



7/3/2023

# ITVEDANT **DATABASE** MANAGEMENT



**Final Project for Introduction of SQL**  
**By**  
**CHAITANYA GAIKAR**

# 1. Description:

*The Institute Class Management Database Project aims to develop a comprehensive and efficient database system to manage various aspects of class management within an educational institute. The project will involve the design, implementation, and integration of a robust database that will streamline and automate class-related processes, ensuring smooth operations and improved organization.*

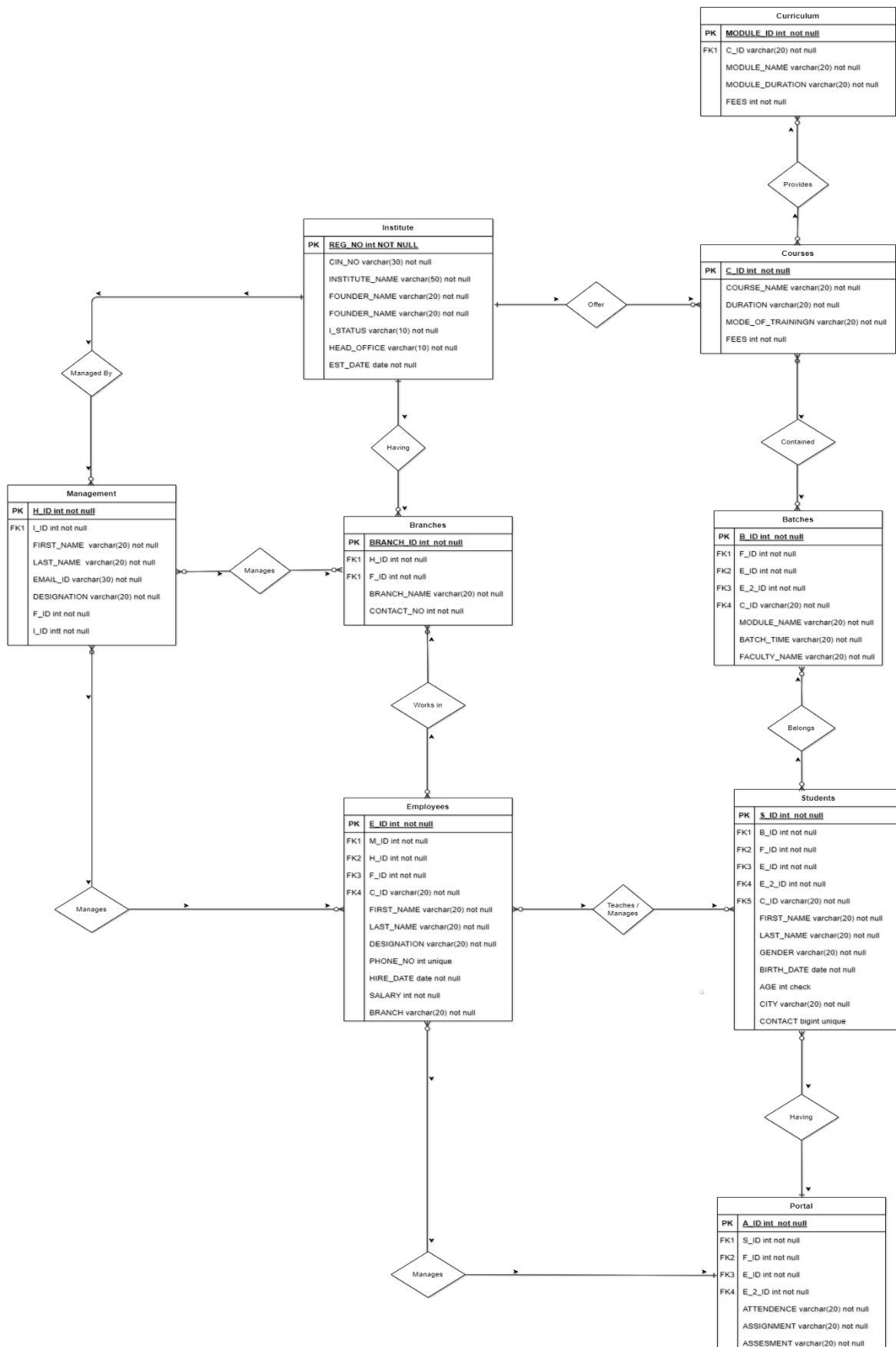
## Key Features :

- **Student Information Management** : The database will store and manage student records, including personal details, contact information, enrollment status, attendance records, and academic performance. It will enable easy retrieval and updating of student information.
- **Course Management** : The system will provide features to manage courses offered by the institute, including course details, prerequisites, class schedules, and faculty assignments. It will facilitate easy tracking and modification of course information.
- **Enrollment and Registration**: The database will handle the enrollment process, allowing students to register for courses and manage their course selections. It will keep track of seat availability, generate enrollment reports, and facilitate efficient course allocation.
- **Attendance Tracking** : The system will include functionality to record and track student attendance. It will provide attendance reports for individual students, as well as generate statistical reports for analyzing class attendance trends.

