Database Management System Assignment

Part 1: Table Creation and Insertion

1. **Create Tables:**
   - Create two tables, `Departments` and `Employees`, using the provided schema.
   - `Departments` should have columns: `DepartmentID` (Primary Key), `DepartmentName`.
   - `Employees` should have columns: `EmployeeID` (Primary Key), `EmployeeName`, `DepartmentID` (Foreign Key referencing `Departments`).
2. **Insert Data:**
   - Insert at least three records into the `Departments` table.
   - Insert at least four records into the `Employees` table, ensuring that each employee is associated with a department.

Part 2: Foreign Key Constraints

3. **Foreign Key Constraints:**
   - Implement foreign key constraints on the `DepartmentID` column in the `Employees` table, referencing the `DepartmentID` column in the `Departments` table.

Part 3: Update and Delete Scenarios

4. **Update Scenarios:**
   - Update the `DepartmentID` of an existing department in the `Departments` table.
   - Observe and document the changes in the `Employees` table due to the foreign key constraint.
5. **Delete Scenarios:**
   - Delete a department from the `Departments` table.
   - Document the impact on the `Employees` table due to the `ON DELETE SET NULL` clause.

Submission Guidelines:

- Submit the SQL script containing the queries for creating tables, inserting data, and implementing foreign key constraints.
- Include comments explaining the purpose of each query and any observations made during the update and delete scenarios.

- Submit the assignment as a text document or code file.

Note: Ensure that your SQL script is well-structured, and the queries are properly commented for clarity.