

Name → Laxman Kumar Vashist

Class → BTech. 2nd Year { E }

University RollNo. → 191500429

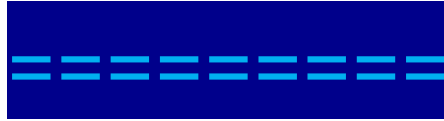
Class RollNo. → '37'

Subject → Database Management
Systems Lab

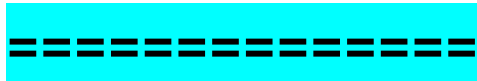
Subject Code → BCSC 0802

Subject Teacher → MRS.
GUNJAN BHARTIYA

TABLES



1. Department →



Code →



```
SQL Worksheet
```

```
1 create table Department1(  
2 Deptno number(3) primary key ,  
3 Dname varchar2(20) unique ,  
4 Location varchar2(20) not null check(location in ('Delhi','Pune','Agra')));
```

Table created.

2.Employee➡

=====

Code➡

=====

FeedbackHelplaxman.vashist_cs19@gla.ac.in

SQL WorksheetClearFindActionsSaveRun

```
1 create table Employee(
2 Empno varchar2(5) primary key check(Empno like 'E%') ,
3 Ename varchar2(20) unique ,
4 Designation varchar2(20) not null ,
5 Salary number(10) default 25000 check(Salary between 15000 and 50000) ,
6 DoB date not null ,
7 Dno number(3) ,
8 constraints fk_foreign key(Dno) references Department1(Deptno) );
```

Table created.

3.Candidate➡

=====

Code➡

=====

FeedbackHelplaxman.vashist_cs19@gla.ac.in

SQL WorksheetClearFindActionsSaveRun

```
1 create table Candidate(
2 Candidate_ID number(6) primary key,
3 Candidate_Name Varchar2(20) not null,
4 Candidate_Email varchar2(30) unique check(Candidate_Email like '%@%.%'),
5 Candidate_Dept varchar2(3) Default 'HR',
6 Manager_ID number(6) references Candidate(Candidate_ID));
```

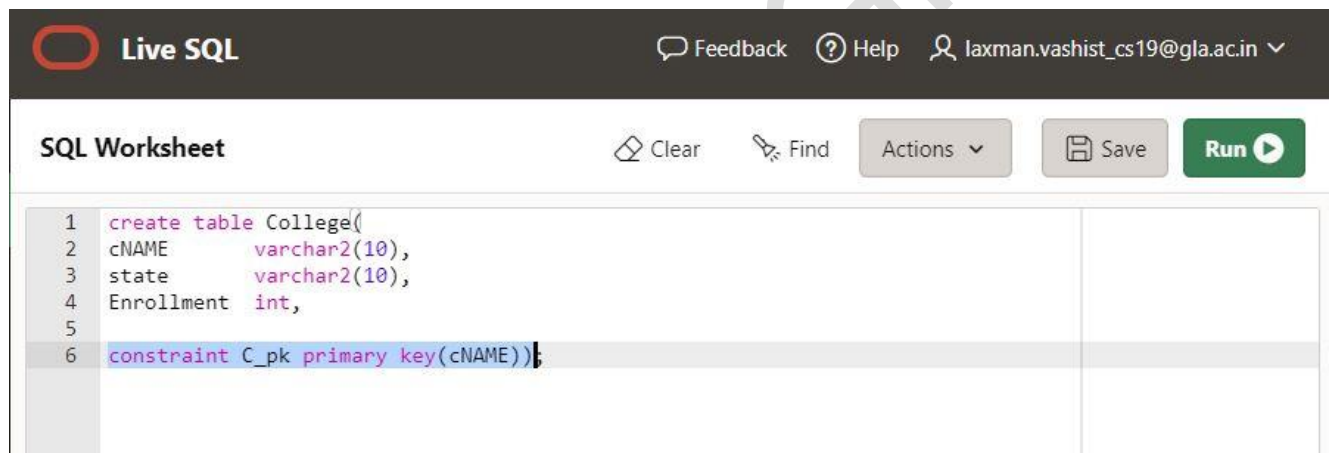
Table created.

