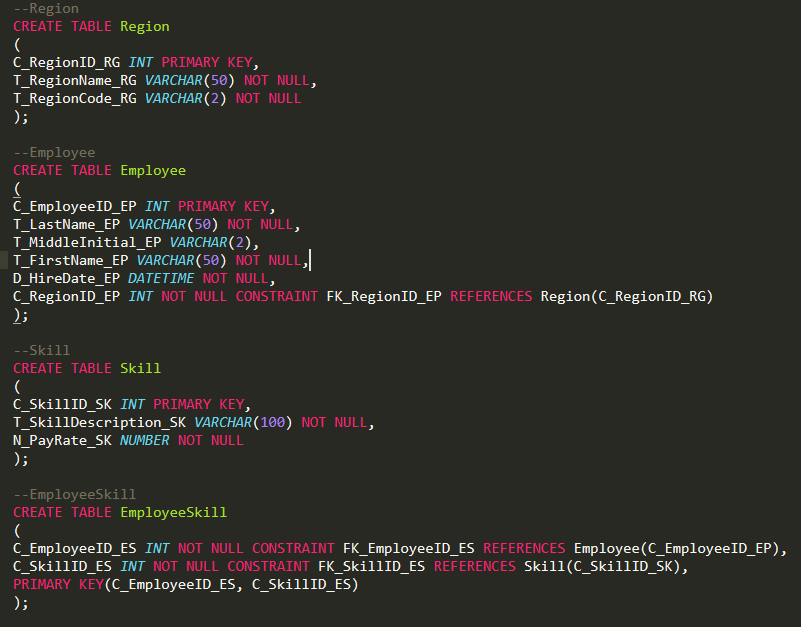
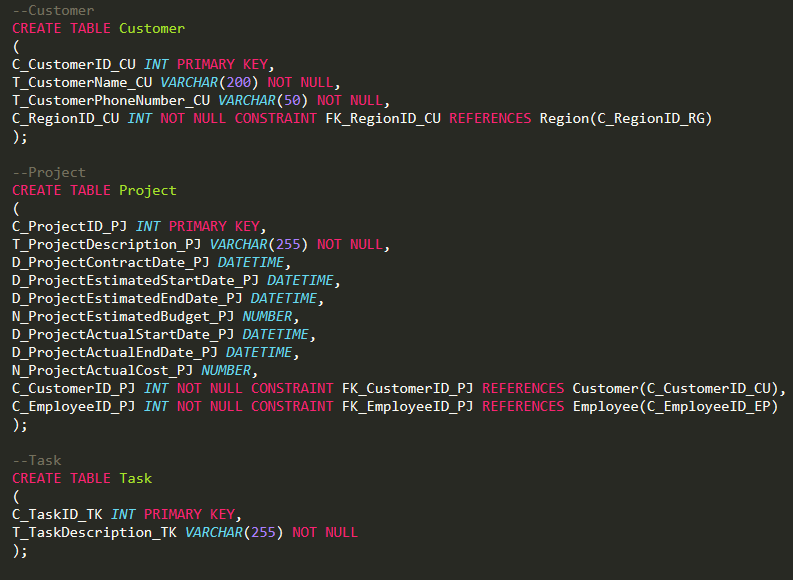
1. **Database Normalization Evaluation**

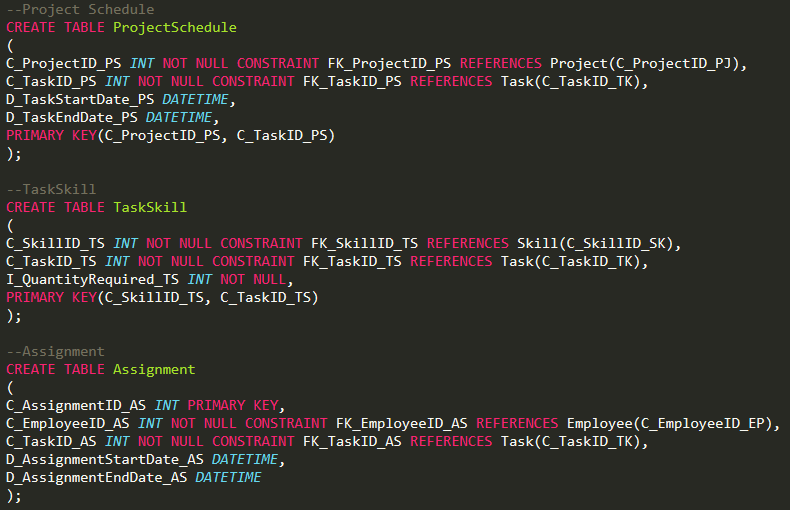
1NF: All tables are in 1NF as all attributes of each table are single valued. For example, for Customer table, if we have a customer that has multiple phone numbers, we are going to have two separate rows for that same customer, having the same information except for the T\_CustomerPhoneNumber\_CU column, it will have different value for each phone number.

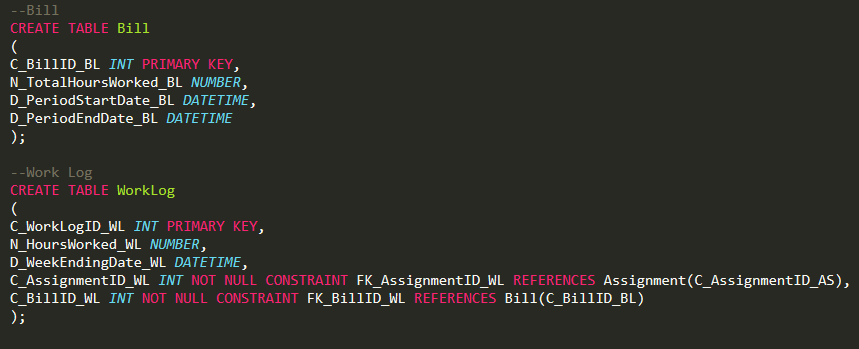
2NF: Since a partial dependency can exist only if a table's primary key is composed of several attributes and since all tables are in 1NF (as proved above) and have a single-attribute primary key (except for EmployeeSkill, ProjectSchedule, TaskSkill tables), then all tables are automatically in 2NF. EmployeeSkill, ProjectSchedule, TaskSkill are also still in 2NF because all of their non key attributes are fully functionally dependent on the primary key. So for ProjectSchedule table, D\_TaskStartDate\_PS and D\_TaskEndDate\_PS attributes are fully dependent on both C\_ProjectID\_PS and C\_TaskID\_PS primary keys not just on one of them. Similarly, for TaskSkill table, I\_QuantityRequired\_TS attributes are fully dependent on on both C\_SkillID\_TS and C\_TaskID\_TS primary keys. Lastly, for EmployeeSkill table, since it doesn’t have any non-primary attributes and all it has just C\_EmployeeID\_ES and C\_SkillID\_ES primary keys columns, it’s automatically in 2NF.

3NF:

1. **SQL DDL**







1. **Screenshots of the Database in Access DBMS**

