Information System Management Lab
BCOM 307

Assignment #6

Submitted by:

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Academic Year: 2020-21

Semester: Vth

Assignment No.6
Unit No:

Course/Subject Code: BCOM 307 **Subject Title: Information System Management Lab**
Issue Date: **Last Date of Submission:**

Instructions for Students:

1. **All Questions are Compulsory.**
2. The student should attach proper cover page for each assignment clearly mentioning theAssignment No.
3. Each assignment should be prepared by the student individually with proper explaination andscreenshots.
4. A4 size ruled sheets should be used for the assignment.
5. Assignment pages should be serially numbered at the bottom of page.

During online education mode, upload scanned copy of the complete assignment including cover page latest by due date.

<table>
<tr><th>QuestionNo.</th><th>Question</th><th>CO No.</th></tr>
<tr><td>1</td><td>Create a table called ‘Person’ that contains four columns : PersonID, LastName, FirstName, and Age, and create another table ‘Orders’ with columns - OrderID, OrderNumber and PersonID.

<table>
<tr><th>Person ID (Primary Key)</th><th>LastName (Not Null)</th><th>FirstName (Not Null)</th><th>Age (Not Null)</th></tr>
<tr><td>1</td><td>Hansen</td><td>Ola</td><td>30</td></tr>
<tr><td>2</td><td>Svendson</td><td>Tove</td><td>23</td></tr>
<tr><td>3</td><td>Petterson</td><td>Karl</td><td>20</td></tr>
</table>
<table>
<tr><th>Order ID (Primary Key)</th><th>Order Number (Not Null)</th><th>Person ID (Foreign Key)</th></tr>
<tr><td>1</td><td>77895</td><td>3</td></tr>
<tr><td>2</td><td>44678</td><td>3</td></tr>
<tr><td>3</td><td>22456</td><td>2</td></tr>
<tr><td>4</td><td>24562</td><td>1</td></tr>
</table>
</td><td>CO1</td></tr>
</table>

2	Insert values in ‘Order’ table with personID = 4.	**CO 1**
3	Delete from table ‘Orders’ where personID = 1;	
4	Delete from table ‘Persons’ where personID = 1;	

ASSIGNMENT 6 - FOREIGN KEY CONSTRAINT

Task 1 : Create a table called 'Person' that contains four columns : PersonID, LastName, FirstName, and Age, and create another table 'Orders' with columns - OrderID, OrderNumber and PersonID.

Person ID (Primary Key)	LastName (Not Null)	FirstName (Not Null)	Age (Not Null)
1	Hansen	Ola	30
2	Svendson	Tove	23
3	Petterson	Karl	20

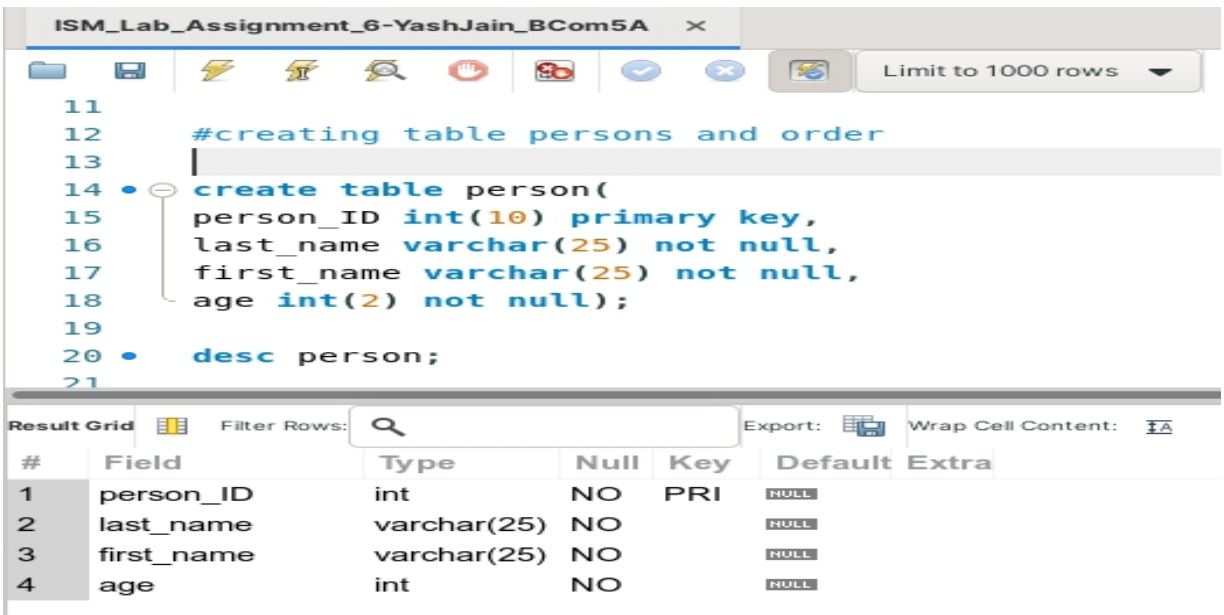
Order ID (Primary Key)	Order Number (Not Null)	Person ID (Foreign Key)
1	77895	3
2	44678	3
3	22456	2
4	24562	1