2. QURIES

1. Add cName as Primary key in College.

Code➔

=====



Live SQL

Feedback Help laxman.vashist_cs19@gla.ac.in

SQL Worksheet Clear Find Actions Save Run

```
1 create table College(  
2 cNAME varchar2(10),  
3 state varchar2(10),  
4 Enrollment int,  
5  
6 constraint C_pk primary key(cNAME));
```

2. Add sID as Primarykey in Student.

Code➔

=====



Live SQL

Feedback Help laxman.vashist_cs19@gla.ac.in

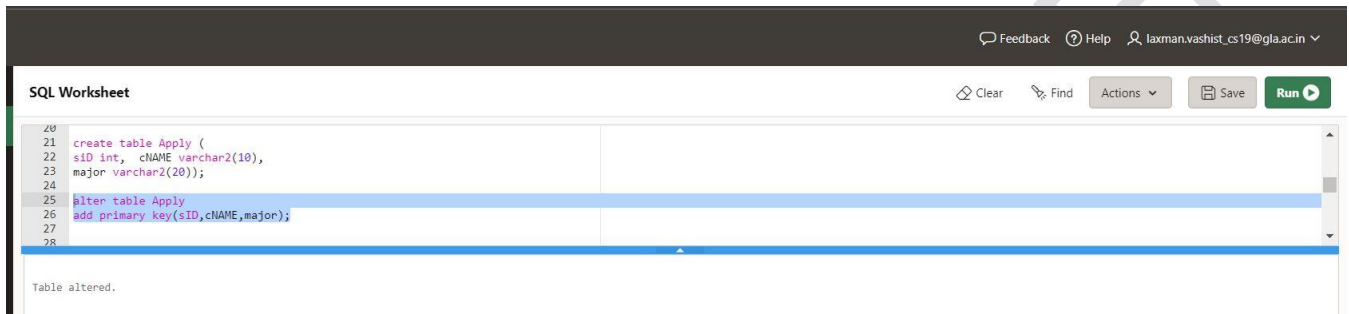
SQL Worksheet Clear Find Actions Save Run

```
1 create table Student(  
2 sID int, sNAME varchar2(10),  
3 GPA number(2,1), sizeHS int);  
4  
5  
6 alter table Student  
7 add primary key(sID);
```

3. Add sID, cName, major as Primarykey in Apply.

Code➔

=====



The screenshot shows an SQL Worksheet interface with a dark header bar containing 'Feedback', 'Help', and a user profile 'laxman.vashist_cs19@glia.ac.in'. Below the header, there are buttons for 'Clear', 'Find', 'Actions', 'Save', and 'Run'. The main area contains a code editor with the following SQL code:

