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Date: 10/12/2024

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Outcomes

15/6/2024

```
*IDLE Shell 3.12.6*
File Edit Shell Debug Options Window Help
Python 3.12.6 (tags/v3.12.6:a4a2d2b, Sep 6 2024, 20:11:23) [MSC v.1940 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\Users\CHAMA COMPUTERS\Documents\Coursework 1\san.py
Please enter the date in the format dd: 15
Please enter the month in the format MM: 6
Enter the year: 2024
The valid date is 15/6/2024
*****
The selected data file 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 for this date is 368
The total number of two-wheeled vehicles for this date is 401
The total number of Busses leaving Elm Avenue/Rabbit Road heading North is 15
The total number of vehicles passing 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 Bicycles 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
10% 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 and 19:00
The number of hours of rain for this date is 0
Do you want to select another data file for a different date? Y/N |
```

16/6/2024

```
*IDLE Shell 3.12.6*
File Edit Shell Debug Options Window Help

Python 3.12.6 (tags/v3.12.6:a4a2d2b, Sep 6 2024, 20:11:23) [MSC v.1940 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\Users\CHAMA COMPUTERS\Documents\Coursework 1\san.py
Please enter the date in the format dd: 16
Please enter the month in the format MM: 6
Enter the year: 2024
The valid date is 16/6/2024
*****
The selected data file 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 for this date is 29
The total number of two-wheeled vehicles for this date is 29
The total number of Busses leaving Elm Avenue/Rabbit Road heading North is 0
The total number of vehicles passing 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 Bicycles 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
5% of vehicles recorded through Elm Avenue/Rabbit Road are scooters.
The highest number of vehicles in an hour on Hanley Highway/Westway is 5
The most vehicles through Hanley Highway/Westway were recorded between 01:00 and 02:00
The number of hours of rain for this date is 3
Do you want to select another data file for a different date? Y/N |
```

21/6/2024

```
*IDLE Shell 3.12.6*
File Edit Shell Debug Options Window Help

Python 3.12.6 (tags/v3.12.6:a4a2d2b, Sep 6 2024, 20:11:23) [MSC v.1940 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\Users\CHAMA COMPUTERS\Documents\Coursework 1\san.py
Please enter the date in the format dd: 21
Please enter the month in the format MM: 6
Enter the year: 2024
The valid date is 21/6/2024
*****
The selected data file 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 for this date is 442
The total number of two-wheeled vehicles for this date is 503
The total number of Busses leaving Elm Avenue/Rabbit Road heading North is 19
The total number of vehicles passing 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 Bicycles 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
9% 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 and 19:00
The number of hours of rain for this date is 6
Do you want to select another data file for a different date? Y/N
```

Validation

Date

```
Please enter the date in the format dd: 32
Out of range - values must be in the range 1 and 31.
Please enter the date in the format dd: fg
Integer required
Please enter the date in the format dd:
```

Month

```
Please enter the month in the format MM: 13
Out of range - values must be in the range 1-12.
Please enter the month in the format MM: rr
Integer required
Please enter the month in the format MM: |
```

Year

```
Please enter the month in the format MM: 6
Enter the year: 2025
Out of range - values must be in the range 2000-2024.
Enter the year: gg
Integer required
Enter the year: |
```

Separate date

```
Please enter the date in the format dd: 21
Please enter the month in the format MM: 3
Enter the year: 2024
The valid date is 21/3/2024

Error: The file does not exist.
*****
file not found
Do you want to select another data file for a different date? Y/N
```

Text file

15/6/2024

```
*****

The selected data file is traffic_data15062024.csv
*****

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The total number of electric vehicles for this date is 368
The total number of two-wheeled vehicles for this date is 401
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The percentage of total vehicles recorded that are trucks for this date is 11%
The average number of Bicycles 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
10% 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 number of hours of rain for this date is 0
```

16/6/2024

```
*****

The selected data file 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 for this date is 29
The total number of two-wheeled vehicles for this date is 29
The total number of Busses leaving Elm Avenue/Rabbit Road heading North is 0
The total number of vehicles passing 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 Bicycles 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
5% of vehicles recorded through Elm Avenue/Rabbit Road are scooters.
The highest number of vehicles in an hour on Hanley Highway/Westway is 5
The number of hours of rain for this date is 3
```

21/6/2024

The selected data file 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 for this date is 442

The total number of two-wheeled vehicles for this date is 503

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The percentage of total vehicles recorded that are trucks for this date is 10%

The average number of Bicycles 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

9% 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 number of hours of rain for this date is 6