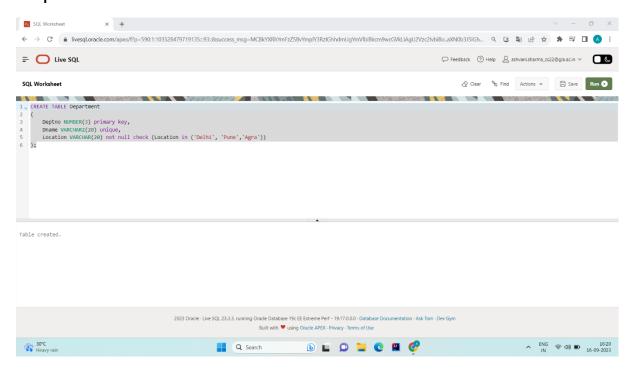# PRACTICAL ASSIGNMENT – II

Name: Bhupendra   **Roll NO.: 21(G1)**
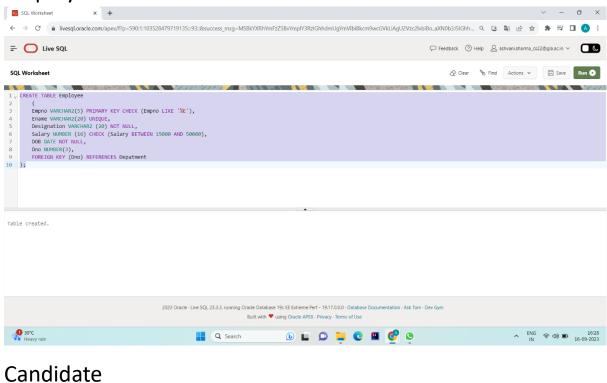
1. Create the following tables and specify constraints at the time of creation.
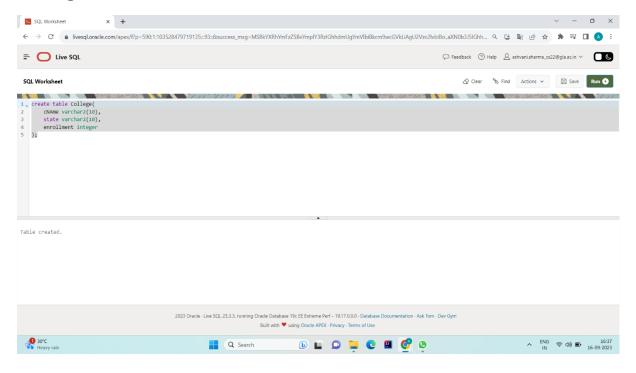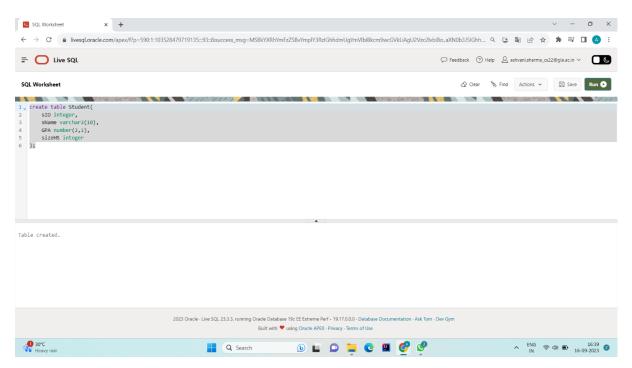
Department:

Employee:

```sql
CREATE TABLE Employee
    (
    Empno VARCHAR2(5) PRIMARY KEY CHECK (Empno LIKE '%E'),
    Ename VARCHAR2(20) UNIQUE,
    Designation VARCHAR2 (20) NOT NULL,
    Salary NUMBER (16) CHECK (Salary BETWEEN 15000 AND 50000),
    DOB DATE NOT NULL,
    Dno NUMBER(3),
    FOREIGN KEY (Dno) REFERENCES Depatment
);
```

Table created.

Candidate

```sql
CREATE  TABLE Candidate
    (
    Candidate_ID NUMBER(6) PRIMARY KEY,
    Candidate_Name VARCHAR2(20) NOT NULL,
    Candidate_Email VARCHAR(30) UNIQUE CHECK( Candidate_Email LIKE '%_@_%._%' ),
    Candidate_Dept VARCHAR(2) DEFAULT 'HR',
    Manager_ID NUMBER(30) REFERENCES Candidate)
);
```

Table created.

2.Create the Schemas as Specifies above without specifying any constraints.

College:


```
1  create table College(
2      cNAme varchar2(10),
3      state varchar2(10),
4      enrollment integer
5  );
```

Table created.

Student:


```
1  create table Student(
2      sID integer,
3      sName varchar2(10),
4      GPA number(2,1),
5      sizeHS integer
6  );
```

Table created.

Apply:

EXERCISE:

Q1. Add cName as Primary key in College.


```
1  alter table College
2  add primary key(cName);
```

Table altered.

