ECM1421 TEST REPORT

Where possible unit tests have been written, however with user input it's simpler to do manual testing

ENTER POSTCODE

```
(venv) emilyperegrine @ ECM1421-CA2 (postcode_restrictions) $ python street_level_crime/app.py
STREET CRIME IN DEVON
COMMANDS:
 HELP: Outputs An Instructions Document.
 QUIT: Quits The Program.
 RESTART: Restarts The Program.

Please, enter postcode (e.g. EX4 4QJ)
no
Please, check your postcode. It must be a valid UK format (e.g. EX4 4QJ)
Please, enter postcode (e.g. EX4 4QJ)
DT57 87Q
Please, check your postcode. It must be a valid UK format (e.g. EX4 4QJ)
Please, enter postcode (e.g. EX4 4QJ)
EX8 9KL
Your postcode could not be found
Please, enter postcode (e.g. EX4 4QJ)
EX4 4QJ
(50.73514518, -3.53506244)
```

Value	Expected	Actual
No	Invalid format	Invalid format
DT57 87Q	Invalid format	Invalid format
EX8 9KL	Not found	Not found
EX4 4QJ	~(50.7351, -3.5350)	~(50.7351, -3.5350)

ENTER RADIUS

```
Please, select distance from postcode centre:
 [1] 1km
 [2] 2km
 [3] 5km
no
Please, select a number from 1 to 3
Please, select distance from postcode centre:
 [1] 1km
 [2] 2km
 [3] 5km
0
Please, select a number from 1 to 3
Please, select distance from postcode centre:
 [1] 1km
 [2] 2km
 [3] 5km
4
Please, select a number from 1 to 3
Please, select distance from postcode centre:
 [1] 1km
 [2] 2km
 [3] 5km
2
Please, select sort option (number 1 to 3):
 [1] By disatnce from the postcode centre
```

Value	Expected	Actual
No	Ask again	Ask again
0	Ask again	Ask again
4	Ask again	Ask again
2	Next question	Next question

ENTER SORT OPTIION

```
Please, select sort option (number 1 to 3):
 [1] By disatnce from the postcode centre
 [2] By date (most recent first)
 [3] Crime category
no
Please, select a number from 1 to 3
Please, select sort option (number 1 to 3):
 [1] By disatnce from the postcode centre
 [2] By date (most recent first)
 [3] Crime category
0
Please, select a number from 1 to 3
Please, select sort option (number 1 to 3):
 [1] By disatnce from the postcode centre
 [2] By date (most recent first)
 [3] Crime category
4
Please, select a number from 1 to 3
Please, select sort option (number 1 to 3):
 [1] By disatnce from the postcode centre
 [2] By date (most recent first)
 [3] Crime category
2
8961 crimes found
```

Value	Expected	Actual
No	Ask again	Ask again
0	Ask again	Ask again
4	Ask again	Ask again
2	Show crimes found	Show crimes found

TEST FILE NAME

```
6844 crimes found
A file path example /Users/emilyperegrine
Please, enter a path to destination folder: not_here
Path to directory doesn't exist. Please, try again.
A file path example /Users/emilyperegrine
Please, enter a path to destination folder:
Using relative path: /Users/emilyperegrine/Documents/Uni/ECM1421_SystemsDevelopment1/CA2/
Please enter a file name: dest/fake
Wrong! Path cant contain the following characters: < (less than) , > (greater than) , : (colon) , " (double qu
 ? (question mark) , * (asterisk)
Please enter a file name: test
File name accepted
File Created: test.csv
```

TEST HELP COMMAND

```
Please, enter postcode (e.g. EX4 4QJ)
help
SYSTEM INSTRUCTIONS:
 [1] You will be asked to input a postcode, make sure this is an EX postcode as the program does not accept other areas.
 [2] Then you need to select the distance of crimes you want to display, you will get the option to display crimes in a 1, 2 or 5KM radius (You need to type 1 for 1km, 2 for 2KM or 3 for 5KM.)
 [3] You can then select the way the data is sorted, by distance, date and category of the crime. (You need to type 1 for distance, 2 for date or 3 for category)
 [4] And then you can select where the data will be saved to. This will be a file path located on your computer (e.g. C:\Users\Name)
 [5] Finally, you can enter a name that you want the file to be saved as (E.G. Crime_Data,  NOTE: The file name already has the '.csv' extension added)
 Then your file will be saved for you to use.
COMMANDS:
 HELP: Outputs An Instructions Document.
 QUIT: Quits The Program.
 RESTART: Restarts The Program.

Please, enter postcode (e.g. EX4 4QJ)
ex44qj
(50.73514518, -3.53506244)
Please, select distance from postcode centre:
 [1] 1km
 [2] 2km
 [3] 5km
help
SYSTEM INSTRUCTIONS:
 [1] You will be asked to input a postcode, make sure this is an EX postcode as the program does not accept other areas.
 [2] Then you need to select the distance of crimes you want to display, you will get the option to display crimes in a 1, 2 or 5KM radius (You need to type 1 for 1km, 2 for 2KM or 3 for 5KM.)
 [3] You can then select the way the data is sorted, by distance, date and category of the crime. (You need to type 1 for distance, 2 for date or 3 for category)
 [4] And then you can select where the data will be saved to. This will be a file path located on your computer (e.g. C:\Users\Name)
 [5] Finally, you can enter a name that you want the file to be saved as (E.G. Crime_Data,  NOTE: The file name already has the '.csv' extension added)
 Then your file will be saved for you to use.
COMMANDS:
 HELP: Outputs An Instructions Document.
 QUIT: Quits The Program.
 RESTART: Restarts The Program.

Please, select distance from postcode centre:
 [1] 1km
 [2] 2km
 [3] 5km
```

