

Vocabulary	Meaning
consent	agreement, approval or permission for something to happen
privacy	the right to choose about how we share personal information
verification	to confirm the truth or accuracy of a statement
function	a basic task in a code, one that corresponds to a single instruction from the user
axis	the y axis travels from top to bottom and the x axis travel across left to right
random	where a program selects an unknown number to be placed in a code
data	facts collected together over a period of time
render	to display the collected data onto the screen in a chosen format
value	the importance or usefulness of something
compass	an instrument which indicates different directions such as North, South, East or West
command	to order or instruct a program to perform the action
indent	start (a line of text) or position (a block of text) further from the margin than the main piece of text
JSON	pronounced Jason, the name of the format used to present data that is "live" right now

Key knowledge – Python - how to?

Create colours:

You can set colours (for this example it is a turtle) by saying how much red, green and blue you would like from 0 to 255.

```
from turtle import *
shape("turtle")
color(150, 0, 150)
```



The code above creates purple.

Create a pie chart:

First import the Pygal library: `import pygal`

Now let's create a blank Pie chart and render (display) it:

```
piechart = pygal.Pie()
piechart.render()
```

Let's add in the data for one of the pets.

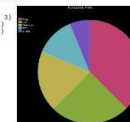
```
import pygal
piechart = pygal.Pie()
piechart.add('Dog', 8)
piechart.render()
```



There's only one piece of data so it takes up the whole pie chart.

Now add the rest of the data in the same way and add a title

```
import pygal
piechart = pygal.Pie()
piechart.title = 'Favourite Pets'
piechart.add('Dog', 8)
piechart.add('Cat', 4)
piechart.add('Hamster', 3)
piechart.add('Fish', 2)
piechart.add('Snake', 1)
piechart.render()
```

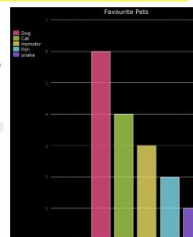


Hashtag out those lines that render charts (so that they aren't displayed):

```
piechart = pygal.Pie()
piechart.title = 'Favourite Pets'
piechart.add('Dog', 8)
piechart.add('Cat', 4)
piechart.add('Hamster', 3)
piechart.add('Fish', 2)
piechart.add('Snake', 1)
#piechart.render()
```

Copy the code over and change 'pie' to 'bar' to convert the data into a bar graph

```
barchart = pygal.Bar()
barchart.title = 'Favourite Pets'
barchart.add('Dog', 8)
barchart.add('Cat', 4)
barchart.add('Hamster', 3)
barchart.add('Fish', 2)
barchart.add('Snake', 1)
barchart.render()
```



Create a bar chart: