

```
1 #This is a single line comment. A comment is anything  
  written after a # on a single line.  
2  
3 print("Hi") #Single line comments can be on the same  
  line as code as long as they are the last thing on  
  that line.  
4  
5 '''  
6 This is a multi line comment.  
7 Multi line comments are anything between sets of 3  
  apostrophe.  
8 Comments are ignored by the python interpreter and  
  therefore do not execute at runtime. They are used  
  for code documentation.  
9 print("This code will not run")  
10 '''  
11  
12 '''  
13 The print function outputs its argument as a string  
  to the console.  
14 You can pass text directly to the function or you can  
  pass it a string stored in a variable.  
15 '''  
16  
17 print("This text was passed directly to the print  
  function. Note the quotation marks.")  
18  
19 var = "This string was stored in a variable named var  
  and passed to the print function. Note the lack of  
  quotation marks in the function argument."  
20 print(var)  
21  
22 '''  
23 The input command prints its argument to the screen  
  and then waits for user input to proceed.  
24 If you don't pass it an argument it will just wait  
  for input.  
25 Input can easily be stored to a variable.  
26 '''  
27  
28 input("Enter some text: ") #With argument
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29 input() #Without argument
30 var = input("Enter some text to print: ") #Storing
    input in var
31 print(var) #Printing stored input
32
33 '''
34 Lets use this to perform a task. We will create a
    small program that adds 2 numbers together.
35 If you don't enter numbers you will get an error. I
    will cover how to prevent this issue later but for
    now dont worry about it.
36 '''
37
38 num1 = int(input("Enter number 1: ")) #int() converts
    its argument to an integer (whole number). int(input
    ()). It will produce an error if passed any value
    that cant be represented as an integer.
39 num2 = int(input("Enter number 2: "))
40 num3 = num1 + num2
41 print("The sum is " + str(num3)) #str() works the
    same as int() except it converts the argument into a
    string rather than an integer.
42
43 '''
44 Next i will show you how to make your own functions.
45 To define a function we use def then the function
    name when in parentheses we place any arguments we
    wish to use.
46 It is possible to use an undeclared number of
    functions but I'll keep it simple for now.
47 '''
48
49 def divide_float(x, y): #Here we use def to define a
    function, name it divide_float and pass 2 arguments
    that gets stored as a variables called x and y.
    Arguments get separated by a comma. You need to place
    : at the end of this declaration
50     div = int(x) / int(y) #Here we take the arguments
    stored as x and y, convert them to integers so we
    can perform math operations, divide them and store
    the answer in a variable named div.
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51         #Note that the code inside
        the function is indented. This is so the function
        knows what is inside of it. Once the code reaches the
        same indentation level as where the function was
        declared it assumes that is the end of the function.
52     return float(div) #Here is where the function
        returns a value. Functions dont have to return a
        value. If you do need to return a value you use
        return followed by what you want to return.
53         #A float is a floating point
        number or a number with a decimal value. float()
        works the same as str() and int().
54
55 print(str(divide_float(input("first number: "), input
    ("second number: "))))
56 '''
57 The above line calls the function as an arguement for
    the print function. Functions arent run when they
    are located in your code rather they run when called
    . Think of defining a function as storing code to run
    later in a variable.
58 So we have the print function getting called. As its
    argument we are passing in the function we made but
    converted into a string with str().
59 The arguments being passed to our divide_float
    function are input functions that will ask for user
    input when needed. The arguments are separated by a
    comma.
60 If we run this code python will skip over the
    function definition and see the print function. It
    will try to read the argument and see that it is our
    function divide_float so it will call that function.
61 It will see that that functions arguments are also
    functions (input) so it will run the two input()
    functions first. Lets say we put in 10 and 2.
62 Now we have our arguments it goes back to running the
    divide_float function. divide_float(10, 2).
63 Now we are running the indented code inside our
    function. div = x / y which with args is div = 10 / 2
    .
64 Now the function returns the variable div but first

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64 it converts it into a float (decimal).
65 Now the code jumps back out to the print function
   now that it has a value for its argument. It
   converts the value we returned from our function
   into a string with str() then prints it.
66 print(str(divide_float(10, 2))) --> print(str(5.0
   )) --> print("5.0")
67 '''
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