The following task is completed using the **'create table'** command, along with the **'primary key'** constraint, the **'not null'** constraint and the **'foreign key'** constraint. The 'Not Null' constraint, when put on a column within a table definition, tells us that the values of that column cannot be left empty while inputing values.The syntax for not null constraint (to be used in table definition) is:

```
column_name datatype not null,
```

Foreign Key represents relationship between tables. A foreign key is a column (or a group of columns) whose values are derived from the primary key / unique key of some other table. The syntax for foreign key (to be used in creating table after all the columns are defined) is:

```
foreign key (column name from foreign table) references primary-table-name(primary key of primary table),
```



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Limit to 1000 rows

```
21
22 • create table orders(
23    order_ID int(10) primary key,
24    order_number int(10) not null,
25    person_ID int(10) not null,
26    foreign key (person_ID) references person(person_ID));
27
28 •  desc orders;
29
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

#	Field	Type	Null	Key	Default	Extra
1	order_ID	int	NO	PRI	NULL	
2	order_number	int	NO		NULL	
3	person_ID	int	NO	MUL	NULL	

Now, to insert the given values in the tables, we will use the **'insert into'** command.

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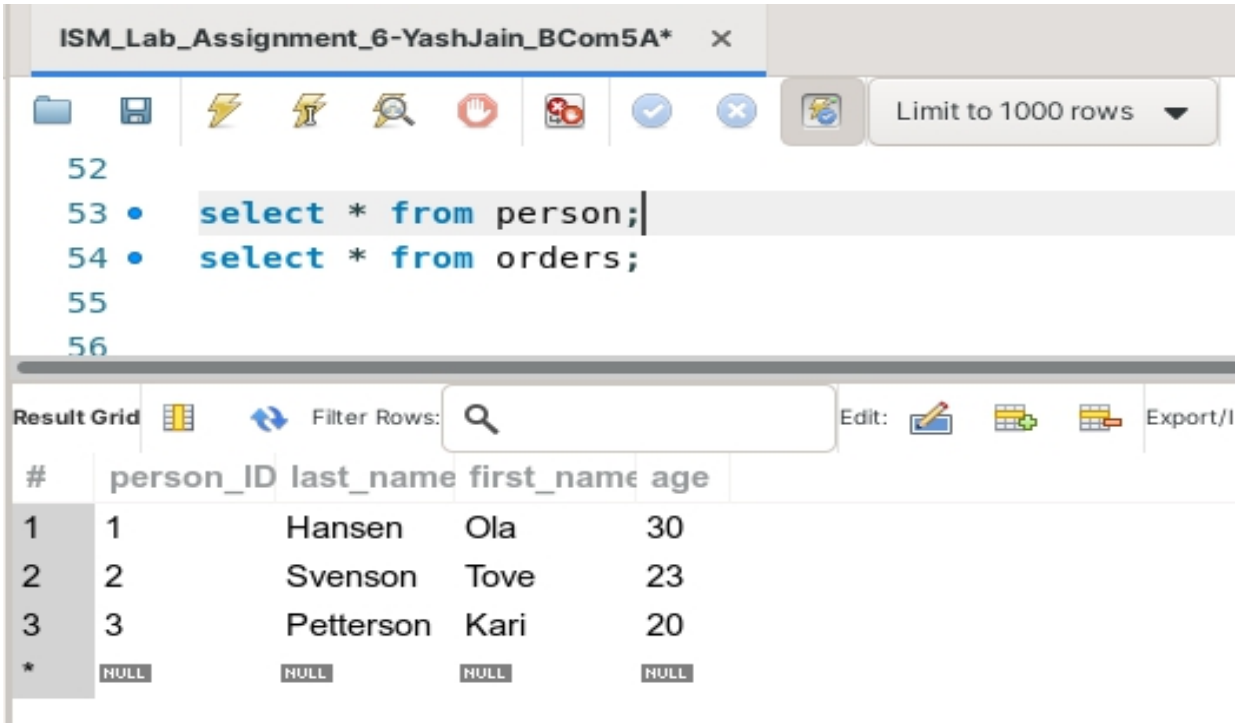
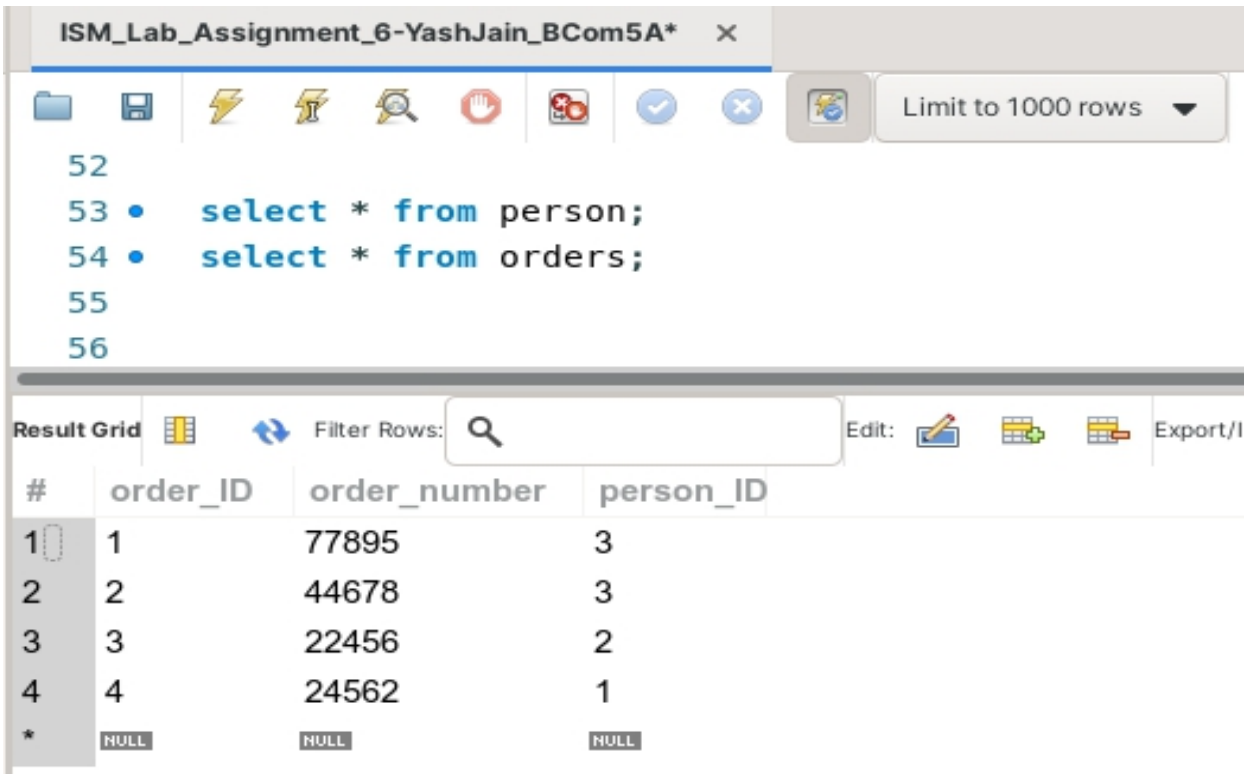
Limit to 1000 rows

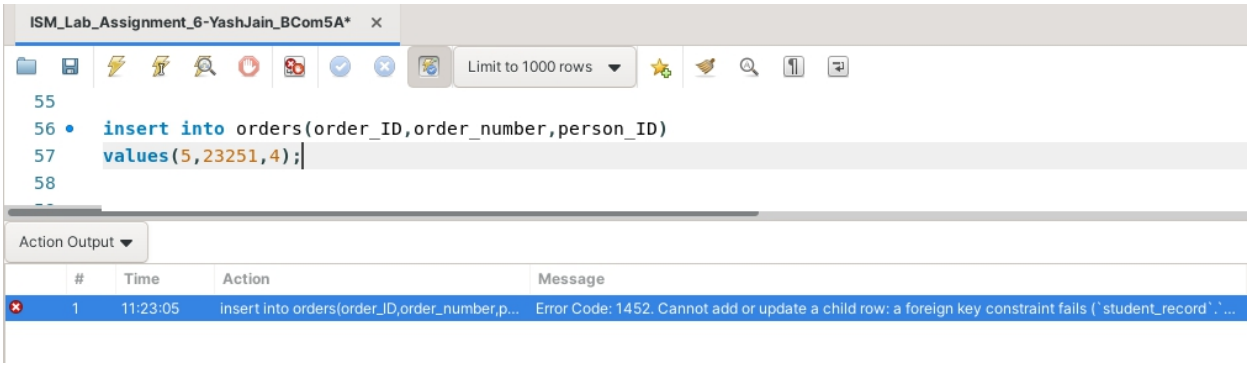
```
31
32 • insert into person(person_ID,last_name,first_name,age)
33   values(1,'Hansen','Ola',30);
34
35 • insert into person(person_ID,last_name,first_name,age)
