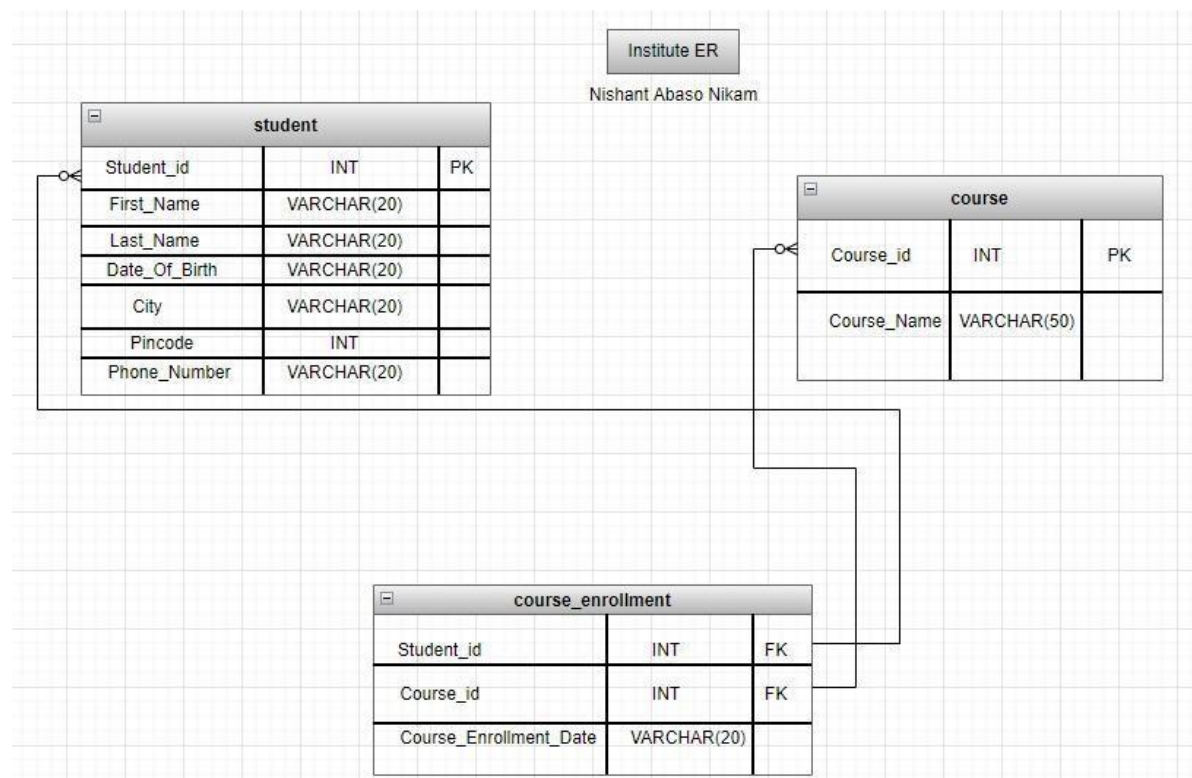


INSTITUTE Database Management System

SUMMARY :

It is a **INSTITUTE Database Management System** where the database has the students details as well the course details in the tabular form. When student table store the students information while course table store the course ID and course name information. The course enrollment table holds the records of student ID, course ID and enrollment date using this database user can understand the which student taken which course and also can retrieve the needed data.

ER diagram:



Tables Description:**1] Student Table :**

```
MariaDB [institute]> desc student;
```

Field	Type	Null	Key	Default	Extra
Student_id	int(11)	NO	PRI	NULL	
First_Name	varchar(20)	YES		NULL	
Last_Name	varchar(20)	YES		NULL	
Date_Of_Birth	varchar(20)	YES		NULL	
City	varchar(20)	YES		NULL	
Pincode	int(11)	YES		NULL	
Phone_Number	varchar(20)	YES		NULL	

7 rows in set (0.023 sec)

2] Course Table :

```
MariaDB [institute]> desc course;
```

Field	Type	Null	Key	Default	Extra
Course_id	int(11)	NO	PRI	NULL	
Course_Name	varchar(50)	YES		NULL	

2 rows in set (0.025 sec)

3] Course Enrollment Table :

```
MariaDB [institute]> desc course_enrollment;
```

Field	Type	Null	Key	Default	Extra
Student_id	int(11)	YES	MUL	NULL	
Course_id	int(11)	YES	MUL	NULL	
Course_Enrollment_Date	varchar(20)	YES		NULL	

3 rows in set (0.021 sec)

Tables Data :**1] Student Table :**

```
MariaDB [institute]> select*from student;
```

Student_id	First_Name	Last_Name	Date_Of_Birth	City	Pincode	Phone_Number
1	Rohit	Nikam	1998-01-22	Mumbai	400081	9970208839
2	Swapnil	Shelake	2000-01-25	Pune	411002	8308055020
3	Amit	Khandait	1999-07-08	Satara	415001	9594748976
4	Ashish	Kap	2000-07-15	Mumbai	400601	8874546615
5	Abhang	Ringe	1999-10-29	Raigad	402107	8450932577
6	Siddhi	Sawant	2000-09-01	Sawantwadi	416510	8723572577
7	Nishant	Nikam	2000-07-22	Satara	415511	8291662537

```
7 rows in set (0.001 sec)
```

2] Course Table :

```
MariaDB [institute]> select*from course;
```

Course_id	Course_Name
101	Cyber Security
102	DevOps
103	Digital Marketing
104	Robotics
105	Full Stack Developer
106	Data Science
107	Artificial Intelligence

```
7 rows in set (0.000 sec)
```

3] Course Enrollment Table :

```
MariaDB [institute]> select * from course_enrollment;
```

Student_id	Course_id	Course_Enrollment_Date
1	103	2021-09-15
2	106	2022-01-28
3	101	2021-10-24
4	107	2020-11-15
5	103	2022-03-18
6	104	2021-10-01
7	105	2022-05-04

```
7 rows in set (0.001 sec)
```

Subquery:

Find the student's name who's student_id is greater than average student_id :

```
MariaDB [institute]> select first_name, last_name from student where student_id > (select avg(student_id) from course_enrollment);
```

first_name	last_name
Abhang	Ringe
Siddhi	Savant
Nishant	Nikam

```
3 rows in set (0.001 sec)
```

Join:

Find all student's who have taken which course ID :

```
MariaDB [institute]> select s.first_name, c.course_id from student s inner join course_enrollment c on s.student_id=c.student_id;
```

first_name	course_id
Rohit	103
Swapnil	106
Amit	101
Ashish	107
Abhang	103
Siddhi	104
Nishant	105

```
7 rows in set (0.000 sec)
```

View:

A VIEW to see which students taken which course :

```
MariaDB [institute]> create view student_course_name as select c1.student_id,c2.course_name from course_enrollment c1,course c2 where c1.course_id=c2.course_id;
Query OK, 0 rows affected (0.054 sec)

MariaDB [institute]> select*from student_course_name;
+-----+-----+
| student_id | course_name |
+-----+-----+
| 1 | Digital Marketing |
| 2 | Data Science |
| 3 | Cyber Security |
| 4 | Artificial Intelligence |
| 5 | Digital Marketing |
| 6 | Robotics |
| 7 | Full Stack Developer |
+-----+-----+
7 rows in set (0.001 sec)
```