsp file. (Note : In the servlet code ,add your database name,mysql username and password correctly in the jdbc url).

Implementation:

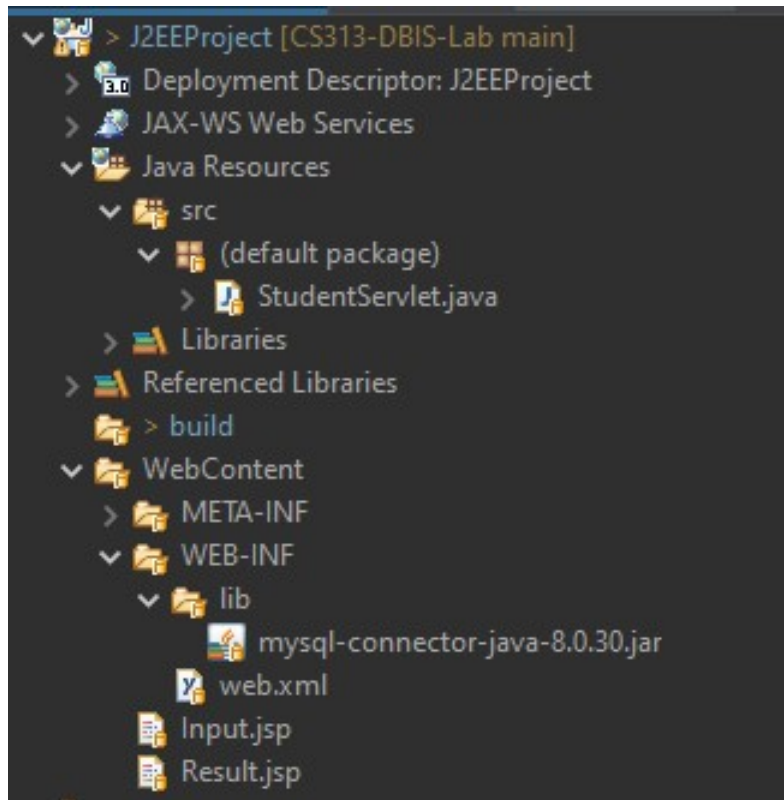
Student Details

Student Id	<input type="text" value="12312"/>
Student Name	<input type="text" value="Virat Kohli"/>
Student Department	<input type="text" value="Physics"/>
Student Total Credits	<input type="text" value="10"/>
<input type="button" value="Submit"/>	



-
- 3 Execute the project and understand the execution flow.

Folder Structure:



We save the *mysql-connector-java-8.0.30.jar* file in *WebContent* → *WEB-INF* → *lib* → *mysql-connector-java-8.0.30.jar*.

This jar file connects our servlet code with the mysql database created in our systems.

In our **StudentServlet.java** file we change our database username as well as password so that the connection is successful, then we configure the build path to add the *Tomcat* server.

After that we run the StudentServlet.java on run, which open the following form.

Student Details

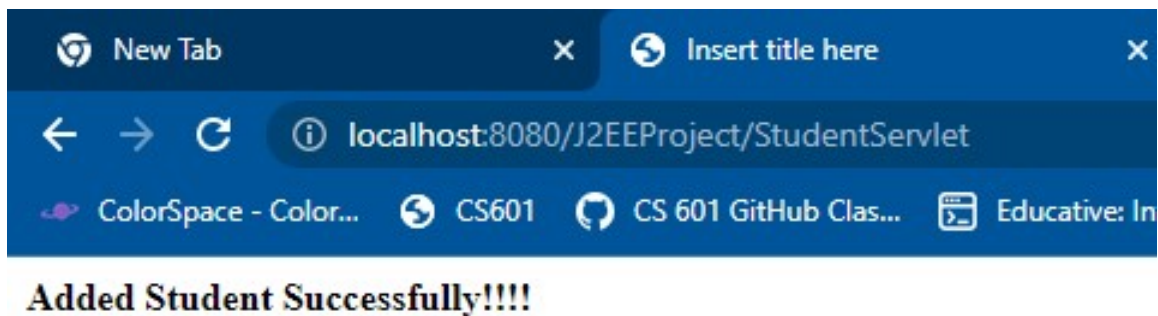
Student Id	<input type="text"/>
Student Name	<input type="text"/>
Student Department	<input type="text"/>
Student Total Credits	<input type="text"/>
<input type="button" value="Submit"/>	