**This Database contains 9 tables and they are divided into 20 sub-tables :**

1. Institute
2. Courses
3. Curriculum
4. Branches
5. Management
6. Batches
7. Employees
8. Students
9. Portals

## 2. ER-Diagram for ITVEDANT Database Management :



### 3. Table Descriptions:

#### 1. Institute

Field	Type	Null	Key	Default	Extra
CIN_NO	varchar(30)	YES		NULL	
INSTITUTE_NAME	varchar(50)	YES		NULL	
FOUNDER_NAME	varchar(20)	NO		NULL	
I_STATUS	varchar(10)	NO		NULL	
HEAD_OFFICE	varchar(10)	NO		NULL	
REG_NO	int	NO	PRI	NULL	
EST_DATE	date	NO		NULL	

#### 2. Management

Field	Type	Null	Key	Default	Extra
H_ID	int	NO	PRI	NULL	
FIRST_NAME	varchar(20)	NO		NULL	
LAST_NAME	varchar(20)	NO		NULL	
EMAIL_ID	varchar(30)	NO		NULL	
DESIGNATION	varchar(20)	NO		NULL	
F_ID	int	YES		NULL	
I_ID	int	YES	MUL	NULL	

#### 3. Branches

Field	Type	Null	Key	Default	Extra
BRANCH_ID	int	NO	PRI	NULL	
BRANCH_NAME	varchar(20)	NO		NULL	
CONTACT_NO	bigint	YES	UNI	NULL	
H_ID	int	YES	MUL	NULL	
F_ID	int	YES	MUL	NULL	

#### 4. Courses

Field	Type	Null	Key	Default	Extra
C_ID	varchar(10)	NO	PRI	NULL	
COURSE_NAME	varchar(50)	YES		NULL	
Duration	varchar(20)	NO		NULL	
MODE_OF_TRAINING	varchar(20)	NO		NULL	
FEES	int	NO		NULL	

#### 5. Employee

Field	Type	Null	Key	Default	Extra
BRANCH_ID	int	NO	PRI	NULL	
BRANCH_NAME	varchar(20)	NO		NULL	
CONTACT_NO	bigint	YES	UNI	NULL	
H_ID	int	YES	MUL	NULL	
F_ID	int	YES	MUL	NULL	

#### 6. Batches

Field	Type	Null	Key	Default	Extra
B_ID	int	NO	PRI	NULL	
MODULE_NAME	varchar(20)	NO		NULL	
batch_time	varchar(20)	YES		NULL	
F_id	int	YES	MUL	NULL	
E_ID	int	YES	MUL	NULL	
E_2_ID	int	YES	MUL	NULL	
FACULTY_NAME	varchar(20)	YES		NULL	
C_ID	varchar(20)	YES	MUL	NULL	

## 7. Curriculum

Field	Type	Null	Key	Default	Extra
MODULE_ID	int	NO	PRI	NULL	
MODULE_NAME	varchar(50)	YES		NULL	
MODULE_DURATION	varchar(20)	YES		NULL	
C_ID	varchar(10)	YES	MUL	NULL	

## 8. Students

Field	Type	Null	Key	Default	Extra
S_ID	int	NO	PRI	NULL	
FIRST_NAME	varchar(20)	NO		NULL	
LAST_NAME	varchar(20)	NO		NULL	
GENDER	varchar(10)	NO		NULL	
BIRTH_DATE	date	NO		NULL	
AGE	int	YES		NULL	
CITY	varchar(20)	YES		NULL	
CONTACT	bigint	YES	UNI	NULL	
B_ID	int	YES	MUL	NULL	
F_ID	int	NO	MUL	NULL	
E_ID	int	YES	MUL	NULL	
E_2_ID	int	YES	MUL	NULL	
C_ID	varchar(10)	YES	MUL	NULL	

## 9. Portal

Field	Type	Null	Key	Default	Extra
A_ID	int	NO	PRI	NULL	
ATTENDENCE	int	NO		NULL	
ASSIGNMENT	int	NO		NULL	
ASSESMENT	int	NO		NULL	
S_ID	int	YES	MUL	NULL	
F_ID	int	YES	MUL	NULL	
E_ID	int	YES	MUL	NULL	
E_2_ID	int	YES	MUL	NULL	

## 4. Commands:

➤ **Create Database :**

Create database ITVEDANT.LTD;

➤ **Use Database :**

Use ITVEDANT.LTD;

➤ **Create table Institute :**

create table Institute(CIN\_NO varchar(30) not null,INSTITUTE\_NAME varchar(20) not null,FOUNDER\_NAME varchar(20) not null,I\_STATUS varchar(10) not null,HEAD\_OFFICE varchar(10) Not null,REG\_NO int primary key,EST\_DATE date not null);

➤ **Create table Branches :**

create table Branches(BRANCH\_ID int primary key,BRANCH\_NAME varchar(20) not null,CONTACT\_NO bigint unique,H\_ID int,foreign key(H\_ID) references Management(H\_ID),F\_ID int,foreign key(F\_ID) references Management(H\_ID);

➤ **Create table Courses :**

create table Courses(C\_ID varchar(10) primary key,COURSE\_NAME varchar(50),Duration varchar(20) not null,MODE\_OF\_TRAINING varchar(20) not null,FEES int not null);

➤ **Create table Curriculum :**

create table ML\_Curriculum(MODULE\_ID int primary key,MODULE\_NAME varchar(50),MODULE\_DURATION varchar(20),C\_ID varchar(10),foreign key(c\_id)references courses(C\_ID));

➤ **Create table Batches :**

create table V\_Batches (B\_ID int primary key,MODULE\_NAME varchar(20) not null,BATCH\_TIME timestamp not null,F\_ID int,foreign key(F\_ID) references head(H\_ID),E\_ID int,foreign key(E\_ID) references V\_employee(E\_ID),E\_2\_ID int,foreign key(E\_2\_ID) references v\_employee(E\_ID),FACULTY\_NAME varchar(20),C\_ID varchar(10),foreign key(C\_ID) references Courses(C\_ID));

➤ **Create table Employees :**

create table Employee (E\_ID int primary key,FIRST\_NAME varchar(20) not null,LAST\_NAME varchar(20) not null, DESIGNATION varchar(20),COURSE varchar(20) not null,PHONE\_NO bigint unique,HIRE\_DATE date not null,SALARY int not null,BRANCH varchar(20) default "THANE",M\_ID int,foreign key(M\_ID) references Management(M\_ID),H\_ID int,foreign key(H\_ID) references Management(H\_ID), F\_ID int,foreign key(F\_ID) references Management(H\_ID), C\_ID varchar(10),foreign key(C\_ID) references Courses(C\_ID));

