



# ATMIYA University

Faculty of Science

Department of Computer Application

Master of Computer Application

**Code : 23MCACC107 | SubjectName: Databases Enterprise Applications**

**Name:-Jainish Barbhaya**

**Enrollment no:-15618223014**

-- Question 1: Students and Courses Tables -----

-- create table in coureses-----

```
DROP TABLE Courses PURGE;
create table Courses(
    course_id number primary key,
    course_name varchar2(100)
);
```

-- create table in student-----

```
DROP TABLE Students PURGE;
create table Students(
    student_id number primary key,
    student_name varchar2(50) ,
    enrollment_date date ,
    course_id number,
    foreign key (course_id) references Courses
);
```

----- Courses Table Insert Questions:

-----

```
insert into Courses(course_id,course_name)
VALUES (201,'Database Management');
```

```
insert into Courses(course_id,course_name)
VALUES (202,'Web Development');
```

```
insert into Courses(course_id,course_name)
VALUES (203,'Programming Fundamentals');
```

```
insert into Courses(course_id,course_name)
```



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```
VALUES (204, 'Data Structures');
```

```
insert into Courses(course_id,course_name)
```

```
VALUES (205, 'Software Engineering');
```

```
insert into Courses(course_id,course_name)
```

```
VALUES (206, 'Network Security');
```

```
insert into Courses(course_id,course_name)
```

```
VALUES (207, 'Artificial Intelligence');
```

```
insert into Courses(course_id,course_name)
```

```
VALUES (208, 'Mobile App Development');
```

```
insert into Courses(course_id,course_name)
```

```
VALUES (209, 'Operating Systems');
```

```
insert into Courses(course_id,course_name)
```

```
VALUES (210, 'Computer Graphics');
```

----- Students Table Insert Questions: -----

```
insert into Students(student_id,student_name,enrollment_date,course_id)
```

```
VALUES (101, 'John Smith', '15-sep-2022', 201);
```

```
insert into Students(student_id,student_name,enrollment_date,course_id)
```

```
VALUES (102, 'Mary Johnson', '20-aug-2022', 202);
```

```
insert into Students(student_id,student_name,enrollment_date,course_id)
```

```
VALUES (103, 'David Wilson', '10-oct-2022', 203);
```

```
insert into Students(student_id,student_name,enrollment_date,course_id)
```

```
VALUES (104, 'Jessica Brown', '05-jul-2022', 204);
```



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```
insert into Students(student_id,student_name,enrollment_date,course_id)
VALUES (105,'Emily Davis','30-nov-2022',205);
```

```
insert into Students(student_id,student_name,enrollment_date,course_id)
VALUES (106,'Daniel Miller','12-jun-2022',206);
```

```
insert into Students(student_id,student_name,enrollment_date,course_id)
VALUES (107,'Olivia Harris','25-dec-2022',207);
```

```
insert into Students(student_id,student_name,enrollment_date,course_id)
VALUES (108,'Liam Martinez','08-may-2022',208);
```

```
insert into Students(student_id,student_name,enrollment_date,course_id)
VALUES (109,'Ava Jones','18-apr-2022',209);
```

```
insert into Students(student_id,student_name,enrollment_date,course_id)
VALUES (110,'Noah Anderson','02-mar-2022',210);
```

----- Question 2: Employees and Departments Tables -----

-- create table in Departments-----

```
DROP TABLE Departments PURGE;
create table Departments(
    department_id number primary key,
    department_name varchar2(100)
);
```

-- create table in Employees-----

```
DROP TABLE Employees PURGE;
create table Employees(
```



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```
employee_id number primary key,  
first_name varchar2(50),  
last_name varchar2(50),  
department_id number,  
salary number,  
foreign key (department_id) references Departments  
);
```

----- Departments Table Insert Questions: -----

```
insert into Departments (department_id, department_name)  
VALUES (101, 'Information Technology');  
  
insert into Departments (department_id, department_name)  
VALUES (102, 'Human Resources');  
  
insert into Departments (department_id, department_name)  
VALUES (103, 'Marketing');  
  
insert into Departments (department_id, department_name)  
VALUES (104, 'Finance');  
  
insert into Departments (department_id, department_name)  
VALUES (105, 'Operations');  
  
insert into Departments (department_id, department_name)  
VALUES (106, 'Research and Development');  
  
insert into Departments (department_id, department_name)  
VALUES (107, 'Customer Support');  
  
insert into Departments (department_id, department_name)  
VALUES (108, 'Sales');
```



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```
insert into Departments (department_id, department_name)
VALUES (109, 'Quality Assurance');
```

```
insert into Departments (department_id, department_name)
VALUES (110, 'Legal Affairs');
```

