

**NJC 2020 Revision Exercise**

- 1 A school directory stores information about schools and staff teaching in the schools. It allows users to query for staff information working in a particular school and department.

Information about a school includes:

- SchoolCode: a unique 4-digit number to identify the school.
- Name: name of the school.
- Address: address of the school

For staff working in schools, the following information is recorded:

- SchoolCode : schoolcode of the school the staff is working at
- Name: name of the staff
- Department: the department in the school the staff belongs to
- Contact: telephone number of the staff

It is assume that no staff working in the same school will have the same name.

The information described above is currently stored in two files:

- SCHOOL.TXT
- STAFF.TXT

**Task 1.1**

Create an SQL file called `TASK1_1_<class>_<name>.sql`. Write the SQL code to create the the **two tables** in the database named `schools.db`. You are to create the necessary primary, foreign keys and constraints in your SQL code.

Excute the SQL code in DB Browser to create the database and tables. [2]

**Task 1.2**

The files `SCHOOL.TXT` and `STAFF.TXT` contain information currently stored in the school directory system. Write Python code to migrate them to the database tables created in Task 1.1. The database tables should only contain the data in the two files.

Save your Python code as

`TASK1_2_<your name>_<NRIC number>.py` [2]

**Task 1.3**

Write Python code in the file `main.py` to generate a web form that allows a user to search for staff/s using two fields:

- Name of School
  - Department
- a) The web form should be the default page when you access the web application
- b) The search field for Name of School should allow for partial match. Example, the search for a school named "High" should return
- NTU High School
  - Queens High School

The search field for Department should be an exact match. [3]

**Task 1.4**

Write Python code in the file `main.py` to:

- a) return a HTML page that contains a table showing the results of the query

**Task 1.3.**

- b) The information to be returned are:
- Name of school
  - Name of staff
  - Department
  - Contact
  - Address of school
- c) The format of the results should look like:

School	Name	Department	Contact	Address
Queens High Schhol	Melisa	Math	92468341	2 Queenstown
Queens High Schhol	Yolande	Math	97135073	2 Queenstown
NTU High Schhol	Uriel	Math	98946212	12 Nanyang Ave
NTU High Schhol	Caprice	Math	92780890	12 Nanyang Ave

[3]

**END**