Assignment-5 CS313

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1 Part A

1.1 Problem 1

Using the handout (JDBC Handout.pdf) which is uploaded on moodle, try out the java+jdbc code.

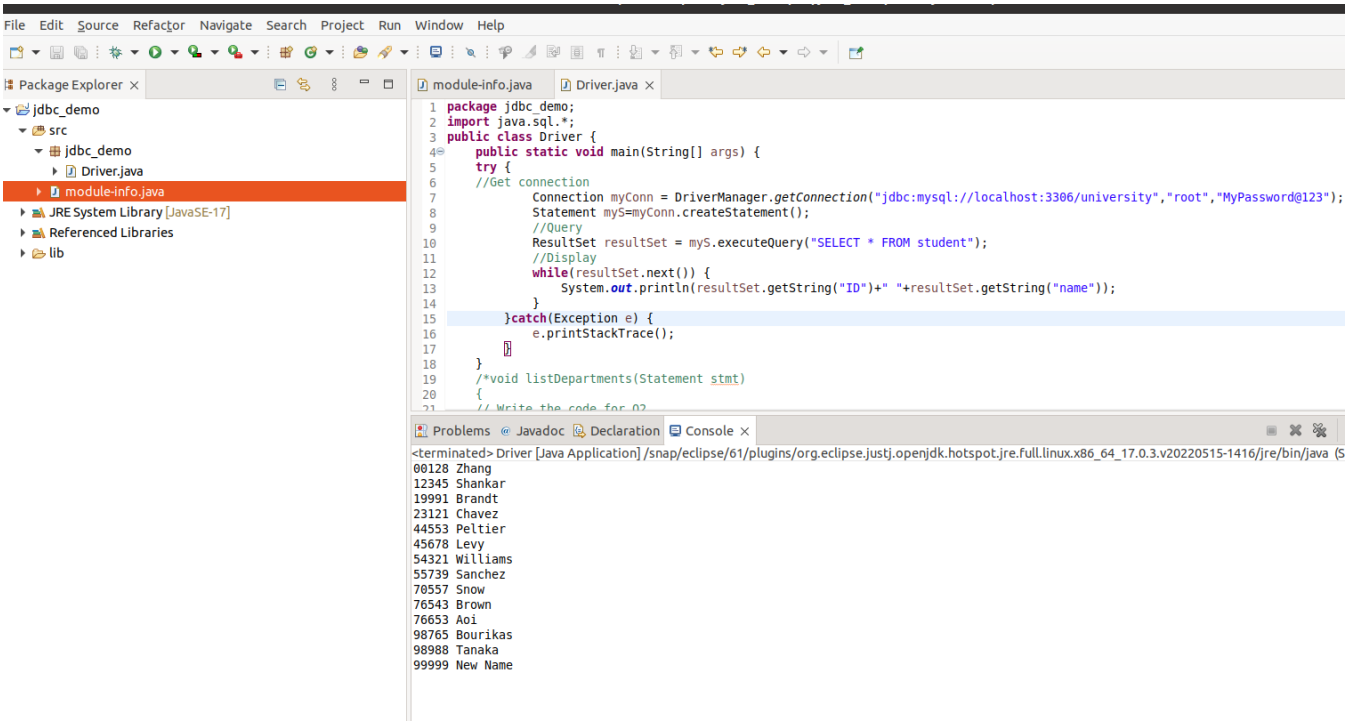

Figure 1: Program Output

1.2 Problem 2

Modify the code given to you to list departments (in asc order) and the total number of students and instructors they have. A template has been made in the provided source code(Driver.java), you need to fill up the template.

```
WITH S_count(dname, s_count) AS
  (SELECT S.dept_name, count(*)
  FROM student S
  GROUP BY S.dept_name),
I_count(dname, i_count) AS
  (SELECT I.dept_name, count(*)
  FROM instructor I
  GROUP BY I.dept_name)
SELECT *
FROM I_count LEFT OUTER JOIN S_count
ON I_count.dname=S_count.dname
UNION
SELECT *
FROM I_count RIGHT OUTER JOIN S_count
ON I_count.dname=S_count.dname
```

