Ques.1: For the COMPANY database in Homework 2, and shown below with additional table (called DEPENDENTS), provide SQL queries for the following:

- List all project numbers associated with Smith, either as manager of a controlling department or as an employee working on the project.
- Find names of employees who work on the same project that Smith works on.
- Find names of employees who have no dependents.
- Find names of employees with at least two dependents.
- Find departments with at least 10 employees.
- Find average salary and department names, for each department (the average salary of a department is the average of all salaries of employees assigned to a department).
- Find the department number and name of the department with the largest average salary (of its employees).
- Give a 50% pay-cut to the employee with the highest salary.
CREATE TABLE EMP (
    SSN int PRIMARY KEY,
    Name Varchar(50),
    Birthdate Date,
    Street Varchar(50),
    City Varchar(50),
    DNO int,
    SuperSSN int,
    Salary Real,
    FOREIGN KEY (DNO) REFERENCES DEPT(DNUM),
    FOREIGN KEY (SuperSSN) REFERENCES EMP(SSN));

CREATE TABLE DEPT (
    DNUM int PRIMARY KEY,
    DNAME Varchar(50),
    MGRSSN int,
    UNIQUE DNAME,
    FOREIGN KEY (MGRSSN) REFERENCES EMP(SSN));

CREATE TABLE PROJECTS (
    PNum int PRIMARY KEY,
    Pname Varchar(50),
    Location Varchar(50),
    DNO int,
    FOREIGN KEY (DNO) REFERENCES DEPT(DNUM));

CREATE TABLE WORKS (
    ESSN int,
    PNO int,
    HOURS int,
    PRIMARY KEY (ESSN, PNO),
    FOREIGN KEY (ESSN) REFERENCES EMP(SSN),
    FOREIGN KEY (PNO) REFERENCES PROJECTS(PNUM));

CREATE TABLE DEPENDENT (
    ESSN int NOT NULL,
    DEPNAME Varchar(50) NOT NULL,
    SEX char,
    BDATE Date,
    RELATIONSHIP Varchar(10),
    PRIMARY KEY (ESSN, DEPNAME),
    FOREIGN KEY (ESSN) REFERENCES EMPLOYEE(SSN));