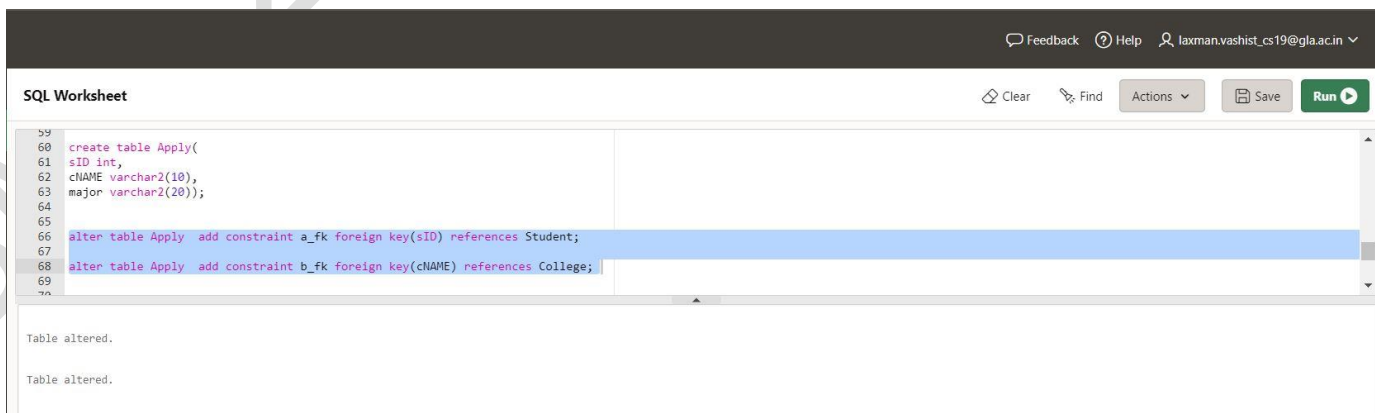
```
20  
21 create table Apply (  
22 sID int, cNAME varchar2(10),  
23 major varchar2(20));  
24  
25 alter table Apply  
26 add primary key(sID,cNAME,major);  
27  
28
```

Below the code editor, a status message reads 'Table altered.'

4. Make sID in Applyforeignkey referring table student and cName referring table college.

Code➔

=====



The screenshot shows an SQL Worksheet interface with a dark header bar containing 'Feedback', 'Help', and a user profile 'laxman.vashist_cs19@glia.ac.in'. Below the header, there are buttons for 'Clear', 'Find', 'Actions', 'Save', and 'Run'. The main area contains a code editor with the following SQL code:

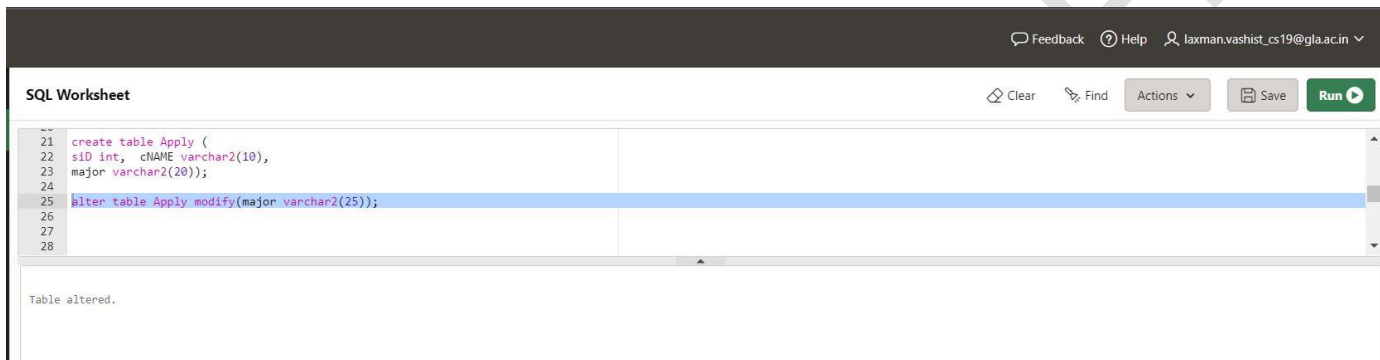
```
59  
60 create table Apply(  
61 sID int,  
62 cNAME varchar2(10),  
63 major varchar2(20));  
64  
65  
66 alter table Apply add constraint a_fk foreign key(sID) references Student;  
67  
68 alter table Apply add constraint b_fk foreign key(cNAME) references College;  
69  
70
```

Below the code editor, two status messages are visible: 'Table altered.' and 'Table altered.'

5. Increase data type size of major from 20 to 25.

Code➔

=====



The screenshot shows an SQL Worksheet interface. The code editor contains the following SQL statements:

```
21 create table Apply (  
22   sid int, cNAME varchar2(10),  
23   major varchar2(20));  
24  
25 alter table Apply modify(major varchar2(25));  
26  
27  
28
```

The output area below the code editor displays the message: "Table altered."

