

SQL>

```
SQL> CREATE TABLE student(  
 2      rollNo VARCHAR2(10),  
 3      name VARCHAR2(20),  
 4      degree VARCHAR2(10),  
 5      year VARCHAR2(4),  
 6      sex VARCHAR2(1),  
 7      deptNo VARCHAR2(4),  
 8      advisor VARCHAR2(10)  
 9  );
```

Table created.

SQL>

```
SQL> CREATE TABLE department(  
 2      deptId VARCHAR2(4),  
 3      name VARCHAR2(20),  
 4      hod VARCHAR2(10),  
 5      phone VARCHAR2(10)  
 6  );
```

Table created.

SQL>

```
SQL> CREATE TABLE professor(  
 2      empId VARCHAR2(10),  
 3      name VARCHAR2(20),  
 4      sex VARCHAR2(1),
```

```
5      startYear NUMBER(4),
6      deptNo VARCHAR2(4),
7      phone VARCHAR2(10)
8  );
```

Table created.

SQL>

```
SQL> CREATE TABLE enrollment(
2      rollNo VARCHAR2(10),
3      courseId VARCHAR2(5),
4      sem VARCHAR2(4),
5      year VARCHAR2(4),
6      grade VARCHAR2(1)
7  );
```

Table created.

SQL>

```
SQL> CREATE TABLE teaching(
2      empId VARCHAR2(10),
3      courseId VARCHAR2(5),
4      sem VARCHAR2(4),
5      year VARCHAR2(4),
6      classRoom VARCHAR2(5)
7  );
```

Table created.

SQL>

```
SQL> INSERT INTO student VALUES('CS02B2018', 'Abhishek', 'B.Tech', '2002', 'M', '001', 'CS01');
```

```
1 row created.
```

```
SQL>
```

```
SQL> INSERT INTO department VALUES('001', 'Computer Science', 'CS01', '1234567890');
```

```
1 row created.
```

```
SQL>
```

```
SQL> INSERT INTO professor VALUES('CS01', 'Masilamani', 'M', '2000', '001', '1234567899');
```

```
1 row created.
```

```
SQL> INSERT INTO professor VALUES('CS02', 'Rajesh', 'M', '2000', '001', '1234567888');
```

```
1 row created.
```

```
SQL>
```

```
SQL> INSERT INTO enrollment VALUES('CS02B2018', 'CS101', 'Even', '2002', 'S');
```

```
1 row created.
```

```
SQL>
```

```
SQL> insert into teaching values('CS01', 'CS101', 'Even', '2002', 'H01');
```

```
1 row created.
```

```
SQL>
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```
SQL>
```

```
SQL>
SQL> -- Question 1
SQL> SELECT name, rollNo FROM student
  2  WHERE advisor IN (
  3      SELECT hod FROM department WHERE name = 'Computer Science'
  4  );
```

NAME	ROLLNO
Abhishek	CS02B2018

```
SQL>
SQL>
SQL> -- Question 2
SQL> CREATE TABLE prof02 AS
  2  SELECT empId FROM teaching WHERE year = 2002;
```

Table created.

```
SQL>
SQL> CREATE TABLE prof02join AS
  2  SELECT p.name, p.startYear FROM professor p INNER JOIN prof02 p02 ON p.empId = p02.empId;
```

Table created.

```
SQL>
SQL> SELECT * FROM prof02join WHERE startYear = (
  2      SELECT MIN(startYear) FROM prof02join
  3  );
```

NAME	STARTYEAR
-----	-----
Masilamani	2000

```
SQL>
SQL>
SQL> -- Question 3
SQL> CREATE TABLE enroll02 AS
  2  SELECT * FROM enrollment WHERE year = 2002;
```

Table created.

```
SQL>
SQL> SELECT DISTINCT rollNo FROM enroll02
  2  MINUS
  3  SELECT DISTINCT rollNO FROM enroll02 WHERE grade != 'S';
```

ROLLNO

CS02B2018

```
SQL> |
```