We fill the form using some values as follows:

Student Details

Student Id	<input type="text" value="12312"/>
Student Name	<input type="text" value="Virat Kohli"/>
Student Department	<input type="text" value="Physics"/>
Student Total Credits	<input type="text" value="10"/>
<input type="button" value="Submit"/>	

We will get the following output:



Part-B

4 Task-1

Creating database and tables:

```
MariaDB [library]> CREATE TABLE student (  
-> student_id int(5),  
-> student_name varchar(20),  
-> dept_name varchar(20),  
-> student_year char(4),  
-> semester varchar(15),  
-> PRIMARY KEY (student_id)  
-> );  
Query OK, 0 rows affected (0.153 sec)
```

```

MariaDB [library]> CREATE TABLE issue (
->     student_id int(5),
->     book_id int(5),
->     issue_date varchar(12),
->     return_date varchar(12),
->     PRIMARY KEY (student_id, book_id, issue_date, return_date),
->     FOREIGN KEY (student_id) REFERENCES student(student_id),
->     FOREIGN KEY (book_id) REFERENCES books(book_id)
-> );
Query OK, 0 rows affected (0.226 sec)

```

```

MariaDB [library]> CREATE TABLE issue (
->     student_id int(5),
->     book_id int(5),
->     issue_date varchar(12),
->     return_date varchar(12),
->     PRIMARY KEY (student_id, book_id, issue_date, return_date),
->     FOREIGN KEY (student_id) REFERENCES student(student_id),
->     FOREIGN KEY (book_id) REFERENCES books(book_id)
-> );
ERROR 1050 (42S01): Table 'issue' already exists

```

```

MariaDB [library]> show tables;
+-----+
| Tables_in_library |
+-----+
| books              |
| issue              |
| student            |
+-----+
3 rows in set (0.001 sec)

```

5 Task-2

Adding tuples

```

MariaDB [library]> INSERT INTO books VALUES (11111,'The Silent Patient','Thriller','Alex Michaelides'),
->      (22222,'Do Epic Shit','Finance','Ankur Warikoo'),
->      (33333,'Rich Dad Poor Dad','Finance','Robert Kiyosaki'),
->      (44444,'The Intelligent Investor','Finance','Benjamin Graham'),
->      (55555,'The Psychology of Money','Finance','Morgan Housel'),
->      (66666,'Malgudi Days','Drama','R.K. Narayan');
Query OK, 6 rows affected, 2 warnings (0.119 sec)

```

book_id	title	category	author
11111	The Silent Patient	Thriller	Alex Michaelides
22222	Do Epic Shit	Finance	Ankur Warikoo
33333	Rich Dad Poor Dad	Finance	Robert Kiyosaki
44444	The Intelligent Inves	Finance	Benjamin Graham
55555	The Psychology of Mo	Finance	Morgan Housel
66666	Malgudi Days	Drama	R.K. Narayan

6 rows in set (0.001 sec)


```

MariaDB [library]> INSERT INTO student VALUES (20001,'Shahil','CSE',2020,'Autumn'),
-> (20002,'Rajat','CSE',2020,'Fall'),
-> (20003,'Shivam T.','EE',2020,'Autumn'),
-> (20004,'Shivam K.','EE',2020,'Spring'),
-> (20005,'Nitin','EE',2021,'Spring'),
-> (20006,'Rajnish','EE',2016,'Summer'),
-> (20007,'Pranav','CSE',2020,'Spring');
Query OK, 7 rows affected (0.213 sec)
Records: 7 Duplicates: 0 Warnings: 0