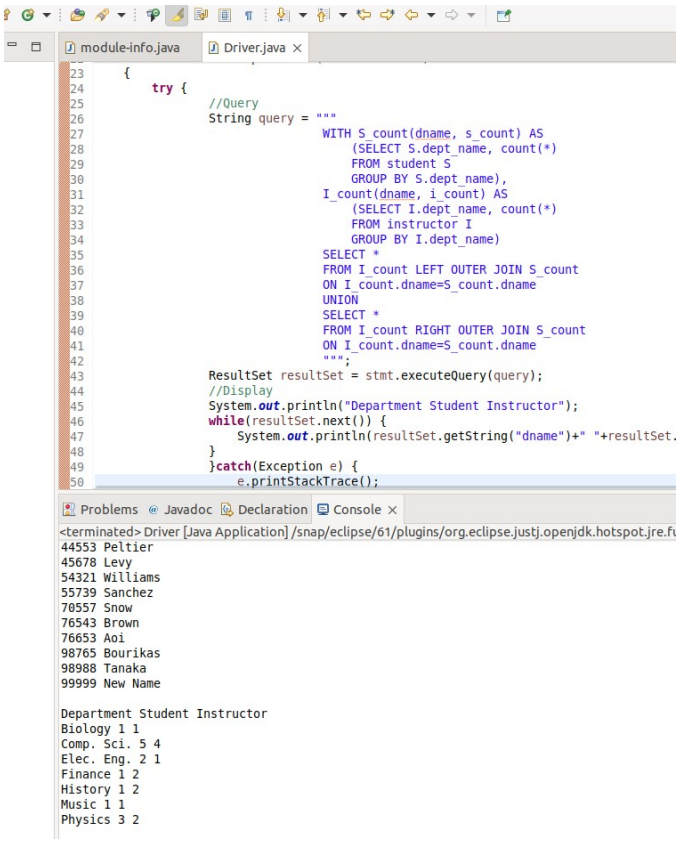

Figure 2: Program Output

1.3 Problem 3

Do the following preparedStatement : For a given building, find classrooms (room_no) with capacity more than 30 and in which no courses are scheduled this year and semester. A template has been made in the provided source code(Driver.java), you need to fill up the template.

```
select distinct class.room_number
from classroom class natural join section sec
where capacity>30 and class.room_number NOT IN
(select room.room_number from classroom room
natural join section sect
where capacity>30 and sect.semester='Fall' and sect.year=2009);
```

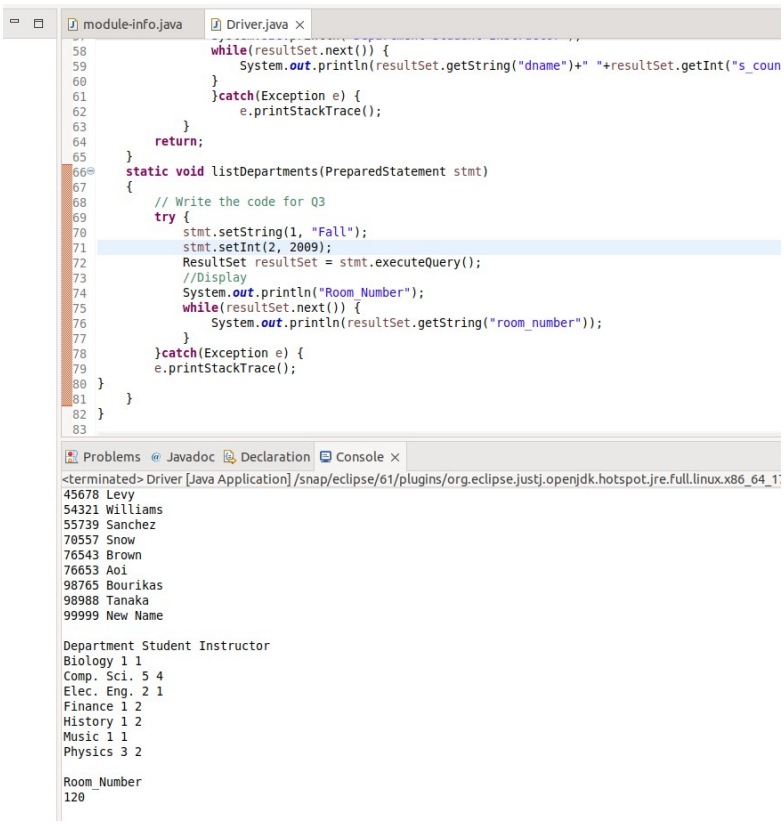

Figure 3: Program Output

2 Part 2

Design a new html page to take advisor id as input. Write a servlet to display the department to which the advisor belongs using the Java and J2EE program. Output should contain advisor id and department name.

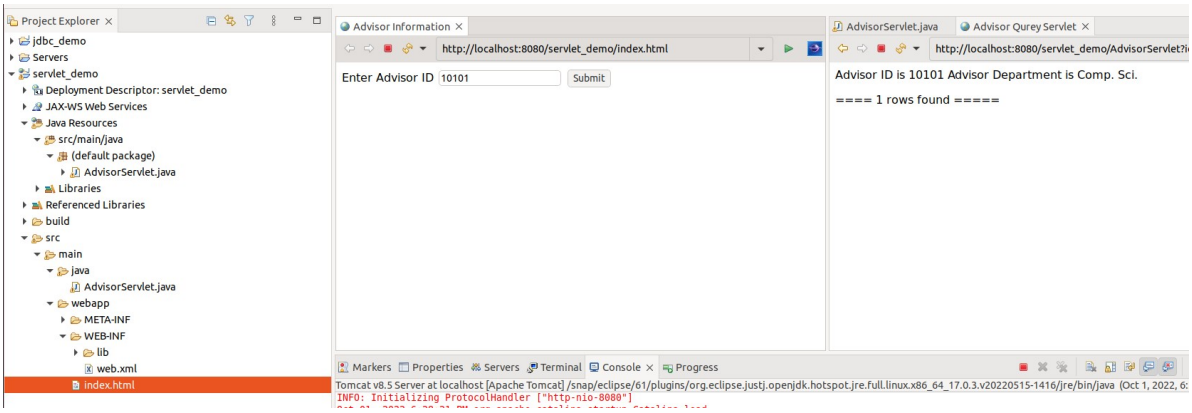

Figure 4: Servlet Output