Test cases for the Task D/E

1. Prompting for the first time, asking for the date.

```
PS C:\Users\nadeesha\Desktop\Assignment-SD1> & C:/Users/nadeesha/AppData/Local/Programs/Python/Python313/python.exe "c:/Users/nadeesha/Desktop/Assignment-SD1/w21
20076/Task DE(integrated).py"

Enter the date in DD format: 15

Enter the month in MM format: 06

Enter the year in YYYY format: 2024

Valid date entered 15/06/2024

data file selected is traffic_data15062024.csv
The total number of vehicles recorded for this date is 1037
The total number of trucks recorded for this date is 109
The total number of electric vehicles recorded for this date is 368
The total number of two-wheeled vehicles recorded for this date is 401
The total number of buses leaving Elm Avenue/Rabbit Road heading North is 15
The total number of Vehicles through both junctions without turning left or right is 363
The percentage of total vehicles recorded that are trucks for this date is 11%
The average number of bikes per hour for this date is 7
The total number of vehicles recorded as over the speed limit for this date is 205
The total number of vehicles recorded through Elm Avenue/Rabbit Road junction is 494
The total number of vehicles recorded through Hanley Highway/Westway junction is 543
11% of vehicles recorded through Elm Avenue/Rabbit Road are scooters
The highest number of vehicles in an hour on Hanley Highway/Westway is 39
The most vehicles through Hanley Highway/Westway were recorded between 18:00 - 19:00
The number of hours of rain for this date is 0

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Outcomes saved to the results.txt successfully.
Dataset for 15/06/2024 loaded successfully.
```
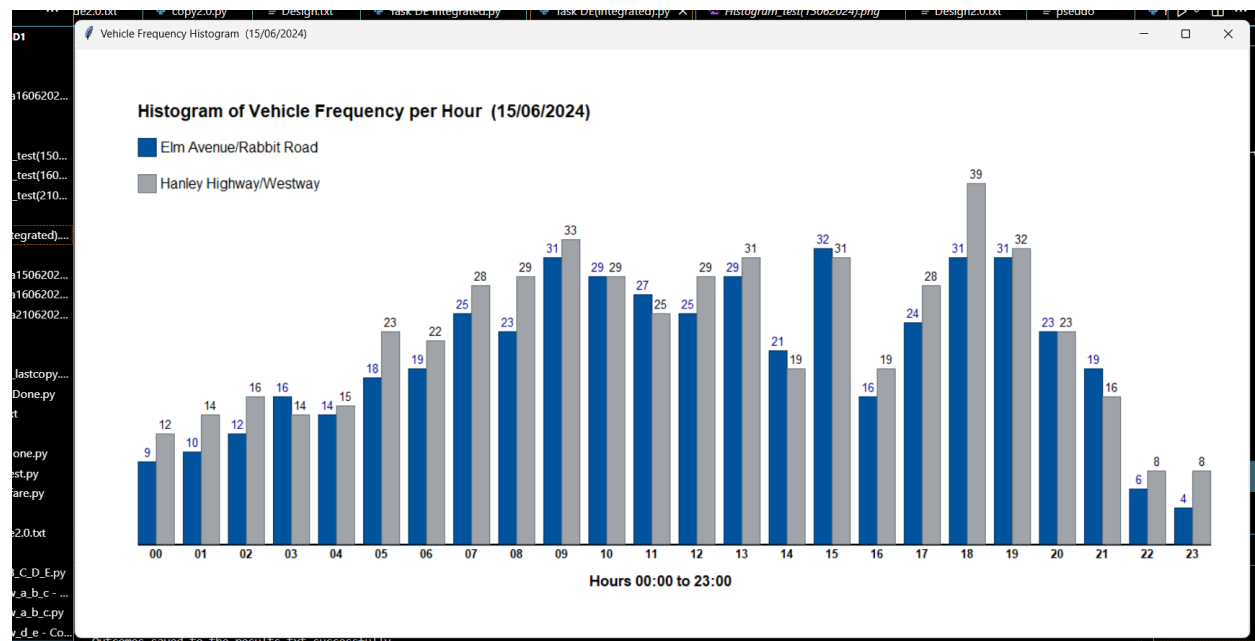
Displaying relevant histogram (Task D):