6. Add a new column decision in the Apply table keeping a constraint of not null for this column with data type varchar2(3).

Code➔

=====



The screenshot shows an SQL Worksheet interface. The code editor contains the following SQL statements:

```
21 create table Apply (  
22   sid int, cNAME varchar2(10),  
23   major varchar2(20));  
24  
25 alter table Apply add(decision varchar2(3) not null);  
26  
27  
28
```

The output area below the code editor displays the message: "Table altered."

7. Change data type of decision in Apply to char(1).

Code →

=====

```
20  
21 create table Apply (  
22 sID int, cNAME varchar2(10),  
23 major varchar2(20));  
24  
25 alter table Apply modify(decision char(1));  
26
```

Table altered.

8. Drop foreign key on column name cName from Apply table.

Code →

=====

```
59  
60 create table Apply(  
61 sID int,  
62 cNAME varchar2(10),  
63 major varchar2(20));  
64  
65 alter table Apply add constraint b_fk foreign key(cNAME) references College;  
66  
67 alter table Apply drop constraint b_fk;  
68  
69  
70
```

Table altered.

9. Remove column sizeHS from Student table.

Code →

=====



The screenshot shows an SQL Worksheet interface. The top bar includes a feedback icon, a help icon, and a user profile icon with the email laxman.vashist_cs19@glia.ac.in. Below the bar, the worksheet title is "SQL Worksheet". On the right side of the worksheet, there are buttons for "Clear", "Find", "Actions", "Save", and a green "Run" button with a play icon. The main area contains a code editor with the following SQL code:

```
1 create table Student(  
2 SID int,  
3 SNAME varchar2(10),  
4 GPA number(2,1), sizeHS int);  
5  
7 alter table Student drop column sizeHS;  
8  
9
```

Below the code editor, the output area displays the message "Table altered."

10. Drop primary key from College.

Code →

=====



The screenshot shows an SQL Worksheet interface. The top bar includes a feedback icon, a help icon, and a user profile icon with the email laxman.vashist_cs19@glia.ac.in. Below the bar, the worksheet title is "SQL Worksheet". On the right side of the worksheet, there are buttons for "Clear", "Find", "Actions", "Save", and a green "Run" button with a play icon. The main area contains a code editor with the following SQL code:

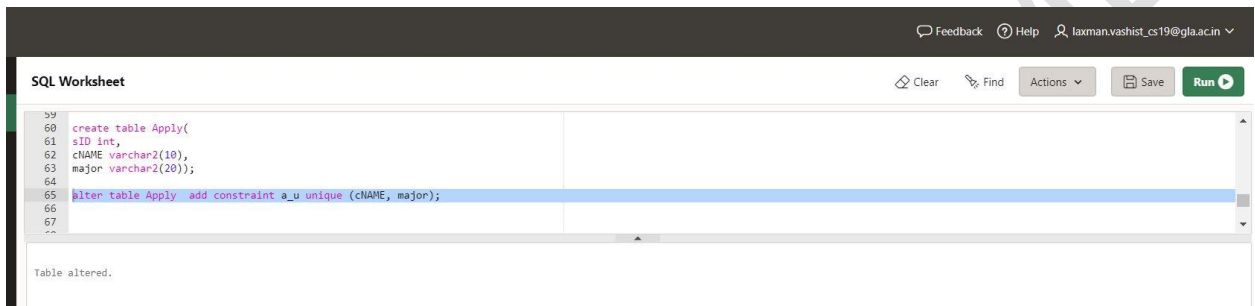
```
41  
42 create table College(  
43 cNAME varchar2(10),  
44 state varchar2(10),  
45 Enrollment int,  
46 constraint C_pk primary key(cNAME));  
47  
48 alter table College drop constraint C_pk;  
49  
50  
51
```

Below the code editor, the output area displays the message "Table altered."

