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BSIT 3-A

# SQL statements for (Task 1-5)

Task 1: Create a Table named employees.

```
CREATE TABLE employees (
    employee_id INT AUTO_INCREMENT PRIMARY KEY,
    employee_name VARCHAR(255) NOT NULL,
    manager_id INT NULL,
    CONSTRAINT fk_employees_manager
      FOREIGN KEY (manager_id)
      REFERENCES employees(employee_id)
      ON DELETE SET NULL
      ON UPDATE CASCADE
) ENGINE=InnoDB;
```

Task 2: Create a Table named departments.

```
CREATE TABLE departments (
    department_id INT AUTO_INCREMENT PRIMARY KEY,
    department_name VARCHAR(255) NOT NULL
) ENGINE=InnoDB;
```

Task 3: Create a Table named employee_departments.

```sql
CREATE TABLE employee_departments (
    employee_id INT NOT NULL,
    department_id INT NOT NULL,
    PRIMARY KEY (employee_id, department_id),
    CONSTRAINT fk_empdept_employee
      FOREIGN KEY (employee_id)
      REFERENCES employees(employee_id)
      ON DELETE CASCADE
      ON UPDATE CASCADE,
    CONSTRAINT fk_empdept_department
      FOREIGN KEY (department_id)
      REFERENCES departments(department_id)
      ON DELETE CASCADE
      ON UPDATE CASCADE
) ENGINE=InnoDB;
```

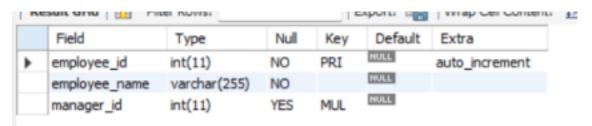Task 4: Create a Table named employee_projects.

```sql
37   CREATE TABLE employee_projects (
38       employee_id INT NOT NULL,
39       project_name VARCHAR(255) NOT NULL,
40       PRIMARY KEY (employee_id, project_name),
41       CONSTRAINT fk_empproj_employee
42         FOREIGN KEY (employee_id)
43         REFERENCES employees(employee_id)
44         ON DELETE CASCADE
45         ON UPDATE CASCADE
46   ) ENGINE=InnoDB;
```

Task 5: Create a Table named managers.

```sql
CREATE TABLE managers (
    manager_id INT AUTO_INCREMENT PRIMARY KEY,
    employee_id INT NOT NULL,
    CONSTRAINT fk_managers_employee
      FOREIGN KEY (employee_id)
      REFERENCES employees(employee_id)
      ON DELETE CASCADE
      ON UPDATE CASCADE
) ENGINE=InnoDB;
```
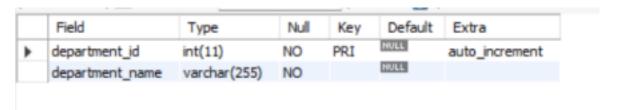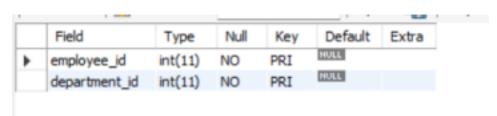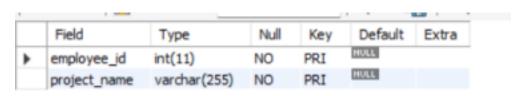
# TABLE STRUCTURES

Employees Table:

| Field | Type | Null | Key | Default | Extra |
|---|---|---|---|---|---|
| employee_id | int(11) | NO | PRI | NULL | auto_increment |
| employee_name | varchar(255) | NO | | NULL | |
| manager_id | int(11) | YES | MUL | NULL | |

Departments Table:

| Field | Type | Null | Key | Default | Extra |
|---|---|---|---|---|---|
| department_id | int(11) | NO | PRI | NULL | auto_increment |
| department_name | varchar(255) | NO | | NULL | |

employee_dept Table:

| Field | Type | Null | Key | Default | Extra |
|---|---|---|---|---|---|
| employee_id | int(11) | NO | PRI | NULL | |
| department_id | int(11) | NO | PRI | NULL | |

employee_projects Table:

| Field | Type | Null | Key | Default | Extra |
|---|---|---|---|---|---|
| employee_id | int(11) | NO | PRI | NULL | |
| project_name | varchar(255) | NO | PRI | NULL | |

Managers Table:

| Field | Type | Null | Key | Default | Extra |
|---|---|---|---|---|---|
| manager_id | int(11) | NO | PRI | NULL | auto_increment |
| employee_id | int(11) | NO | MUL | NULL | |