➤ **Create table Students :**

```
CREATE TABLE v_Java_10to12_Students(S_ID int primary key,FIRST_NAME varchar(20) not null, LAST_NAME varchar(20) not null, GENDER varchar(10) not null, BIRTH_DATE date not null, AGE int check(AGE >= 18), CITY varchar(20) not null, CONTACT bigint unique, B_ID int, foreign key(B_ID) references v_batches(B_ID), F_ID int, foreign key(f_id) references v_employee(e_id), E_ID int, foreign key(E_ID) references v_employee(e_id), E_2_ID int, foreign key(e_2_id) references v_employee(e_id), C_ID varchar(10), foreign key(C_ID) references Courses(C_ID));
```

➤ **Create table Portal :**

```
create table Portal(A_ID int primary key, ATTENDENCE int not null, ASSIGNMENT int not null, ASSESMENT int not null, S_ID int, foreign key(S_ID) references student(S_ID) F_ID int, foreign key(f_id) references v_employee(e_id), E_ID int, foreign key(E_ID) references v_employee(e_id), E_2_ID int, foreign key(e_2_id) references v_employee(e_id),);
```

➤ **Insert values into Institute :**

```
INSERT INTO Institute VALUES("U80902MH2019PTC332530", "ITVEDANT EDUCATION PRIVATE LIMITED", "Swapnil Gondkar", "Active", "Mumbai", 332530, '2019-5-11');
```

➤ **Insert values into Branches :**

```
INSERT INTO Branches VALUES(11, "Thane", 9874561230, 3, 1), (12, "Vashi", 8855213651, 3, 1);
```

➤ **Insert values into Courses :**

```
INSERT INTO Courses VALUES("FS", "MASTER IN FULL STACK DEVELOPMENT", "8 Months", "Classroom & Online", 148000), ("DSA", "MASTER IN DATA SCIENCE & ANALYTICS WITH AI", "8 Months", "Classroom & Online", 148000), ("AWS", "MASTER IN AWS CLOUD TECHNOLOGY", "6 Months", "Classroom & Online", 100000), ("DSE", "MASTER IN DATA SOFTWARE ENGINEERING", "6 Months", "Classroom & Online", 100000), ("ML", "PG IN MACHINE LEARNING & AI", "6 Months", "Classroom & Online", 100000);
```

➤ **Insert values into Curriculum :**

```
INSERT INTO Curriculum VALUES(1, "HTML 5 & CSS 3", "2 Weeks", "FS"), (2, "JavaScript", "3 Weeks", "FS"), (3, "Bootstrap 5.2", "0.5 Weeks", "FS"), (4, "Angular", "5 Weeks", "FS"), (5, "SQL", "3.5 Week", "FS"), (6, "MongoDB", "1 Weeks", "FS"), (7, "Foundation", "1 Weeks", "FS"), (8, "Python Programming", "5.3 Weeks", "FS"), (9, "Core Java", "6.3 Weeks", "FS"), (10, "Django Framework", "4.8 Weeks", "FS"), (11, "Spring Boot", "6.3 Weeks", "FS"), (12, "SDLC & Agile Methodology", "0.5 Weeks", "FS"), (13, "Scrum", "0.5 Weeks", "FS"), (14, "Jira", "0.5 Weeks", "FS"), (15, "Manual Testing", "0.5 Weeks", "FS"), (16, "JUnit Testing", "0.5 Weeks", "FS"), (17, "PyTest", "0.5 Weeks", "FS");
```



➤ **Insert values into Batches :**

```
INSERT INTO Batches VALUES(501,"ML","07:00-09:00 PM",107,102,103,"Harshali Gaikar","DSA");
(502,"PowerBi","03:00-05:00 PM",106,102,103,"Praful Shelar","DSA");
(503,"Angular","01:00-03:00 PM",104,102,103,"Nitin Deshmukh","FS");
(504,"Java","10:00-12:00 AM",105,102,103,"Jayesh Patil","FS");
```

➤ **Insert values into Employees :**

```
INSERT INTO Employee VALUES(101,"Rakshit","Tarmale","HR",9123326395,'2021-11-06',30000,default,12,3,1,null),
(102,"Prachi","Kulkarni","Academic Head",8084211855,'2021-11-06',40000,default,12,3,1,null),
(103,"Neelam","Khushwaha","Academic Coordinator",7358410077,'2020-01-03',30000,default,12,3,1,null),
(104,"Nitin","Deshmukh","Trainer",9002253172,'2022-08-23',50000,default,12,3,1,"FS"),
(105,"Jayesh","Patil","Trainer",9064180550,'2021-06-03',50000,default,12,3,1,"FS"),
(106,"Praful","Shelar","Trainer",9330248743,'2023-01-11',50000,default,12,3,1,"DSA"),
(107,"Harshali","Gaikar","Trainer",7583927301,'2022-12-01',50000,default,12,3,1,"DSA"),
(108,"Sanjay","Sharma","Trainer",8854697412,'2020-06-25',60000,default,11,3,1,"DSA"),
(109,"Rohidas","Shelar","Trainer",8856037645,'2023-01-02',60000,default,11,3,1,"FS");
```

