**DATA MANIPULATION LANGUAGE CHECKPOINT:**

**Instructions:**

Here is the list of records we are going to use:

**Department**

* Num\_S = 1, Label = "IT", Manager\_Name = "Alice Johnson"
* Num\_S = 2, Label = "HR", Manager\_Name = "Bob Smith"
* Num\_S = 3, Label = "Marketing", Manager\_Name = "Clara Bennett"

**Employee**

* Num\_E = 101, Name = "John Doe", Position = "Developer", Salary = 60000.00, Department\_Num\_S = 1
* Num\_E = 102, Name = "Jane Smith", Position = "Analyst", Salary = 55000.00, Department\_Num\_S = 2
* Num\_E = 103, Name = "Mike Brown", Position = "Designer", Salary = 50000.00, Department\_Num\_S = 3
* Num\_E = 104, Name = "Sarah Johnson", Position = "Data Scientist", Salary = 70000.00, Department\_Num\_S = 1
* Num\_E = 105, Name = "Emma Wilson", Position = "HR Specialist", Salary = 52000.00, Department\_Num\_S = 2

**Project**

* Num\_P = 201, Title = "Website Redesign", Start\_Date = "2024-01-15", End\_Date = "2024-06-30", Department\_Num\_S = 1
* Num\_P = 202, Title = "Employee Onboarding", Start\_Date = "2024-03-01", End\_Date = "2024-09-01", Department\_Num\_S = 2
* Num\_P = 203, Title = "Market Research", Start\_Date = "2024-02-01", End\_Date = "2024-07-31", Department\_Num\_S = 3
* Num\_P = 204, Title = "IT Infrastructure Setup", Start\_Date = "2024-04-01", End\_Date = "2024-12-31", Department\_Num\_S = 1

**Employee\_Project (Roles)**

* Employee\_Num\_E = 101, Project\_Num\_P = 201, Role = "Frontend Developer"
* Employee\_Num\_E = 104, Project\_Num\_P = 201, Role = "Backend Developer"
* Employee\_Num\_E = 102, Project\_Num\_P = 202, Role = "Trainer"
* Employee\_Num\_E = 105, Project\_Num\_P = 202, Role = "Coordinator"
* Employee\_Num\_E = 103, Project\_Num\_P = 203, Role = "Research Lead"
* Employee\_Num\_E = 101, Project\_Num\_P = 204, Role = "Network Specialist"

**Instructions**

1. **Insert Records:**Write the appropriate SQL queries to insert all the provided records into their respective tables.
2. **Update a Record:**Update the Role of Employee\_Num\_E = 101 in the Employee\_Project table to "Full Stack Developer".
3. **Delete a Record:**Delete the employee with Num\_E = 103 from the Employee table and remove their corresponding entries in the Employee\_Project table

**Answer:**

1. **Insert Records:**Write the appropriate SQL queries to insert all the provided records into their respective tables.

**Department**

* Num\_S = 1, Label = "IT", Manager\_Name = "Alice Johnson"
* Num\_S = 2, Label = "HR", Manager\_Name = "Bob Smith"
* Num\_S = 3, Label = "Marketing", Manager\_Name = "Clara Bennett"
* INSERT INTO Department (Num\_S, Label, Manager\_Name) VALUES
* (1, 'IT', 'Alice Johnson'),
* (2, 'HR’, 'Bob Smith'),
* (3, 'Marketing', 'Clara Bennet');

**Employee**

* Num\_E = 101, Name = "John Doe", Position = "Developer", Salary = 60000.00, Department\_Num\_S = 1
* Num\_E = 102, Name = "Jane Smith", Position = "Analyst", Salary = 55000.00, Department\_Num\_S = 2
* Num\_E = 103, Name = "Mike Brown", Position = "Designer", Salary = 50000.00, Department\_Num\_S = 3
* Num\_E = 104, Name = "Sarah Johnson", Position = "Data Scientist", Salary = 70000.00, Department\_Num\_S = 1
* Num\_E = 105, Name = "Emma Wilson", Position = "HR Specialist", Salary = 52000.00, Department\_Num\_S = 2
* INSERT INTO Employee (Num\_E, Name, Position, Salary) VALUES
* (101, ‘John Doe’, ‘Developer’, 60000.00),
* (102, 'Jane Smith', 'Analyst', 55000.00),
* (103, 'Mike Brown', 'Designer', 50000.00),
* (104, 'Sarah Johnson', 'Data Scientist', 70000.00),
* (105, 'Emma Wilson', 'HR Specialist', 52000.00);

**Project**

* Num\_P = 201, Title = "Website Redesign", Start\_Date = "2024-01-15", End\_Date = "2024-06-30", Department\_Num\_S = 1
* Num\_P = 202, Title = "Employee Onboarding", Start\_Date = "2024-03-01", End\_Date = "2024-09-01", Department\_Num\_S = 2
* Num\_P = 203, Title = "Market Research", Start\_Date = "2024-02-01", End\_Date = "2024-07-31", Department\_Num\_S = 3
* Num\_P = 204, Title = "IT Infrastructure Setup", Start\_Date = "2024-04-01", End\_Date = "2024-12-31", Department\_Num\_S = 1
* INSERT INTO Project (Num\_P, Title, Start\_Date, End\_Date, Department\_NUM\_S) VALUES
* (201, ‘Website Redesign’, ‘2024-01-15’, ‘2024-06-30’, 1),
* (202, 'Employee Onboarding', ‘2024-03-01’, ‘2024-09-01’, 2),
* (203, 'Market Research', ‘2024-02-01’, ‘2024-07-31’, 3),
* (204, 'IT Infrastructure Setup', ‘2024-04-01’, ‘2024-12-31’, 1);

**Employee\_Project (Roles)**

* Employee\_Num\_E = 101, Project\_Num\_P = 201, Role = "Frontend Developer"
* Employee\_Num\_E = 104, Project\_Num\_P = 201, Role = "Backend Developer"
* Employee\_Num\_E = 102, Project\_Num\_P = 202, Role = "Trainer"
* Employee\_Num\_E = 105, Project\_Num\_P = 202, Role = "Coordinator"
* Employee\_Num\_E = 103, Project\_Num\_P = 203, Role = "Research Lead"
* Employee\_Num\_E = 101, Project\_Num\_P = 204, Role = "Network Specialist"
* INSERT INTO Employee\_Project (Employee\_Num\_E, Project\_Num\_P, Roles) VALUES
* (101, 201, ‘Frontend Developer’),
* (104, 201, ‘Backend Developer’),
* (102, 202, ‘Trainer’),
* (105, 202, ‘Coordinator’),
* (103, 203, ‘Research Lead’),
* (101, 204, ‘Network Specialist’);

1. **Update a Record:**Update the Role of Employee\_Num\_E = 101 in the Employee\_Project table to "Full Stack Developer".

* UPDATE Employee\_Project
* SET Role = ‘Full Stack Developer’,
* WHERE Employee\_Num\_E = 101;

1. **Delete a Record:**Delete the employee with Num\_E = 103 from the Employee table and remove their corresponding entries in the Employee\_Project table

* DELETE FROM ‘Employee’
* WHERE Num\_E = 103;
* DELETE FROM ‘Employee\_Project’
* WHERE Employee\_Num\_E = 103;