2. Asking the user if he wants to repeat the program (Task E), and if user prefers to repeat the program repeat the same program from the beginning otherwise ends the program.

```
Do you wish to load another dataset ('Y' for Yes or 'N' for No): y

Enter the date in DD format: 16

Enter the month in MM format: 06

Enter the year in YYYY format: 2024

Valid date entered 16/06/2024

data file selected is traffic_data16062024.csv
The total number of vehicles recorded for this date is 101
The total number of trucks recorded for this date is 11
The total number of electric vehicles recorded for this date is 29
The total number of two-wheeled vehicles recorded for this date is 29
The total number of buses leaving Elm Avenue/Rabbit Road heading North is 0
The total number of Vehicles through both junctions without turning left or right is 38
The percentage of total vehicles recorded that are trucks for this date is 11%
The average number of bikes per hour for this date is 0
The total number of vehicles recorded as over the speed limit for this date is 20
The total number of vehicles recorded through Elm Avenue/Rabbit Road junction is 52
The total number of vehicles recorded through Hanley Highway/Westway junction is 49
6% of vehicles recorded through Elm Avenue/Rabbit Road are scooters
The highest number of vehicles in an hour on Hanley Highway/Westway is 3
The most vehicles through Hanley Highway/Westway were recorded between 11:00 - 12:00
The number of hours of rain for this date is 3

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Outcomes saved to the results.txt successfully.
Dataset for 16/06/2024 loaded successfully.
```
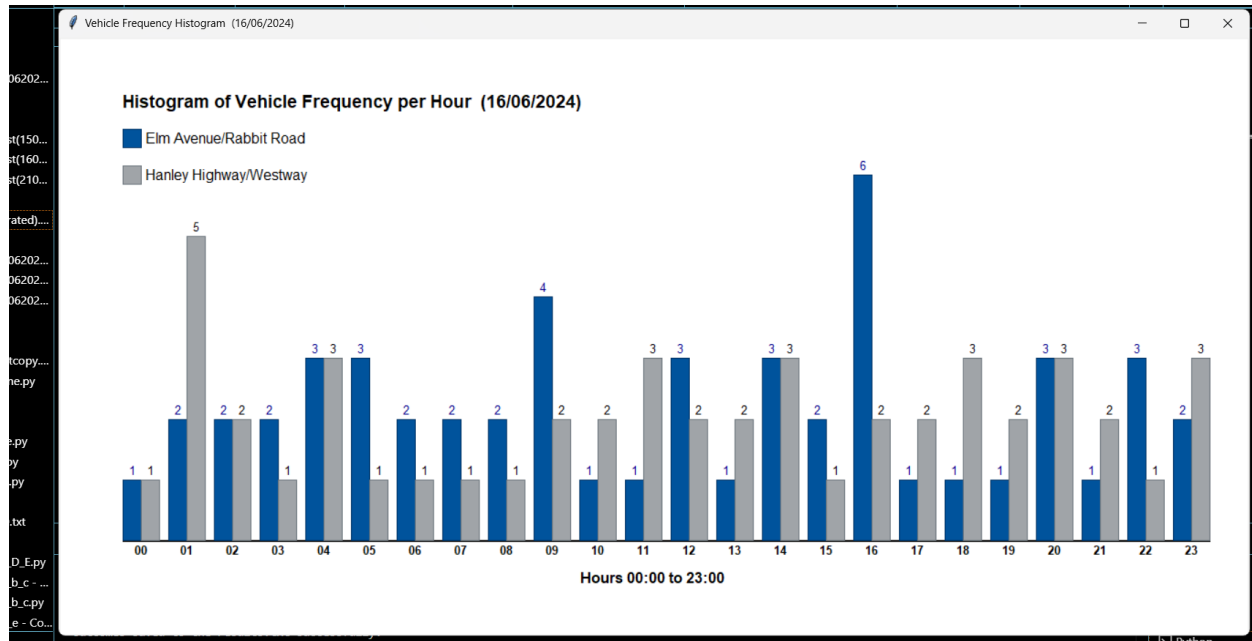
Histogram related to the above input:

Histogram of Vehicle Frequency per Hour (16/06/2024)

```
Do you wish to load another dataset ('Y' for Yes or 'N' for No): y

Enter the date in DD format: 21

Enter the month in MM format: 06

Enter the year in YYYY format: 2024

Valid date entered 21/06/2024

data file selected is traffic_data21062024.csv
The total number of vehicles recorded for this date is 1334
The total number of trucks recorded for this date is 138
The total number of electric vehicles recorded for this date is 442
The total number of two-wheeled vehicles recorded for this date is 503
The total number of buses leaving Elm Avenue/Rabbit Road heading North is 19
The total number of Vehicles through both junctions without turning left or right is 494
The percentage of total vehicles recorded that are trucks for this date is 10%
The average number of bikes per hour for this date is 10
The total number of vehicles recorded as over the speed limit for this date is 250
The total number of vehicles recorded through Elm Avenue/Rabbit Road junction is 651
The total number of vehicles recorded through Hanley Highway/Westway junction is 683
10% of vehicles recorded through Elm Avenue/Rabbit Road are scooters
The highest number of vehicles in an hour on Hanley Highway/Westway is 71
The most vehicles through Hanley Highway/Westway were recorded between 18:00 - 19:00
The number of hours of rain for this date is 6

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Outcomes saved to the results.txt successfully.
Dataset for 21/06/2024 loaded successfully.

Do you wish to load another dataset ('Y' for Yes or 'N' for No): n
End of run.
```


Histogram of Vehicle Frequency per Hour (21/06/2024)