11. Make cName, major unique pairwise such as Stanford CS, Stanford EE.

Code →

=====




```
59 create table Apply(  
60 sID int,  
61 cNAME varchar2(10),  
62 major varchar2(20));  
64  
65 alter table Apply add constraint a_u unique (cNAME, major);  
66  
67
```

Table altered.

12. Add cName as Foreign Key in Apply table referring table College using on delete cascade.

Code →

=====



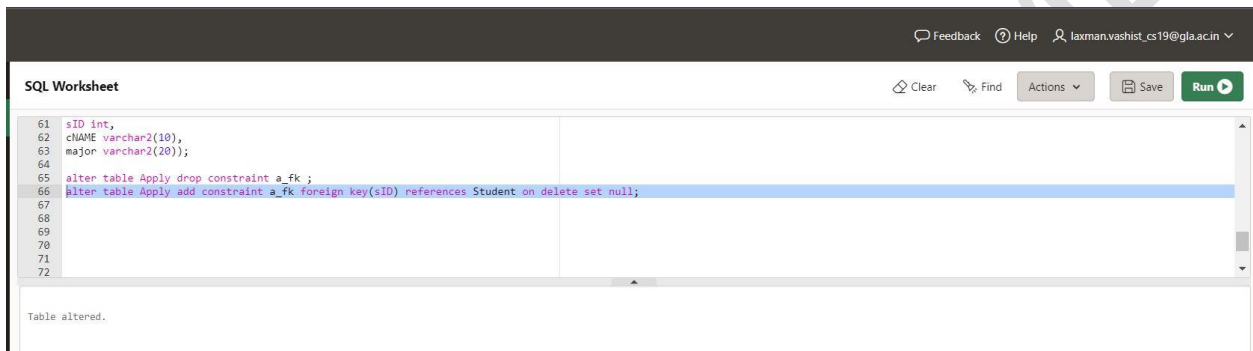
```
59 create table Apply(  
60 sID int,  
61 cNAME varchar2(10),  
62 major varchar2(20));  
64  
65 alter table Apply add constraint C_fk foreign key(cNAME) references College on delete cascade;  
66  
67
```

Table altered.

13. Modify foreign key on sID in Apply table to foreign key on delete set null.

Code➔

=====



The screenshot shows an SQL Worksheet interface with a dark header bar containing 'Feedback', 'Help', and a user profile 'laxman.vashist_cs19@glia.ac.in'. Below the header, the 'SQL Worksheet' title is followed by 'Clear', 'Find', 'Actions', 'Save', and a 'Run' button. The main area contains a code editor with line numbers 61 to 72. The code defines a table 'Apply' with columns 'sID' (int), 'cNAME' (varchar2(10)), and 'major' (varchar2(20)). It then shows the process of dropping an existing foreign key constraint 'a_fk' and adding a new one that references the 'Student' table's 'sID' column, setting the delete action to 'set null'. A status message at the bottom indicates 'Table altered.'

```
61 sID int,  
62 cNAME varchar2(10),  
63 major varchar2(20));  
64  
65 alter table Apply drop constraint a_fk ;  
66 alter table Apply add constraint a_fk foreign key(sID) references Student on delete set null;  
67  
68  
69  
70  
71  
72
```

Table altered.

14. Rename column enrollment to enroll in College Table.

Code➔

=====



The screenshot shows an SQL Worksheet interface similar to the previous one. The code editor shows the creation of a 'College' table with columns 'cNAME' (varchar2(10)), 'state' (varchar2(10)), and 'Enrollment' (int). The next line shows the command to rename the 'Enrollment' column to 'Enroll'. A status message at the bottom indicates 'Table altered.'

```
1 create table College(  
2 cNAME varchar2(10),  
3 state varchar2(10),  
4 Enrollment int);  
5  
6 alter table College rename column Enrollment to Enroll;  
7  
8  
9  
10  
11
```

Table altered.

DBMS 2ND ASSIGNMENT