

Intro to Python

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Python is an example of a programming language. There are many programming languages. My first language was Fortran. Another well known language is C. Today though; Python.

We will use this in browser python: <http://repl.it/languages/Python> to write and run code. On the left is where we will write code (this usually takes place in an editor like notepad) On the right we have the ‘command line’ where the outputs will be displayed.

The idea is to work through a series of examples to get familiar with how everything works. After which we will be able to tackle some harder problems as well as make some fun programs.

If you already know how to code try to solve the ‘test out’ problems. If you’re successful you can proceed directly to the activities/challenge problems/adventure game.

Example 1. *The print command tells the computer to print an output to the screen. This is everyones first program. Write the code in your editor (left) and hit run. The output should display on your terminal (left).*

```
print "hello world"
```

Example 2. *To make your code more readable you should use comments.*

```
# this is a comment; it will do nothing.  
print "hello world" # prints to the screen
```

Example 3. *Variables. Computers can store things! We can assign letters and numbers to a variable using =.*

```
name = "Matt" #letters and numbers in quotes are called a string
print "Hi", name
```

Example 4. *Now let's make things more interesting. Get to know your computer!*

```
name="Matt"
fav_colour="black"
age="25"
print "Hi there"
print "So", name, "you are", age, "years old."
print "I see your favourite colour is", fav_colour, "... nice!"
```

Example 5. *Inputs! You can also have the computer ask the user for information.*

```
print "hello there" # prints to the screen
print "What is your name?"
name = raw_input(">") #shows prompt and waits for input
print "hello",name, "it's a pleasure to meet you"
#your input became the variable: name
```

After today's session is over if you're looking to learn Python I recommend "Learn Python the Hard Way" <http://learnpythonthehardway.org/book/> It is free to read online and will walk you through things like installation.

Also popular is codecademy: <https://www.codecademy.com/learn>

If you're looking for math problems to tackle with programming check out Project Euler: <http://projecteuler.net>