➤ **Insert values into Students :**

```
INSERT INTO Students VALUES(1,"Sahil","Gaikar","Male",'2002-05-11',21,"Thane",8895580429,502,104,102,103,"FS"),
(2,"Amit","Kadam","Male",'2001-08-30',22,"Mumbai",9883807482,502,104,102,103,"FS"),
(3,"Atharv","Kale","Male",'2002-12-06',21,"Kalyan",9311141101,502,104,102,103,"FS"),
(4,"Dhaval","Dalavi","Male",'2000-05-18',23,"Ambarnath",7042153556,502,104,102,103,"FS"),
(5,"Hemant","Pansare","Male",'1999-12-24',24,"Airoli",9300005474,502,104,102,103,"FS"),
(6,"Jayesh","Mohite","Male",'2001-07-22',22,"Kalwa",9064764227,502,104,102,103,"FS"),
(7,"Praful","Raut","Male",'2002-04-01',22,"Ghatkopar",7033054768,502,104,102,103,"FS"),
(8,"Rajesh","Singh","Male",'2000-02-08',23,"Thane",9142719158,502,104,102,103,"FS"),
(9,"Sanjog","Bhoite","Male",'2002-05-25',21,"Thane",8637384947,502,104,102,103,"FS"),
(10,"Salim","Sheikh","Male",'2001-07-13',22,"Mumbra",9433875781,502,104,102,103,"FS"),
(11,"Bela","Patil","Female",'2002-03-12',21,"Mumbai",9835821266,502,104,102,103,"FS"),
(12,"Anvi","Shirke","Female",'2001-11-05',22,"Thane",7675904816,502,104,102,103,"FS"),
(13,"Sumedh","Joshi","Male",'1998-07-15',25,"Vitawa",9339098223,502,104,102,103,"FS"),
(14,"Aakash","Khatri","Male",'1999-08-20',24,"Vitawa",7667445579,502,104,102,103,"FS"),
(15,"Aaditi","Sharma","Female",'2002-04-28',21,"Mumbai",9883366500,502,104,102,103,"FS"),
(16,"Advik","Shukla","Male",'2000-07-10',23,"Ambarnath",6287773656,502,104,102,103,"FS"),
(17,"Rohan","Malik","Male",'2001-09-01',22,"Powai",9688107002,502,104,102,103,"FS"),
(18,"Sanket","Tiware","Male",'2002-10-05',21,"Kalyan",8927280847,502,104,102,103,"FS"),
(19,"Shri","Mudgalkar","Female",'2001-10-02',22,"Airoli",7091228567,502,104,102,103,"FS"),
(20,"Utkarsh","Kamat","Male",'2000-04-20',23,"Thane",9585110592,502,104,102,103,"FS"),
(1,"Kishor","Kadam","Male",'1999-10-11',24,"Mumbai",9311141101,504,106,102,103,"DSA"),
(2,"Vinit","Sharma","Male",'1998-12-03',25,"Thane",8637384947,504,106,102,103,"DSA"),
(3,"Deepika","Malik","Female",'2000-09-12',23,"Rabale",9883366500,504,106,102,103,"DSA"),
(4,"Yash","Bhoite","Male",'2002-06-12',21,"Thane",7989678666,504,106,102,103,"DSA"),
(5,"Megha","Patil","Female",'2001-11-18',22,"Airoli",7291010773,504,106,102,103,"DSA"),
(6,"Manasi","Deshmukh","Female",'2002-04-17',21,"Kalyan",8388029413,504,106,102,103,"DSA"),
```

(7,"Aniket","Jadhav","Male",'2000-11-28',23,"Digha",8793072252,504,106,102,103,"DSA"),  
(8,"Santosh","Mishra","Male",'1998-09-23',24,"Thane",8927156725,504,106,102,103,"DSA"),  
(9,"Leena","Singh","Female",'2001-10-09',23,"Ghatkopar",7735969518,504,106,102,103,"DSA"),  
(10,"Shourya","Pathak","Male",'2002-04-27',21,"Ambarnath",8619652687,504,106,102,103,"DSA"),  
(11,"Nilesh","Naik","Male",'1999-07-25',24,"Kalyan",8101841899,504,106,102,103,"DSA"),  
(12,"Suraj","Raut","Male",'2002-09-26',21,"Ambarnath",9087693449,504,106,102,103,"DSA"),  
(13,"Pradeep","Shinde","Male",'2000-03-25',23,"Thane",8399903655,504,106,102,103,"DSA"),  
(14,"Sameer","Khote","Male",'2001-02-28',22,"Kalwa",9199390269,504,106,102,103,"DSA"),  
(15,"Shashank","Kamble","Male",'2002-10-22',21,"Mumbra",7890987805,504,106,102,103,"DSA"),  
(16,"Uday","Kolhe","Male",'1999-09-29',24,"Thane",7383842107,504,106,102,103,"DSA"),  
(17,"Shilpa","Kamat","Female",'2000-05-17',23,"Powai",9728964584,504,106,102,103,"DSA"),  
(18,"Vishal","Tambe","Male",'2002-03-04',21,"Kalwa",9172755315,504,106,102,103,"DSA"),  
(19,"Sachin","Mehta","Male",'2000-08-24',23,"Ghansoli",6289675212,504,106,102,103,"DSA"),  
(20,"Mahesh","Suratkar","Male",'2002-01-21',21,"Rabale",7499521277,504,106,102,103,"DSA"),  
(20,"Kishor","Kadam","Male",'1999-10-11',24,"Mumbai",9311141101,503,104,102,103,"FS"),  
(19,"Vinit","Sharma","Male",'1998-12-03',25,"Vashi",8637384947,503,104,102,103,"FS"),  
(18,"Deepika","Malik","Female",'2000-09-12',23,"Rabale",9883366500,503,104,102,103,"FS"),  
(17,"Yash","Bhoite","Male",'2002-06-12',21,"Vashi",7989678666,503,104,102,103,"FS"),  
(16,"Megha","Patil","Female",'2001-11-18',22,"Vashi",7291010773,503,104,102,103,"FS"),  
(15,"Manasi","Deshmukh","Female",'2002-04-17',21,"Kalyan",8388029413,503,104,102,103,"FS"),  
(14,"Aniket","Jadhav","Male",'2000-11-28',23,"Belapur",8793072252,503,104,102,103,"FS"),  
(13,"Santosh","Mishra","Male",'1998-09-23',24,"Vashi",8927156725,503,104,102,103,"FS"),  
(12,"Leena","Singh","Female",'2001-10-09',23,"Ghatkopar",7735969518,503,104,102,103,"FS"),  
(11,"Shourya","Pathak","Male",'2002-04-27',21,"Juinagar",8619652687,503,104,102,103,"FS"),  
(10,"Nilesh","Naik","Male",'1999-07-25',24,"Kalyan",8101841899,503,104,102,103,"FS"),  
(9,"Suraj","Raut","Male",'2002-09-26',21,"Juinagar",9087693449,503,104,102,103,"FS"),  
(8,"Pradeep","Shinde","Male",'2000-03-25',23,"Vashi",8399903655,503,104,102,103,"FS"),  
(7,"Sameer","Khote","Male",'2001-02-28',22,"New  
Mumbai",9199390269,503,104,102,103,"FS"),  
(6,"Shashank","Kamble","Male",'2002-10-22',21,"New  
Mumbai",7890987805,503,104,102,103,"FS"),  
(5,"Uday","Kolhe","Male",'1999-09-29',24,"Vashi",7383842107,503,104,102,103,"FS"),  
(4,"Shilpa","Kamat","Female",'2000-05-17',23,"Seawoods",9728964584,503,104,102,103,"FS"),  
(3,"Vishal","Tambe","Male",'2002-03-04',21,"Belapur",9172755315,503,104,102,103,"FS"),  
(2,"Sachin","Mehta","Male",'2000-08-24',23,"Ghansoli",6289675212,503,104,102,103,"FS"),  
(1,"Mahesh","Suratkar","Male",'2002-01-21',21,"Rabale",7499521277,503,104,102,103,"FS"),  
(20,"Akshay","Samant","Male",'1998-03-03',25,"Vashi",9014293267,501,107,102,103,"DSA"),  
(19,"Abhijan","Pandit","Male",'1999-10-05',24,"Mumbai",9992100323,501,107,102,103,"DSA"),  
(18,"Laxmi","Kotal","Female",'2000-04-25',23,"Rabale",9883366123,501,107,102,103,"DSA"),  
(17,"Dhiraj","Dalvi","Male",'2002-06-12',21,"Vashi",7989645678,501,107,102,103,"DSA"),  
(16,"Leela","Rao","Female",'2001-03-09',22,"Vashi",7291032456,501,107,102,103,"DSA"),  
(15,"Manisha","Bhave","Female",'2002-09-24',21,"Kalyan",8388078542,501,107,102,103,"DSA"),  
(14,"Prakash","Mahajan","Male",'2000-07-15',23,"Belapur",8793096321,501,107,102,103,"DSA"),  
(13,"Rajendra","Jadhao","Male",'1998-12-23',24,"Vashi",8927152878,501,107,102,103,"DSA"),  
(12,"Susmita","Bhagwat","Female",'2001-01-  
19',23,"Ghatkopar",7735996745,501,107,102,103,"DSA"),  
(11,"Raghav","Panchal","Male",'2002-03-27',21,"Juinagar",8619679852,501,107,102,103,"DSA"),  
(10,"Shiv","Kelkar","Male",'1999-07-20',24,"Kalyan",8101832541,501,107,102,103,"DSA"),

