a)

INSERT INTO Skill (SkillName, Note)

VALUES

('Java', NULL),

('Python', NULL),

('Ruby', NULL),

('Front-end', NULL),

('PHP', NULL),

('SQL', NULL),

('C++', NULL),

('.NET', NULL);

INSERT INTO Department (DeptName, Note)

VALUES

('HR', NULL),

('IT', NULL),

('Finance', NULL),

('Marketing', NULL),

('Operations', NULL),

('Product Development', NULL),

('Customer Service', NULL),

('Sales', NULL);

INSERT INTO Employee (EmpNo, EmpName, BirthDay, DeptNo, MgrNo, StartDate, Salary, Status, Note, Level, Email)

VALUES

(1, 'Nguyen Van A', '2001-01-15', 1, '2', '2022-01-01', 60000, 1, NULL, 3, 'ANV@fsoft.com.vn'),

(2, 'Nguyen Ngoc B', '2001-03-20', 1, '8', '2022-02-15', 55000, 1, NULL, 2, 'BNN@fsoft.com.vn'),

(3, 'Vu Dinh C', '2002-05-11', 2, '5', '2023-08-15', 45000, 1, NULL, 2, 'CVD@fsoft.com.vn'),

(4, 'Quang Thi D', '1999-01-01', 3, '5', '2020-02-15', 65000, 0, NULL, 3, 'DQT@fsoft.com.vn'),

(5, 'Nguyen Thai E', '1997-07-25', 3, '8', '2019-02-15', 90000, 1, NULL, 2, 'ENT@fsoft.com.vn'),

(6, 'Nguyen Thanh F', '1985-06-24', 6, '2', '2017-02-15', 85000, 1, NULL, 4, 'FNT@fsoft.com.vn'),

(7, 'Ho Phuong G', '2000-10-27', 7, '2', '2021-09-15', 75000, 0, NULL, 2, 'GHP@fsoft.com.vn'),

(8, 'Dinh Thu H', '1990-08-08', 8, '0', '2023-08-01', 95000, 1, NULL, 4,'HDT@fsoft.com.vn');

INSERT INTO Emp\_Skill(SkillNo, EmpNo, SkillLevel, RegDate, Description)

VALUES

(1,1,3,'2019-01-01', ''),

(2,2,3,'2019-01-01', ''),

(3,3,3,'2018-01-01', ''),

(4,4,3,'2017-01-01', ''),

(5,5,3,'2016-01-01', ''),

(6,6,3,'2014-01-01', ''),

(7,7,3,'2017-01-01', ''),

(8,8,3,'2014-01-01', '');

b)

SELECT E.EmpName, E.Email, D.DeptName

FROM Employee E

JOIN Department D ON E.DeptNo = D.DeptNo

WHERE E.StartDate <= DATEADD(MONTH, -6, GETDATE());

c)

SELECT E.EmpName

FROM Employee E

JOIN Emp\_Skill ES ON E.EmpNo = ES.EmpNo

JOIN Skill S ON ES.SkillNo = S.SkillNo

WHERE S.SkillName IN ('C++', '.NET');

d)

SELECT E.EmpName, E.Email AS EmpEmail, M.EmpName AS ManagerName, M.Email AS ManagerEmail

FROM Employee E

JOIN Employee M ON E.MgrNo = M.EmpNo;

e)

SELECT D.DeptName

FROM Department D

JOIN Employee E ON D.DeptNo = E.DeptNo

GROUP BY D.DeptName

HAVING COUNT(\*) >= 2;

SELECT D.DeptName, E.EmpName

FROM Department D

JOIN Employee E ON D.DeptNo = E.DeptNo;

f)

SELECT E.EmpName, E.Email, ES.SkillNo

FROM Employee E

JOIN Emp\_Skill ES ON E.EmpNo = ES.EmpNo

ORDER BY E.EmpName ASC;

g)

CREATE VIEW Working\_Employees AS

SELECT E.EmpName, S.SkillName, D.DeptName

FROM Employee E

JOIN Emp\_Skill ES ON E.EmpNo = ES.EmpNo

JOIN Skill S ON ES.SkillNo = S.SkillNo

JOIN Department D ON E.DeptNo = D.DeptNo

WHERE E.Status = 1;

GO

SELECT \* FROM Working\_Employees;