Constraints

Easy (Questions 1-10)

1. **Create a table named `Employees` with columns `EmployeeID` (int, primary key), `FirstName` (varchar(50)), and `LastName` (varchar(50)).**
2. **Add a `NOT NULL` constraint to the `FirstName` column in the `Employees` table.**
3. **Add a `CHECK` constraint to the `EmployeeID` column to ensure it is greater than 0.**
4. **Create a table named `Departments` with columns `DepartmentID` (int, primary key) and `DepartmentName` (varchar(50), not null).**
5. **Add a `UNIQUE` constraint to the `DepartmentName` column in the `Departments` table.**
6. **Create a table named `Projects` with columns `ProjectID` (int, primary key), `ProjectName` (varchar(50), not null), and `DepartmentID` (int, foreign key referencing `Departments`).**
7. **Add a `CHECK` constraint to the `ProjectName` column to ensure it is not an empty string.**
8. **Create a table named `Salaries` with columns `SalaryID` (int, primary key), `EmployeeID` (int, foreign key referencing `Employees`), and `Amount` (decimal, not null).**
9. **Add a `CHECK` constraint to the `Amount` column to ensure it is greater than 0.**
10. **Add a `DEFAULT` constraint to the `Amount` column in the `Salaries` table with a default value of 50000.**

Medium (Questions 11-16)

1. **Create a table named `Timesheets` with columns `TimesheetID` (int, primary key), `EmployeeID` (int, foreign key referencing `Employees`), `Date` (date, not null), and `HoursWorked` (decimal, not null). Ensure `Date` is not a future date.**
2. **Add a `CHECK` constraint to the `HoursWorked` column to ensure it is between 0 and 24.**

3. **Create a table named `EmployeeProjects` with columns `EmployeeID` (int, foreign key referencing `Employees`), `ProjectID` (int, foreign key referencing `Projects`), and make the combination of `EmployeeID` and `ProjectID` unique.**
4. **Add a `CHECK` constraint to the `DepartmentName` column in the `Departments` table to ensure it does not contain numeric characters.**
5. **Create a table named `Leaves` with columns `LeaveID` (int, primary key), `EmployeeID` (int, foreign key referencing `Employees`), `StartDate` (date, not null), `EndDate` (date, not null). Ensure `EndDate` is after `StartDate`.**
6. **Add a `DEFAULT` constraint to the `StartDate` column in the `Leaves` table with a default value of the current date.**

Hard (Questions 17-20)

1. **Create a table named `Reviews` with columns `ReviewID` (int, primary key), `EmployeeID` (int, foreign key referencing `Employees`), `ReviewerID` (int, foreign key referencing `Employees`), `ReviewDate` (date, not null), and `Score` (int, not null). Ensure `EmployeeID` and `ReviewerID` are not the same.**
2. **Add a `CHECK` constraint to the `Score` column in the `Reviews` table to ensure it is between 1 and 5.**
3. **Create a table named `Assets` with columns `AssetID` (int, primary key), `AssetName` (varchar(50), not null), `PurchaseDate` (date, not null), and `EmployeeID` (int, foreign key referencing `Employees`). Ensure `PurchaseDate` is not a future date.**
4. **Create a table named `Budgets` with columns `BudgetID` (int, primary key), `DepartmentID` (int, foreign key referencing `Departments`), `Year` (int, not null), and `Amount` (decimal, not null). Ensure there is only one budget per department per year.**