(9,"Rajnath","Dhamne","Male",'2002-08-10',21,"Juinagar",9087674136,501,107,102,103,"DSA"),  
(8,"Tapan","Sharma","Male",'2000-04-15',23,"Vashi",8399996875,501,107,102,103,"DSA"),  
(7,"Utsav","Pathak","Male",'2001-06-29,22',22,"New  
Mumbai",9199345213,501,107,102,103,"DSA"),  
(6,"Vipul","Takle","Male",'2002-10-05',21,"New Mumbai",7890936925,501,107,102,103,"DSA"),  
(5,"Pranay","Gadkari","Male",'1999-11-25',24,"Vashi",7383814752,501,107,102,103,"DSA"),  
(4,"Arpita","Tiware","Female",'2000-02-19',23,"Seawoods",9728964798,501,107,102,103,"DSA"),  
(3,"Nandan","Khatr","Male",'2002-01-26',21,"Belapur",9172710324,501,107,102,103,"DSA"),  
(2,"Mangesh","Shirke","Male",'2000-04-25',23,"Ghansoli",6289698654,501,107,102,103,"DSA"),  
(1,"Kedar","Kolhe","Male",'2002-09-16',21,"Rabale",7499574136,501,107,102,103,"DSA"),  
(20,"Sahil","Gaikar","Male",'2002-05-11',21,"Seawoods",8895580429,502,105,102,103,"DSA"),  
(19,"Amit","Kadam","Male",'2001-08-30',22,"New Mumbai",9883807482,502,106,102,103,"DSA"),  
(18,"Atharv","Kale","Male",'2002-12-06',21,"Vashi",9311141101,502,106,102,103,"DSA"),  
(17,"Dhaval","Dalavi","Male",'2000-05-18',23,"Juinagar",7042153556,502,106,102,103,"DSA"),  
(16,"Hemant","Pansare","Male",'1999-12-24',24,"Mahape",9300005474,502,106,102,103,"DSA"),  
(15,"Jayesh","Mohite","Male",'2001-07-22',22,"Mahape",9064764227,502,106,102,103,"DSA"),  
(14,"Praful","Raut","Male",'2002-04-01',22,"Kopar Khairne",7033054768,502,106,102,103,"DSA"),  
(13,"Rajesh","Singh","Male",'2000-02-08',23,"Vashi",9142719158,502,106,102,103,"DSA"),  
(12,"Sanjog","Bhoite","Male",'2002-05-25',21,"Belapur",8637384947,502,106,102,103,"DSA"),  
(11,"Salim","Sheikh","Male",'2001-07-13',22,"Vashi",9433875781,502,106,102,103,"DSA"),  
(10,"Bela","Patil","Female",'2002-03-12',21,"Mumbai",9835821266,502,106,102,103,"DSA"),  
(9,"Anvi","Shirke","Female",'2001-11-05',22,"Belapur",7675904816,502,106,102,103,"DSA"),  
(8,"Sumedh","Joshi","Male",'1998-07-15',25,"Ghansoli",9339098223,502,106,102,103,"DSA"),  
(7,"Aakash","Khatr","Male",'1999-08-20',24,"Jui Nagar",7667445579,502,106,102,103,"DSA"),  
(6,"Aaditi","Sharma","Female",'2002-04-28',21,"Mumbai",9883366500,502,106,102,103,"DSA"),  
(5,"Advik","Shukla","Male",'2000-07-10',23,"Navi Mumbai",6287773656,502,106,102,103,"DSA"),  
(4,"Rohan","Malik","Male",'2001-09-01',22,"Vashi",9688107002,502,106,102,103,"DSA"),  
(3,"Sanket","Tiware","Male",'2002-10-05',21,"Kalyan",8927280847,502,106,102,103,"DSA"),  
(2,"Shri","Mudgalkar","Female",'2001-10-02',22,"Vashi",7091228567,502,106,102,103,"DSA"),  
(1,"Utkarsh","Kamat","Male",'2000-04-20',23,"Turbhe",9585110592,502,106,102,103,"DSA"),  
(10,"Mayur","Suryawanshi","Male",'2001-07-  
12',22,"Dombivali",7894216320,501,1001,102,103,"FS"),  
(11,"Bhaskar","Sharma","Male",'2002-06-03',21,"Thane",7769123654,501,1001,102,103,"FS"),  
(12,"Rizwan","Khan","Male",'1997-10-14',26,"Kalwa",884567321,501,1001,102,103,"FS"),  
(13,"Sagar","Ks","Male",'1999-04-19',24,"Kalyan",9745632187,501,1001,102,103,"FS"),  
(14,"Abdullah","Shaikh","Male",'2002-12-14',22,"Airoli",7764123789,501,1001,102,103,"FS"),  
(15,"Sudeepti","Singh","Female",'2003-07-08',20,"Thane",9967415263,501,1001,102,103,"FS"),  
(16,"Shubham","Khandagale","Male",'2000-09-13',23,"Powai",23,501,1001,102,103,"FS"),  
(17,"Varun","Sanas","Male",'2002-09-18',22,"Dombivali",7896543210,501,1001,102,103,"FS"),  
(18,"Anuj","Zode","Male",'1997-05-28',26,"Thane",9856416320,501,1001,102,103,"FS"),  
(19,"Sharad","Upalkar","Male",'2002-09-12',21,"Mumbai",7208350412,501,1001,102,103,"FS"),  
(20,"Pranit","Dubal","Male",'1997-11-30',26,"Kalyan",9224171891,501,1001,102,103,"FS");