```

```

MariaDB [library]> SELECT * FROM student;
+-----+-----+-----+-----+-----+
| student_id | student_name | dept_name | student_year | semester |
+-----+-----+-----+-----+-----+
| 20001 | Shahil | CSE | 2020 | Autumn |
| 20002 | Rajat | CSE | 2020 | Fall |
| 20003 | Shivam T. | EE | 2020 | Autumn |
| 20004 | Shivam K. | EE | 2020 | Spring |
| 20005 | Nitin | EE | 2021 | Spring |
| 20006 | Rajnish | EE | 2016 | Summer |
| 20007 | Pranav | CSE | 2020 | Spring |
+-----+-----+-----+-----+-----+
7 rows in set (0.001 sec)

```

```

MariaDB [library]> INSERT INTO issue VALUES (20001,11111,'04/09/2022','10/11/2022'),
-> (20002,11111,'08/09/2022','20/12/2022'),
-> (20003,66666,'16/02/2022','18/03/2022'),
-> (20003,55555,'20/01/2022','11/05/2022'),
-> (20001,66666,'22/05/2022','04/06/2022'),
-> (20002,22222,'21/03/2022','08/05/2022'),
-> (20002,33333,'11/03/2022','18/04/2022'),
-> (20002,44444,'20/10/2022','18/11/2022'),
-> (20001,22222,'30/04/2022','23/05/2022'),
-> (20002,55555,'28/02/2022','08/03/2022'),
-> (20005,11111,'03/01/2022','04/01/2022'),
-> (20005,66666,'22/09/2022','11/11/2022'),
-> (20006,55555,'14/01/2022','28/01/2022'),
-> (20006,11111,'15/04/2022','14/05/2022'),
-> (20006,33333,'22/11/2022','19/12/2022'),
-> (20004,66666,'20/11/2022','01/12/2022'),
-> (20004,33333,'04/01/2022','15/01/2022');
Query OK, 17 rows affected (0.089 sec)
Records: 17 Duplicates: 0 Warnings: 0

```

```
MariaDB [library]> Select * From issue;
+-----+-----+-----+-----+
| student_id | book_id | issue_date | return_date |
+-----+-----+-----+-----+
| 20001 | 11111 | 04/09/2022 | 10/11/2022 |
| 20001 | 22222 | 30/04/2022 | 23/05/2022 |
| 20001 | 66666 | 22/05/2022 | 04/06/2022 |
| 20002 | 11111 | 08/09/2022 | 20/12/2022 |
| 20002 | 22222 | 21/03/2022 | 08/05/2022 |
| 20002 | 33333 | 11/03/2022 | 18/04/2022 |
| 20002 | 44444 | 20/10/2022 | 18/11/2022 |
| 20002 | 55555 | 28/02/2022 | 08/03/2022 |
| 20003 | 55555 | 20/01/2022 | 11/05/2022 |
| 20003 | 66666 | 16/02/2022 | 18/03/2022 |
| 20004 | 33333 | 04/01/2022 | 15/01/2022 |
| 20004 | 66666 | 20/11/2022 | 01/12/2022 |
| 20005 | 11111 | 03/01/2022 | 04/01/2022 |
| 20005 | 66666 | 22/09/2022 | 11/11/2022 |
| 20006 | 11111 | 15/04/2022 | 14/05/2022 |
| 20006 | 33333 | 22/11/2022 | 19/12/2022 |
| 20006 | 55555 | 14/01/2022 | 28/01/2022 |
+-----+-----+-----+-----+
17 rows in set (0.001 sec)
```

6 Task-3

Output:

[←](#) [→](#) [↻](#)

localhost:8080/Project-PartB/IssueServlet

Book issued successfully!!!!

[←](#) [→](#) [↻](#)

localhost:8080/Project-PartB/AddServlet

Book is added successfully!!!!

[←](#) [→](#) [↻](#)

localhost:8080/Project-PartB/

[Add a book](#) [Issue a book](#)

Issue Details

Student Id

Book Id

Issue Date

Issue

Book Details

Book Id

Title

Category

Author

Add