Test the help command on all the questions

TEST RESTART COMMAND

```
Please, select distance from postcode centre:
 [1] 1km
 [2] 2km
 [3] 5km
3
Please, select sort option (number 1 to 3):
 [1] By disatnce from the postcode centre
 [2] By date (most recent first)
 [3] Crime category
restart

 RESTARTING PROGRAM

STREET CRIME IN DEVON
COMMANDS:
 HELP: Outputs An Instructions Document.
 QUIT: Quits The Program.
 RESTART: Restarts The Program.

Please, enter postcode (e.g. EX4 4QJ)
```

TEST QUIT COMMAND

```
STREET CRIME IN DEVON
COMMANDS:
 HELP: Outputs An Instructions Document.
 QUIT: Quits The Program.
 RESTART: Restarts The Program.

Please, enter postcode (e.g. EX4 4QJ)
quit
(venv) emilyperegrine @ ECM1421-CA2 (postcode_restrictions) $
(venv) emilyperegrine @ ECM1421-CA2 (postcode_restrictions) $
```

TEST ORDER

Distance

Then I need to check the first few lines to find the order

Distance
0.048124762
0.048124762
0.048124762
0.048124762
0.048124762
0.048124762
0.048124762
0.098151925
0.098151925
0.098151925
0.098151925
0.098151925
0.098151925
0.221638192
0.246411438

Date

```
STREET CRIME IN DEVON
COMMANDS:
 HELP: Outputs An Instructions Document.
 QUIT: Quits The Program.
 RESTART: Restarts The Program.

Please, enter postcode (e.g. EX4 4QJ)
ex44qj
(50.73514518, -3.53506244)
Please, select distance from postcode centre:
 [1] 1km
 [2] 2km
 [3] 5km
1
Please, select sort option (number 1 to 3):
 [1] By disatnce from the postcode centre
 [2] By date (most recent first)
 [3] Crime category
2
869 crimes found
A file path example /Users/emilyperegrine
Please, enter a path to destination folder: /Users/emilyperegrine/crime_data
Path accepted
Please enter a file name: date_ex44qj
File name accepted
File Created: date_ex44qj.csv
```

41	26ad0a0aec8	2019-12
42	2d5ddfbfa72	2019-12
43	1cbc480f5c5	2019-11
44		2019-11
45		2019-11
46		2019-11
47	52081089f80	2019-11

Category

```
STREET CRIME IN DEVON
COMMANDS:
 HELP: Outputs An Instructions Document.
 QUIT: Quits The Program.
 RESTART: Restarts The Program.

Please, enter postcode (e.g. EX4 4QJ)
ex44qj
(50.73514518, -3.53506244)
Please, select distance from postcode centre:
 [1] 1km
 [2] 2km
 [3] 5km
1
Please, select sort option (number 1 to 3):
 [1] By disatnce from the postcode centre
 [2] By date (most recent first)
 [3] Crime category
3
869 crimes found
A file path example /Users/emilyperegrine
Please, enter a path to destination folder: /Users/emilyperegrine/crime_data
Path accepted
Please enter a file name: category_ex44qj
File name accepted
File Created: category_ex44qj.csv
```

Anti-social behaviour
Anti-social behaviour
Bicycle theft
Bicycle theft
Bicycle theft
Bicycle theft
Bicycle theft
Bicycle theft
Bicycle theft
Bicycle theft
Bicycle theft
Bicycle theft
Bicycle theft
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Bicycle theft
Bicycle theft
Bicycle theft
Bicycle theft
Bicycle theft
Bicycle theft
Bicycle theft
Bicycle theft
Bicycle theft
Bicycle theft
Burglary
Burglary
Burglary

TEST RADIUS

1KM

```
Please, select distance from postcode centre:
 [1] 1km
 [2] 2km
 [3] 5km
1
Please, select sort option (number 1 to 3):
 [1] By disatnce from the postcode centre
 [2] By date (most recent first)
 [3] Crime category
1
869 crimes found
```

We can see that increasing the radius increases the amount of crimes found

2KM

```
Please, select distance from postcode centre:
 [1] 1km
 [2] 2km
 [3] 5km
2
Please, select sort option (number 1 to 3):
 [1] By disatnce from the postcode centre
 [2] By date (most recent first)
 [3] Crime category
1
6844 crimes found
```

5KM

```
Please, select distance from postcode centre:
 [1] 1km
 [2] 2km
 [3] 5km
3
Please, select sort option (number 1 to 3):
 [1] By disatnce from the postcode centre
 [2] By date (most recent first)
 [3] Crime category
1
9727 crimes found
```