➤ **Insert values into Portal :**

```
INSERT INTO Portal VALUES(201,70,70,70,1,107,102,103),
(202,60,60,60,2,107,102,103),
(203,50,50,50,3,107,102,103),
(204,100,100,100,4,107,102,103),
(205,90,90,90,5,107,102,103),
(206,80,80,80,6,107,102,103),
(207,70,70,70,7,107,102,103),
(208,60,60,60,8,107,102,103),
(209,50,50,50,9,107,102,103),
(210,100,100,10,19,107,102,103),
(211,60,60,60,11,107,102,103),
(212,50,50,50,12,107,102,103),
(213,100,100,100,13,107,102,103),
(214,90,90,90,14,107,102,103),
(215,80,80,80,15,107,102,103),
(216,70,70,70,16,107,102,103),
(217,60,60,60,17,107,102,103),
(218,50,50,50,18,107,102,103),
(219,100,100,100,19,107,102,103),
(220,90,90,90,20,107,102,103),
(201,70,70,70,1, 105,102,103),
(202,60,60,60,2, 105,102,103),
(203,50,50,50,3, 105,102,103),
(204,100,100,100,4, 105,102,103),
(205,90,90,90,5, 105,102,103),
(206,80,80,80,6, 105,102,103),
(207,70,70,70,7, 105,102,103),
(208,60,60,60,8, 105,102,103),
(209,50,50,50,9, 105,102,103),
(210,100,100,10,19, 105,102,103),
(211,60,60,60,11, 105,102,103),
(212,50,50,50,12, 105,102,103),
(213,100,100,100,13, 105,102,103),
(214,90,90,90,14, 105,102,103),
(215,80,80,80,15, 105,102,103),
(216,70,70,70,16, 105,102,103),
(217,60,60,60,17, 105,102,103),
(218,50,50,50,18, 105,102,103),
(219,100,100,100,19, 105,102,103),
(220,90,90,90,20, 105,102,103),
(201,70,70,70,1,104,102,103),
(202,60,60,60,2,104,102,103),
(203,50,50,50,3,104,102,103),
(204,100,100,100,4,104,102,103),
(205,90,90,90,5,104,102,103),
(206,80,80,80,6,104,102,103),
(207,70,70,70,7,104,102,103),
```

(208,60,60,60,8,104,102,103),  
(209,50,50,50,9,104,102,103),  
(210,100,100,10,19,104,102,103),  
(211,60,60,60,11,104,102,103),  
(212,50,50,50,12,104,102,103),  
(213,100,100,100,13,104,102,103),  
(214,90,90,90,14,104,102,103),  
(215,80,80,80,15,104,102,103),  
(216,70,70,70,16,104,102,103),  
(217,60,60,60,17,104,102,103),  
(218,50,50,50,18,104,102,103),  
(219,100,100,100,19,104,102,103),  
(220,90,90,90,20,104,102,103),  
(201,70,70,70,1,106,102,103),  
(202,60,60,60,2,106,102,103),  
(203,50,50,50,3,106,102,103),  
(204,100,100,100,4,106,102,103),  
(205,90,90,90,5,106,102,103),  
(206,80,80,80,6,106,102,103),  
(207,70,70,70,7,106,102,103),  
(208,60,60,60,8,106,102,103),  
(209,50,50,50,9,106,102,103),  
(210,100,100,10,19,106,102,103),  
(211,60,60,60,11,106,102,103),  
(212,50,50,50,12,106,102,103),  
(213,100,100,100,13,106,102,103),  
(214,90,90,90,14,106,102,103),  
(215,80,80,80,15,106,102,103),  
(216,70,70,70,16,106,102,103),  
(217,60,60,60,17,106,102,103),  
(218,50,50,50,18,106,102,103),  
(219,100,100,100,19,106,102,103),  
(220,90,90,90,20,106,102,103),  
(201,70,70,70,1,106,102,103),  
(202,60,60,60,2,106,102,103),  
(203,50,50,50,3,106,102,103),  
(204,100,100,100,4,106,102,103),  
(205,90,90,90,5,106,102,103),  
(206,80,80,80,6,106,102,103),  
(207,70,70,70,7,106,102,103),  
(208,60,60,60,8,106,102,103),  
(209,50,50,50,9,106,102,103),  
(210,100,100,10,19,106,102,103),  
(211,60,60,60,11,106,102,103),  
(212,50,50,50,12,106,102,103),  
(213,100,100,100,13,106,102,103),  
(214,90,90,90,14,106,102,103),  
(215,80,80,80,15,106,102,103),