36   values(2,'Svenson','Tove',23);
37
38 • insert into person(person_ID,last_name,first_name,age)
39   values(3,'Petterson','Kari',20);
40
41 • insert into orders(order_ID,order_number,person_ID)
42   values(1,77895,3);
43
44 • insert into orders(order_ID,order_number,person_ID)
45   values(2,44678,3);
46
47 • insert into orders(order_ID,order_number,person_ID)
48   values(3,22456,2);
49
50 • insert into orders(order_ID,order_number,person_ID)
51   values(4,24562,1);
```





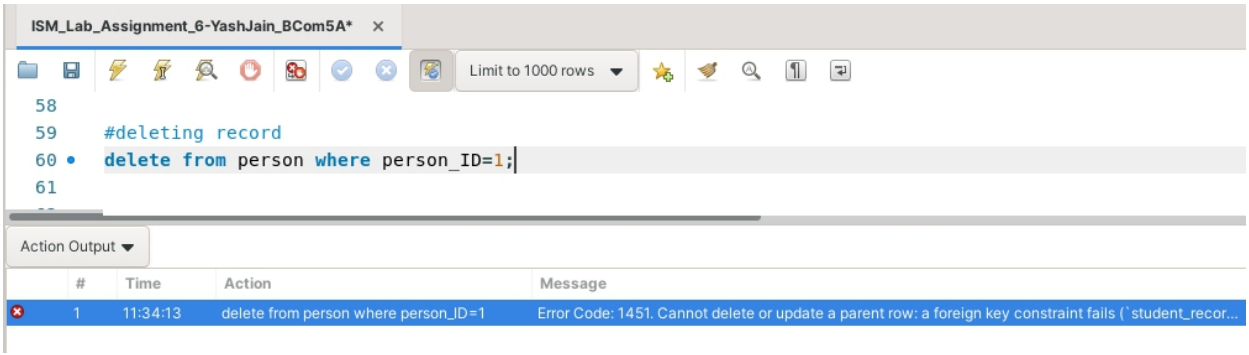
Task 2: Insert values in 'Order' table with personID = 4.

The given task can be completed using the **'insert into'** command. Note that when you will enter values, **it will show an error**, 'Foreign key constraint fails'. This is because the 'personID' column is a foreign key linked to the column with the same name in the table 'Person'. Hence, it will only accept the values present in the personID of the 'person' table.

