PRACTICAL 1

For given scenario Draw E-R diagram and convert entities and relationships to table.

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College Database ER Diagram and Tables

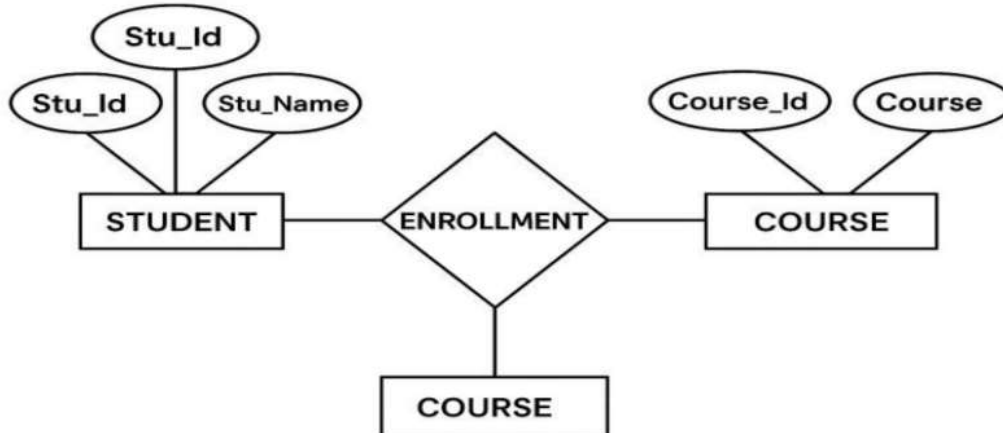**Scenario**
A College Database keeps track of:
- Students (Student ID, Name, Address)
- Courses (Course ID, Course Name, Credits)
- Enrollments (which student is enrolled in which course, with the enrollment date)

Rules:
- A student can enroll in many courses.
- A course can have many students.
- Enrollment date is stored.

ER Diagram
The diagram below represents the entities, attributes, and their relationships:

STUDENT TABLE:

```
SQL> create table student1100
  2  (stu_Id number(4),
  3  stu_name varchar(10),
  4  stu_Addr varchar(10));
```

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```
SQL> insert into student1100
  2  values(101,'rajesh','pune');

1 row created.

SQL> insert into student1100
  2  values(102,'priya','mumbai');

1 row created.

SQL> insert into student1100
  2  values(103,'aman','nagpur');

1 row created.
```

```
SQL> select * from student1100;

    STU_ID STU_NAME    STU_ADDR
---------- ----------  ----------
       101 rajesh      pune
       102 priya       mumbai
       103 aman        nagpur
```

COURSE TABLE:

```
SQL> create table course1100
  2  (course_id number(4),
  3  course_name varchar(20),
  4  credits number(2));

Table created.
```

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```
SQL> insert into course1100
  2  values(001,'database systems',4);

1 row created.

SQL> insert into course1100
  2  values(002,'java programming',3);

1 row created.

SQL> insert into course1100
  2  values(003,'OS fundamentals',4);

1 row created.
```

EMPLOYMENT TABLE:

```
SQL> select * from course1100;

COURSE_ID COURSE_NAME                     CREDITS
--------- ------------------------------ ---------
        1 database systems                      4
        2 java programming                      3
        3 OS fundamentals                       4
```

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```
SQL> create table enrollment1100
  2  (stu_id number(4),
  3  course_id number(4),
  4  enroll_date number(10));

Table created.

SQL> insert into enrollment1100
  2  values(101,001,2024-07-01);

1 row created.

SQL> insert into enrollment1100
  2  values(101,002,2024-07-05);

1 row created.

SQL> insert into enrollment1100
  2  values(102,001,2024-07-02);

1 row created.

SQL> insert into enrollment1100
  2  values(103,003,2024-07-03);

1 row created.

SQL> select * from enrollment1100;

    STU_ID  COURSE_ID ENROLL_DATE
---------- ---------- -----------
       101          1        2016
       101          2        2012
       102          1        2015
       103          3        2014
```