(216,70,70,70,16,106,102,103),  
(217,60,60,60,17,106,102,103),  
(218,50,50,50,18,104,102,103),  
(219,100,100,100,19,104,102,103),  
(220,90,90,90,20,104,102,103),  
(201,70,70,70,1,104,102,103),  
(202,60,60,60,2,104,102,103),  
(203,50,50,50,3,104,102,103),  
(204,100,100,100,4,104,102,103),  
(205,90,90,90,5,104,102,103),  
(206,80,80,80,6,104,102,103),  
(207,70,70,70,7,104,102,103),  
(208,60,60,60,8,104,102,103),  
(209,50,50,50,9,104,102,103),  
(210,100,100,10,19,104,102,103),  
(211,60,60,60,11,104,102,103),  
(212,50,50,50,12,104,102,103),  
(213,100,100,100,13,104,102,103),  
(214,90,90,90,14,104,102,103),  
(215,80,80,80,15,104,102,103),  
(216,70,70,70,16,104,102,103),  
(217,60,60,60,17,104,102,103),  
(218,50,50,50,18,104,102,103),  
(219,100,100,100,19,104,102,103),  
(220,90,90,90,20,104,102,103),  
(201,70,70,70,1,105,102,103),  
(202,60,60,60,2,105,102,103),  
(203,50,50,50,3,105,102,103),  
(204,100,100,100,4,105,102,103),  
(205,90,90,90,5,105,102,103),  
(206,80,80,80,6,105,102,103),  
(207,70,70,70,7,105,102,103),  
(208,60,60,60,8,105,102,103),  
(209,50,50,50,9,105,102,103),  
(210,100,100,10,19,105,102,103),  
(211,60,60,60,11,105,102,103),  
(212,50,50,50,12,105,102,103),  
(213,100,100,100,13,105,102,103),  
(214,90,90,90,14,105,102,103),  
(215,80,80,80,15,105,102,103),  
(216,70,70,70,16,105,102,103),  
(217,60,60,60,17,105,102,103),  
(218,50,50,50,18,105,102,103),  
(219,100,100,100,19,105,102,103),  
(220,90,90,90,20,105,102,103);

## 5. Sub-queries:

- **Select Employees who have max salary and group by their Designation.**

```
SELECT first_name,last_name,designation,salary from t_employee WHERE salary in(SELECT max(salary) FROM t_employee GROUP BY designation);
```

**RESULT:**

first_name	last_name	designation	salary
Santosh	Bhosle	Branch Manager	75000
Roshan	Wankhede	Academic Head	40000
Rajni	Pandey	Academic Coordinator	30000
Rohidas	Shelar	Trainer	60000
Tejas	Kasare	Trainer	60000
Archana	Patil	Trainer	60000
Sanjay	Sharma	Trainer	60000

- **Select Students who have Max Attendance.**

```
SELECT a.first_name,a.last_name,b.attendance FROM t_sql_3to5_students a,t_student_portal_sql_3to5 b WHERE a.s_id=b.s_id in(select max(S_ID) from t_student_portal_sql_3to5);
```

**RESULT:**

first_name	last_name	attendance
Chaitanya	Gaikar	90

- **Select Students who have city Count more than 5.**

```
SELECT first_name,last_name,city FROM t_sql_3to5_students WHERE city in(SELECT city FROM t_sql_3to5_students GROUP BY city HAVING count(*)>5);
```

**RESULT:**

first_name	last_name	city
Chaitanya	Gaikar	Thane
Ameya	Parekh	Thane
Mansi	Shinde	Thane
Bhaskar	Sharma	Thane
Sudeepti	Singh	Thane
Anuj	Zode	Thane

- **Select student id who have minimum Attendance.**

```
select s_id from t_student_portal_sql_3to5 where ATTENDENCE in(SELECT min(attendance) from t_student_portal_sql_3to5);
```

**RESULT:**

s_id
6
12
18

## 5. JOINS:

- **Display list of all Students along with their course name and faculty name.**

```
SELECT
t_sql_3to5_students.FIRST_NAME,t_sql_3to5_students.LAST_NAME,courses.COURSE_NAME,t_employee.FIRST_NAME AS FACULTY_NAME FROM t_sql_3to5_students LEFT JOIN t_employee ON t_sql_3to5_students.F_ID=t_employee.E_ID inner join courses on t_sql_3to5_students.c_id=courses.c_id;
```

