

## SQL – Assignment

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Barem: Each sub-question is 10%.

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In the database design for the Employee Management System of ABC Company, given tables of the application with below:

EMPLOYEE:

- EmpNo: employee code, primary key.
- EmpName: employee name.
- BirthDay: birth day of the employee.
- DeptNo: department code of the employee.
- MgrNo: manager code, not null.
- StartDate: starting date of work.
- Salary: salary of the employee, data type is money (VND).
- Level: level of the employee (accepts value range from 1 to 7 only).
- Status: status of the employee (0: working, 1: unpaid leave, 2: out)
- Note: some note about employee, free text.

EMP\_SKILL:

- SkillNo: skill code, foreign key.
- EmpNo: employee code, foreign key.
- SkillLevel: skill level of the employee (accepts value range from 1 to 3 only).
- RegDate: registration date.
- Description: skill description, free text.

Promary key (SkillNo, EmpNo)

SKILL:

- SkillNo: skill code, primary key, auto increment.
- SkillName: name of skill.
- Note: some note about skill, free text.

DEPARTMENT:

- DeptNo: department code, primary key, auto increment.
- DeptName: department name.
- Note: some note about department, free text.

**Question 1:**

- a) Create EMPLOYEE table with the most appropriate/economic field/column constraints & types. All fields are mandatory except Note field.
- b) Create SKILL table with the most appropriate/economic field/column constraints & types, all fields are mandatory except Note field.

- c) Create DEPARTMENT table with the most appropriate/economic field/column constraints & types, all fields are mandatory except Note field.
- d) Create EMP\_SKILL table with the most appropriate/economic field/column constraints & types, all fields are mandatory except Description field.

**Question 2:**

- a) Add an Email field to EMPLOYEE table and make sure that the database will not allow the value for Email to be inserted into a new row if that value has already been used in another row.
- b) Modify EMPLOYEE table to set default values to 0 of MgrNo and Status fields.

**Question 3:**

- a) Add the FOREIGN KEY constrain of DeptNo field to the EMPLOYEE table that will relate the DEPARTMENT table.
- b) Remove the Description field from the EMP\_SKILL table.

**Question 4:**

- a) Add at least 5 records into each the created tables.
- b) Create a VIEW called EMPLOYEE\_TRACKING that will appear to the user as EmpNo, Emp\_Name and Level. It has Level satisfied the criteria: Level  $\geq 3$  and Level  $\leq 5$ .