## Python - Input

Dim (Dimension) statements are used in programs to create comments for programmers. These statements are not executable - in other words they are ignored when the program is run.

```
|7%*Assign 1-2-H:/My Documents/Classes/TEJ 20/Unit 4 - Python/Assign 1-2* 
```


## \# - this denotes a DIM statement

## Getting Input from the Keyboard

There are 2 commands used to prompt the user of the program to enter Input from the keyboard :

| input() | $\rightarrow$ | used for numbers |
| :--- | :--- | :--- |
| raw_input() | $\rightarrow$ | used for text |

A print statement (telling the user what to input) should always be in front of an input() statement
Enter the following program and run it :

```
Second - H:/My Documents/Classes/TE 20/Unit 4 - Python/Second- 미 \(x\)
File Edit Format Run Options Windows Help
# This is an example of a Input Statements
print " Enter a Number"
x = input()
print "Enter a Second Number"
y = input()
print "Your numbers Added = ", x+y
|
Ln:8 Col: 0
```

Without input statements, we have to go into the program to change the values.

## Adding Text :

Enter the following program and run it :

| *Assign 2-4 - H:/My Documents/Classes/TE 20/Unit 4-Python/Python Programs/Assign 2-4** | - [-] $\times$ |
| :---: | :---: |
| Eile Edit Format Run Options Windows Help |  |
| ```print "Enter your first name" x = raw_input() print "Enter you last name" y = raw_input() print "\overline{Hello ", x+y}``` |  |
|  | Ln: 5 Col: 19 |

* we are using raw-input() instead of input(), because are answers will be text
* Text is added by Python, by sticking them together
* To get a space in the output (between the First and Last names), change the last line of the program :
print "Hello", x + " " + y
* Try putting a comma after the " " in the print statement. See how it changes where the input is :

| 73*Assign 2-4 - H:/My Documents/Classes/TEJ 20/Unit 4 - Python/Python Programs/Assign 2-4* | - $\square$ ㅁ) $x$ |
| :---: | :---: |
| File Edit Format Run Options Windows Help |  |
| ```print "Enter your first name", x = raw_input() print "Enter you last name", y = raw_input() print "Hello", x + " " + y``` | $\triangle$ |
|  | Ln: 6 Col: 0 |

## Assignment \#2

Use \# (DIM) statements in all your programs! The first 3 lines should be \# statements :
\# Assign Number
\# Your Name
\# Date

1. Rewrite Assign 1-1 (Pizza program), so that the Cost (Cost per Slice) and Num (Number of Slices) are inputted from the keyboard. Save as "Assign 2-1"
2. Rewrite Assign 1-2, so that the 2 numbers used in the program are inputted from the keyboard. Save as "Assign 2-2".
3. Write a program that prompts the user for their Title, First name, Surname, Telephone area code, and Phone number. Input each piece of information on a separate line.

The Output should look like :

Save as "Assign 2-3"

```
Phone Number Information
--------------------------
Enter your title: Ms
Enter your first name: Mary
Enter your surname: Harrison
Enter your area code: 419
Enter your phone number: 343-8789
Ms. Harrison Mary
(419) 343-8789
```

4. The formula to calculate the area $\operatorname{Area}=\boldsymbol{\pi r} \mathbf{r}^{\mathbf{2}}$ or Area $=\mathbf{3 . 1 4 *} \mathbf{r} * * 2$. Create a program that prompts the user to input the radius of a circle and displays the Area. Save as "Assign 2-4". The Output should look like :
```
Area of a Circle
----------------
Enter the radius of a circle (in cm) : 10
The Area of the circle is 314 cm2
```

5. The height of an object at any given time from a starting height of 100 metres is given by the equation $h=100-4.9 t^{2}$ where $t$ is the time in seconds. Create a program that prompts the user for both the starting height in metres and the time in seconds and then displays the height of the object at that time. * Save as "Assign 2-5". Your program could look as follows:
```
Object Height
Enter the starting height in metres: 100
Enter the time in seconds: 2
The height of the object is 80.4 meters
```

