



## Step 2 What you will need

---

### Hardware

- A computer capable of accessing the **trinket.io** (<https://trinket.io>) website

### Software

This project can be completed in a web browser using **trinket.io** (<https://trinket.io>)

## Step 3 Saying hello

Let's start by writing some text.

- Open the blank Python template trinket: [jumpto.cc/python-new](http://jumpto.cc/python-new) (<http://jumpto.cc/python-new>).
- Type the following into the window that appears:

```
< > main.py
1 #!/bin/python3
2
3 print('Hello!')
```

The line `#!/bin/python3` just tells Trinket that we're using Python 3 (the latest version).

- Click **Run**, and you should see that the `print()` command prints everything between the quote marks `' '`.

```
main.py +  Powered by trinket
1 #!/bin/python3
2
3 print('Hello!')
```

Output: Hello!

If you've made a mistake, you'll get an error message telling you what went wrong instead!

- Try it! Delete the end quote `'` or the closing bracket `)` (or both) and see what happens.

```
main.py +  Powered by trinket
1 #!/bin/python3
2
3 print('Hello|
```

ParseError: bad token on line 3 in main.py

- Add the quote or bracket back in, and click **Run** to make sure your project works again.

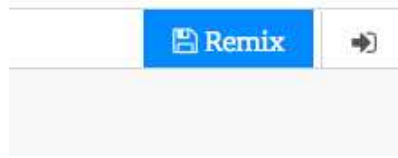
### You don't need a Trinket account to save your projects!

If you don't have a Trinket account, click the down arrow and then click **Link**. This will give you a link that you can save and come back to later. You'll need to do this every time you make changes, as the link will change!

```
main.py +  Powered by trinket
1 #!/bin/python3
2
3 print('Hello!')
```

Dropdown menu: Twitter, Facebook, G+ Google+, Email, **Link**, Embed

If you have a Trinket account, you can click **Remix** to save your own copy of the trinket.



## Step 4 Challenge: What's on your mind?

---

Change the code you just wrote to print something more interesting about you!

```
Hi, I can code in Python!
```

## Step 5 ASCII art

Let's print something much more fun than text: ASCII art! ASCII art (pronounced 'ask-e') is creating **pictures out of text**.

- Let's add some art to your program – a picture of a dog!

```
#!/bin/python3

print('Hello!')

print('Here's a picture of a dog:')
print(' o____ ')
print('  |||| ')
```

The dog's legs are made using the pipe character | which you can type by pressing Shift + \ on most UK/US English keyboards.

- If you click **Run**, you'll see that there's a bug in your new code.

```
print('Here's a picture of a dog:')
print(' o____ ')
print('  |||| ')
```

That's because your text contains an apostrophe ', which Python thinks is the end of the text!


```
print('Here's a picture of a dog:')
```

- To fix this, just put a backslash \ before the apostrophe in the word here's. This tells Python that the apostrophe is part of the text.

```
#!/bin/python3

print('Hello!')

print('Here\'s a picture of a dog:')
print(' o____ ')
print('  |||| ')
```




- If you prefer, you can use three apostrophes ''' instead of one, which allows you to print multiple lines of text with one `print` statement:

```
#!/bin/python3

print('Hello!')

print('''
Here's a picture of a dog:
 o____
  ||||
''')
```



## Step 6 Challenge: about yourself

---

Write a Python program to tell others about yourself using text and ASCII art. You can create images of your hobbies, friends, or anything you like!

**Remember that the code you write in Trinket is public. Don't share any personal information like your full name or address!**

Here's an example:

```
My favourite animals are sheep
o-###-
 | | #
I live in Glasgow
  |
  #
  # #
  # #
  # #
```

## Step 7 The year 2025

You can also do calculations and print numbers. Let's find out how old you'll be in the year 2025!

- To calculate how old you'll be in the year 2025, you need to subtract the year you were born from 2025.

Add this code to your program:

```
print('''
Here's a picture of a dog:
  o____
  ||||
  ''')

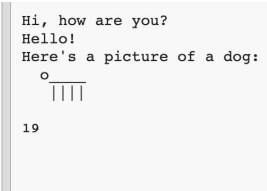
print(2025 - 2006)
```

Notice that you don't need to put quotes around numbers. (You'll need to change the number `2006` if you were born in a different year.)

- Click **Run**, and your program should print your age in the year 2025.

```
#!/bin/python3
print('Hi, how are you?')
print('Hello!')
print('Here's a picture of a dog:
  o____
  ||||
  ''')

print(2025-2006)
```



- You could improve your program by using `input()` to ask the user their age and store it in a **variable** called `born`.

```
Here's a picture of a dog:
  o____
  ||||
  ''')

born = input('What year were you born?')
print(2025 - born)
```

- Run your program and then enter the year you were born. Did you get another error message?

That's because anything typed into your program is **text**, and it needs to be converted to a **number**.

You can use `int()` to convert the text to an **integer**. An integer is a whole number.

```
print('Here's a picture of a dog:
  o____
  ||||
  ''')

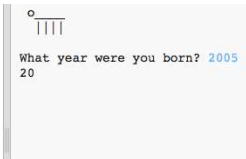
born = input('What year were you born?')
born = int(born)
print(2025 - born)
```



- You can also create another variable to store your calculation, and print that instead.

```
print('Here's a picture of a dog:
  o____
  ||||
  ''')

born = input('What year were you born?')
born = int(born)
age = 2025 - born
print(age)
```



- Finally, you can make your program easier to understand by adding a helpful message.

```
born = input('What year were you born?')
born = int(born)
age = 2025 - born
print('In the year 2025 you\'ll be', age, 'years old!')
```

```
What year were you born? 2006
In the year 2025 you will be 19 years old!
```

## Step 8 Challenge: your age in dog years

---

Write a program to ask the user their age, and then tell them their age in dog years! You can calculate a person's age in dog years by multiplying their age by 7.

```
What is your age? 9
If you were a dog, you'd be 63 !!

o
|
|
|
```

In programming, the symbol for **multiplication** is the `*` character, which you can usually type by pressing `Shift + 8` on the keyboard.

## Step 9 Challenge: calculating text

---

Did you know that you can also calculate text?!

What will the following program print to the screen? See if you can guess it correctly before running the program.

```
print('ha ' * 4)
print('ba' + 'na' * 2)
print('Hello' + '!' * 10)
```

Can you make up any words of your own? You could even make your own patterns!

```
print('Here is a scarf:')
print('-#' * 10)
print('#-' * 10)
print('Here is a wave:')
print('\^' * 10)
print('\v' * 10)
```

```
Here is a scarf:
-#####-#####
#####-#####-#####
Here is a wave:
^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^
v v v v v v v v v v v v
```

---

Published by Raspberry Pi Foundation (<https://www.raspberrypi.org>) under a Creative Commons license (<https://creativecommons.org/licenses/by-sa/4.0/>).

View project & license on GitHub (<https://github.com/RaspberryPiLearning/about-me>)