

- 4 A computer company has several offices throughout Singapore, each with several salespersons. Each salesperson is assigned to one office only. A record of the sales made by each salesperson has been set up using a relational database.

The following tables hold the data:

```
CUSTOMER (CustomerID, CustomerName, Email, Telephone)
OFFICE (OfficeID, PostalCode, Telephone)
SALE (SalesPersonID*, CustomerID*, SaleDate, Amount)
SALESPERSON (SalesPersonID, SalesPersonName, OfficeID*)
```

**Note:** Underlined field indicates primary key. Asterisk (\*) indicates a foreign key.

#### Task 4.1

Write the SQL code to create the four tables in the database named `computercompany.db`.

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Save the SQL file as `TASK4_1_<your class>_<your name>.sql`.

#### Task 4.2

The files `CUSTOMER.CSV`, `OFFICE.CSV`, `SALE.CSV` and `SALESPERSON.CSV` contain information exported by their spreadsheets files. Write Python code to migrate them to the database.

Save your Python code as `TASK4_2_<your class>_<your name>.py`.

[6]

#### Task 4.3

Write SQL code to show the `SaleDate`, `SalesPersonName`, `CustomerName` and `Amount` of all sale transactions performed at the office with ID 1.

Save the SQL file as `TASK4_3_<your class>_<your name>.sql`.

[4]

#### Task 4.4

A report is produced to show the top salesperson in each office each month. Write Python code to:

- generate a web form that allows a user to enter the month (1 to 12) and year,
- use the data submitted by the web form to query the database, and
- return a HTML page with the report displayed.

The following is a sample report for March, 2020.

Top Performers in March 2020		
Office ID	Salesperson	Total Amount S\$
1	Low Kok Kheong	7880
2	Mindy Tan	6935
3	Monish Chandra	10700

[Turn over

Save your Python program as `TASK4_4_<your class>_<your name>.py` with any additional files/ sub-folders as needed in a zipped folder named `Task4_<your class>_<your name>.zip`.

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**Task 4.5**

Deploy the web app on your local host and enter the following data:

- month – 8, and
- year – 2020.

Save the screenshot of table generated as `TASK4_5_<your class>_<your name>.jpg`.

[2]