Q2. Add sID as primary key in Student.


```
1  alter table Student
2  add primary key(sID);
```

Table altered.

Q3. Add sID, cName, major as primary key in Apply.


```
1  alter table Apply
2  add primary key(sID, cName, major);
```

```
Table altered.
```

Q4. Make sID in Apply foreign key referring table student and cName referring table college.


```
1  alter table Apply
2  add foreign key (sID) references Student;
```

```
Table altered.
```

```
1  alter table Apply
2  add foreign key (cName) references College;
```

Table altered.

2023 Oracle · Live SQL 23.3.3, running Oracle Database 19c EE Extreme Perf - 19.17.0.0.0 · Database Documentation · Ask Tom · Dev Gym

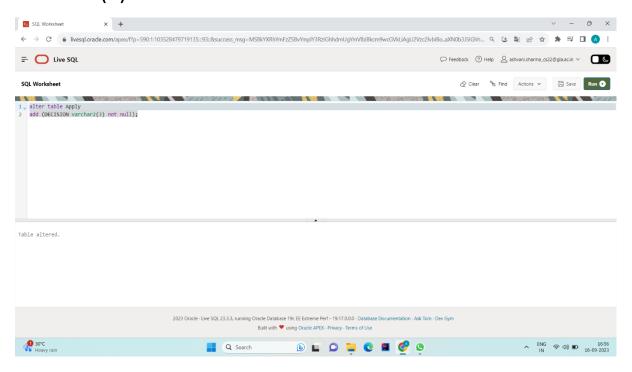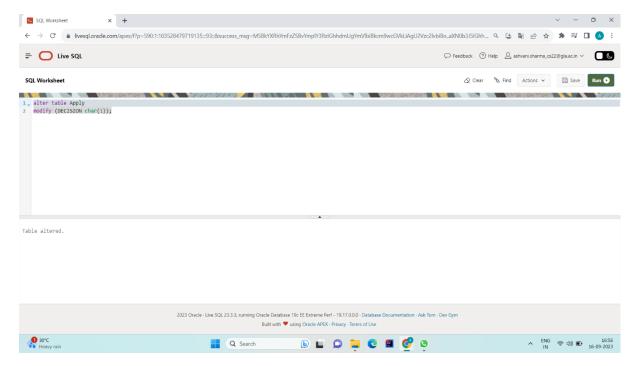Built with ♥ using Oracle APEX · Privacy · Terms of Use

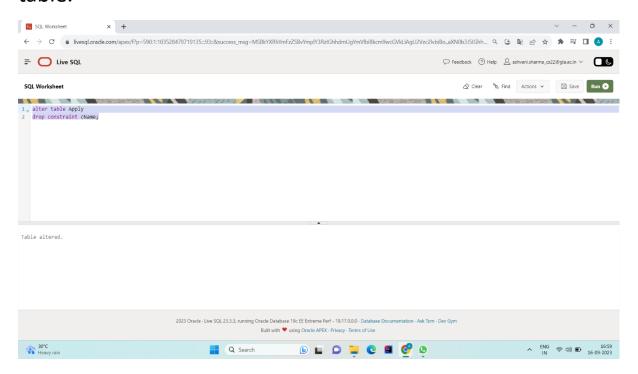## Q5. Increase data type size of major from 20 to 25.

Q6. Add a new column decision in the Apply table keeping a constraint of not null for this column with data type varchar2(3).
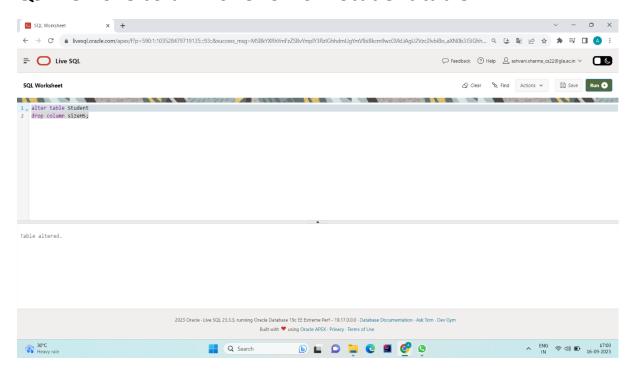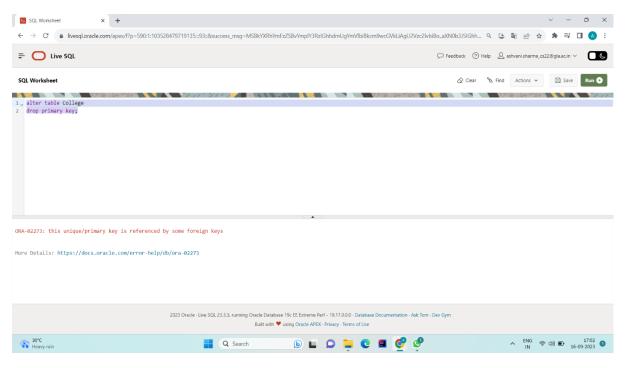
Q7. Change data type of decision in Apply to char(1).