**RESULT :**



FIRST_NAME	LAST_NAME	COURSE_NAME	FACULTY_NAME
Chaitanya	Gaikar	MASTER IN FULL STACK DEVELOPMENT	Rohidas
Priyanshu	Nath	MASTER IN FULL STACK DEVELOPMENT	Rohidas
Prashant	Dumbre	MASTER IN FULL STACK DEVELOPMENT	Rohidas
Ameya	Parekh	MASTER IN FULL STACK DEVELOPMENT	Rohidas
Mansi	Shinde	MASTER IN FULL STACK DEVELOPMENT	Rohidas
Zeeshan	Vasta	MASTER IN FULL STACK DEVELOPMENT	Rohidas
Vrunda	Patil	MASTER IN FULL STACK DEVELOPMENT	Rohidas
Neelam	Khan	MASTER IN FULL STACK DEVELOPMENT	Rohidas
Alesha	Mathurkar	MASTER IN FULL STACK DEVELOPMENT	Rohidas
Mayur	Suryawanshi	MASTER IN FULL STACK DEVELOPMENT	Rohidas
Bhaskar	Sharma	MASTER IN FULL STACK DEVELOPMENT	Rohidas
Rizwan	Khan	MASTER IN FULL STACK DEVELOPMENT	Rohidas
Sagar	Ks	MASTER IN FULL STACK DEVELOPMENT	Rohidas
Abdullah	Shaikh	MASTER IN FULL STACK DEVELOPMENT	Rohidas
Sudeepti	Singh	MASTER IN FULL STACK DEVELOPMENT	Rohidas
Shubham	Khandagale	MASTER IN FULL STACK DEVELOPMENT	Rohidas
Varun	Sanas	MASTER IN FULL STACK DEVELOPMENT	Rohidas
Anuj	Zode	MASTER IN FULL STACK DEVELOPMENT	Rohidas
Sharad	Upalkar	MASTER IN FULL STACK DEVELOPMENT	Rohidas
Pranit	Dubal	MASTER IN FULL STACK DEVELOPMENT	Rohidas

- Display list of all students who are learning in two different batches with their batch name.

```
select t_sql_3to5_students.first_name,t_sql_3to5_students.last_name,a.MODULE_NAME,
t_dwd_3to5_students.FIRST_NAME,t_dwd_3to5_students.LAST_NAME,b.MODULE_NAME
from t_sql_3to5_students inner join t_batches as a on a.B_ID=t_sql_3to5_students.b_id
inner join t_dwd_3to5_students on t_sql_3to5_students.s_id=t_dwd_3to5_students.S_ID
inner join t_batches as b on t_dwd_3to5_students.B_ID=b.B_ID;
```

**RESULT :**

first_name	last_name	MODULE_NAME	FIRST_NAME	LAST_NAME	MODULE_NAME
Chaitanya	Gaikar	Foundation With SQL	Kishor	Kadam	DWD
Priyanshu	Nath	Foundation With SQL	Vinit	Sharma	DWD
Prashant	Dumbre	Foundation With SQL	Deepika	Malik	DWD
Ameya	Parekh	Foundation With SQL	Yash	Bhoite	DWD
Mansi	Shinde	Foundation With SQL	Megha	Patil	DWD
Zeeshan	Vasta	Foundation With SQL	Manasi	Deshmukh	DWD
Vrunda	Patil	Foundation With SQL	Aniket	Jadhav	DWD
Neelam	Khan	Foundation With SQL	Santosh	Mishra	DWD
Alesha	Mathurkar	Foundation With SQL	Leena	Singh	DWD
Mayur	Suryawanshi	Foundation With SQL	Shourya	Pathak	DWD
Bhaskar	Sharma	Foundation With SQL	Nilesh	Naik	DWD
Rizwan	Khan	Foundation With SQL	Suraj	Raut	DWD
Sagar	Ks	Foundation With SQL	Pradeep	Shinde	DWD
Abdullah	Shaikh	Foundation With SQL	Sameer	Khote	DWD
Sudeepti	Singh	Foundation With SQL	Shashank	Kamble	DWD
Shubham	Khandagale	Foundation With SQL	Uday	Kolhe	DWD
Varun	Sanas	Foundation With SQL	Shilpa	Kamat	DWD
Anuj	Zode	Foundation With SQL	Vishal	Tambe	DWD
Sharad	Upalkar	Foundation With SQL	Sachin	Mehta	DWD
Pranit	Dubal	Foundation With SQL	Mahesh	Suratkar	DWD

- **Display last 10 Student information who are learning into two different batches with their Batch name and Faculty name.**

```
SELECT s.s_id,S.first_name,S.last_name,a.MODULE_NAME,e1.FIRST_NAME as FACULTY_NAME,
d.s_id,D.FIRST_NAME,D.LAST_NAME,b.MODULE_NAME,e2.FIRST_NAME as FACULTY_NAME
from t_sql_3to5_students as S inner join t_batches as a on a.B_ID=S.b_id inner join t_employee
as e1 on s.f_id=e1.e_id
inner join t_dwd_3to5_students as D on S.s_id=D.S_ID inner join t_employee as e2 on
d.f_id=e2.e_id
inner join t_batches as b on D.B_ID=b.B_ID limit 10,20;
```

**RESULT :**

s_id	first_name	last_name	MODULE_NAME	FACULTY_NAME	s_id	FIRST_NAME	LAST_NAME	MODULE_NAME	FACULTY_NAME
11	Bhaskar	Sharma	Foundation With SQL	Rohidas	11	Nilesh	Naik	DWD	Archana
12	Rizwan	Khan	Foundation With SQL	Rohidas	12	Suraj	Raut	DWD	Archana
13	Sagar	Ks	Foundation With SQL	Rohidas	13	Pradeep	Shinde	DWD	Archana
14	Abdullah	Shaikh	Foundation With SQL	Rohidas	14	Sameer	Khote	DWD	Archana
15	Sudeepti	Singh	Foundation With SQL	Rohidas	15	Shashank	Kamble	DWD	Archana
16	Shubham	Khandagale	Foundation With SQL	Rohidas	16	Uday	Kolhe	DWD	Archana
17	Varun	Sanas	Foundation With SQL	Rohidas	17	Shilpa	Kamat	DWD	Archana
18	Anuj	Zode	Foundation With SQL	Rohidas	18	Vishal	Tambe	DWD	Archana
19	Sharad	Upalkar	Foundation With SQL	Rohidas	19	Sachin	Mehta	DWD	Archana
20	Pranit	Dubal	Foundation With SQL	Rohidas	20	Mahesh	Suratkar	DWD	Archana