

CHALLENGE 1: TURTLE FACE

SUGGESTED TIME: 30 MINUTES

A text file is provided which describes the shapes used to draw a picture. An artist would like a program which can read in the data from the file and draw it on screen.

The file should read in each line of the text file. An example of the text file is shown below:

```
# draw face
circle,yellow,0,0,100

# draw eyes
circle,white,20,150,20
circle,white,-20,150,20
circle,black,20,150,10
circle,black,-20,150,10

# draw mouth
circle,red,0,50,30
```

Example text file

A valid line of the text file starts with the word circle. Anything that does not start with the word circle is considered invalid and the program should display a message saying that it has been ignored.

Valid lines of the text file should also contain the colour of the circle, the x and y coordinate and the radius of the circle.

For example, when the program processes the text file above, it should display the following output:

```
Invalid shape detected: # draw face
Invalid shape detected:
Invalid shape detected: # draw eyes
Invalid shape detected:
Invalid shape detected: # draw mouth
```



Example program

output

Using the file Q06.py:

Amend the code to read the text file and display the circles and messages as shown above.

You should use constants, local variables and sub programs, whitespace and comments.

Do **not** add any additional functionality

Save your file in the COMPLETED_CODING folder as **Q06_FINISHED.py**

A self marking online version of this challenge can be found here:

<https://blog.withcode.uk/2022/05/q6-python-exam-practice-questions-for-edexcel-gcse-computer-science>