----- Employees Table Insert Questions: -----

```
insert into
Employees (employee_id, first_name, last_name, department_id, salary)
VALUES (1001, 'John', 'Smith', 101, 60000.00);
```

```
insert into
Employees (employee_id, first_name, last_name, department_id, salary)
VALUES (1002, 'Mary', 'Johnson', 102, 55000.00);
```

```
insert into
Employees (employee_id, first_name, last_name, department_id, salary)
VALUES (1003, 'David', 'Wilson', 103, 62000.00);
```

```
insert into
Employees (employee_id, first_name, last_name, department_id, salary)
VALUES (1004, 'Jessica', 'Brown', 101, 58000.00);
```

```
insert into
Employees (employee_id, first_name, last_name, department_id, salary)
VALUES (1005, 'Emily', 'Smith', 102, 61000.00);
```

```
insert into
Employees (employee_id, first_name, last_name, department_id, salary)
VALUES (1006, 'Daniel', 'Miller', 103, 54000.00);
```



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```
insert into
Employees(employee_id,first_name,last_name,department_id,salary)
VALUES (1007,'Olivia','Harris',101,59000.00);
```

```
insert into
Employees(employee_id,first_name,last_name,department_id,salary)
VALUES (1008,'Liam','Martinez',102,57000.00);
```

```
insert into
Employees(employee_id,first_name,last_name,department_id,salary)
VALUES (1009,'Ava','Jones',103,63000.00);
```

```
insert into
Employees(employee_id,first_name,last_name,department_id,salary)
VALUES (1010,'Noah','Anderson',101,56000.00);
```

-- Question 3: Orders and Customers Tables-----

-- create table in Customers-----

```
DROP TABLE Customers PURGE;
create table Customers(
    customer_id number primary key,
    customer_name varchar2(100),
    email varchar2(100)
);
```

-- create table in Orders-----

```
DROP TABLE Orders PURGE;
create table Orders(
    order_id number primary key,
```



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```
order_date date,  
customer_id number,  
foreign key (customer_id) references Customers  
);
```

-- Question 4: Authors and Books Tables-----

-- create table in Authors-----

```
DROP TABLE Authors PURGE;  
create table Authors(  
    author_id number primary key,  
    author_name varchar2(100),  
    nationality varchar2(50)  
);
```

-- create table in Books-----

```
DROP TABLE Books PURGE;  
create table Books(  
    book_id number primary key,  
    book_title varchar2(200),  
    author_id number,  
    foreign key (author_id) references Authors  
);
```

===== Students Table Select Queries: =====

1. Retrieve the names of all students in the Students table.

```
SELECT student_name FROM Students;
```



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OP:

STUDENT\_NAME

John Smith  
Mary Johnson  
David Wilson  
Jessica Brown  
Emily Davis  
Daniel Miller  
Olivia Harris  
Liam Martinez  
Ava Jones  
Noah Anderson

10 rows selected.

2.Find the students who were enrolled before January 1, 2022.

**SELECT \* FROM Students WHERE enrollment\_date < '1-jan-2022';**

OP:

STUDENT_ID	STUDENT_NAME	ENROLLMENT_DATE	COURSE_ID
101	John Smith	15-09-22	201
102	Mary Johnson	20-08-22	202
103	David Wilson	10-10-22	203
104	Jessica Brown	05-07-22	204
105	Emily Davis	30-11-22	205
106	Daniel Miller	12-06-22	206
107	Olivia Harris	25-12-22	207
108	Liam Martinez	08-05-22	208
109	Ava Jones	18-04-22	209
110	Noah Anderson	02-03-22	210





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10 rows selected.

3. List the students whose names start with the letter 'D'.

```
SELECT * FROM Students WHERE student_name LIKE 'D%';
```

OP:

STUDENT_ID	STUDENT_NAME	ENROLLMENT_DATE	COURSE_ID
103	David Wilson	10-10-22	203
106	Daniel Miller	12-06-22	206

4.Display the count of students in the Students table.

```
SELECT COUNT(*) as student_count FROM Students;
```

OP:

STUDENT_COUNT
10

5.Find the student with the highest student\_id.

```
select max(student_id) from Students;
```

OP:

STUDENT_ID
110