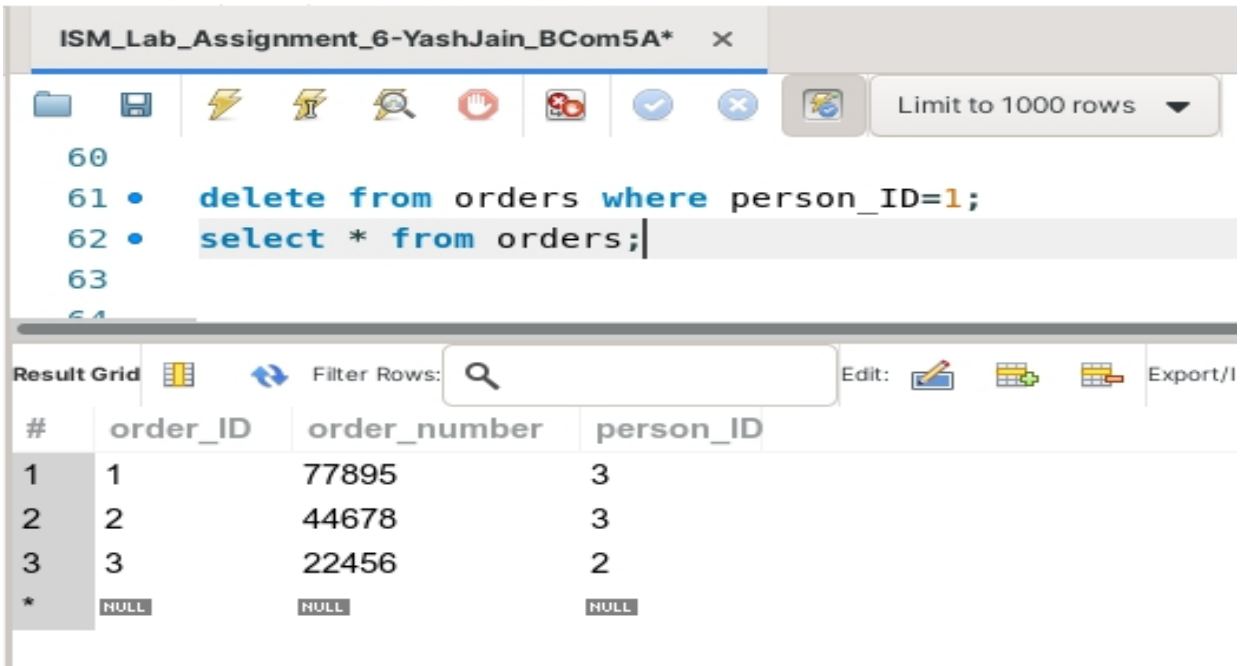


Task 3: Delete from table 'Orders' where personID = 1;

This task can be completed by using the command **'delete'**. However, **if we try to delete the record from the table 'persons' first, then we won't be able to do it. It will show an error, 'Foreign key constraint fails'.**



This is because since both the tables are linked via the foreign key column, hence **first we have to delete that record from the foreign table, only then we will be able to delete it from the primary table**. This is depicted below.



Task 4: Delete from table 'Persons' where personID = 1;

This task can be completed using the **'delete'** command. Now, since the record is already deleted from the foreign table, we will be able to delete it from the primary table as well.