Q8. Drop foreign key on column name cName from Apply table.

Q9. Remove column sizeHS from Student table.


```
1  alter table Student
2  drop column sizeHS;
```

```
Table altered.
```

Q10. Drop primary key from College.


```
1  alter table College
2  drop primary key;
```

```
ORA-02273: this unique/primary key is referenced by some foreign keys

More Details: https://docs.oracle.com/error-help/db/ora-02273
```
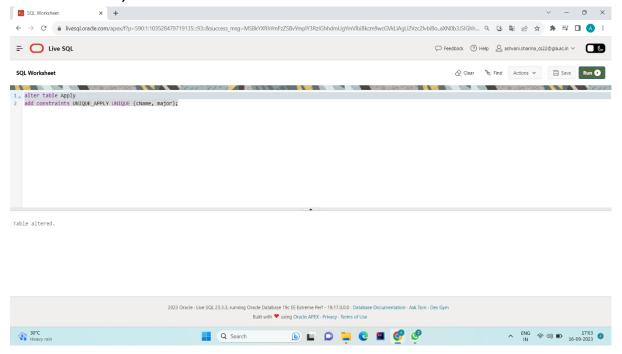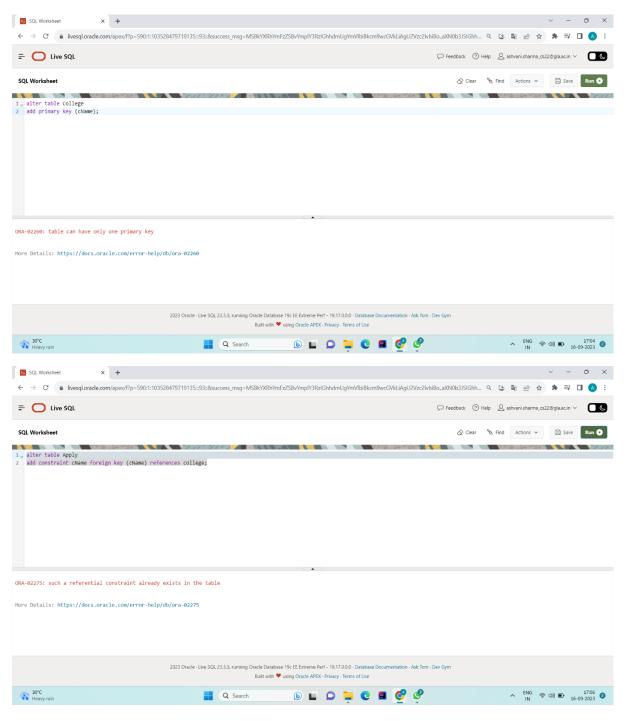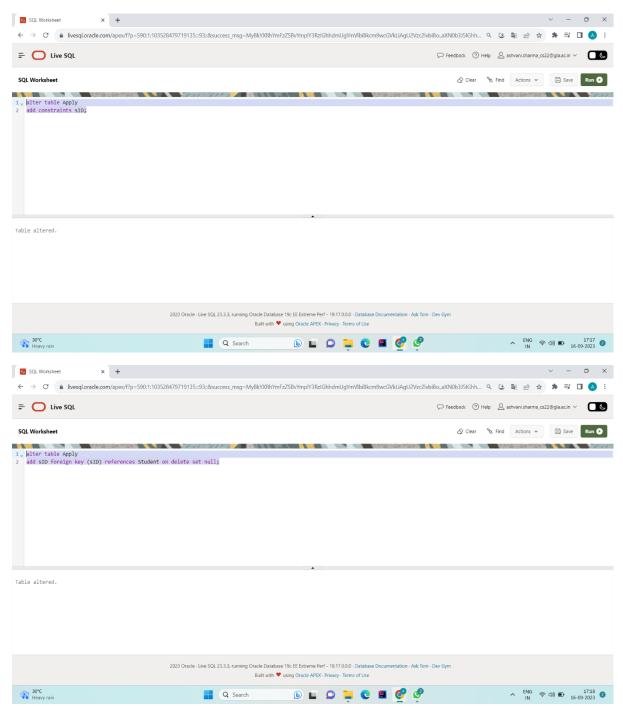
Q11. Make cName, major unique pairwise such as Stanford CS, Stanford EE.

Q12. Add cName as Foreign Key in Apply table referring table College using on delete cascade.


```
1  alter table College
2  add primary key (cName);
```

ORA-02260: table can have only one primary key

More Details: https://docs.oracle.com/error-help/db/ora-02260


```
1  alter table Apply
2  add constraint cName foreign key (cName) references college;
```

ORA-02275: such a referential constraint already exists in the table

More Details: https://docs.oracle.com/error-help/db/ora-02275

Q13. Modify foreign key on sID in Apply table to foreign key on delete set null.

Q14. Rename column enrollment to enroll in College Table.