

In [1]: *## 1.In the below elements which of them are values or an expression?
eg:values can be integer or string and expressions will be mathematical operators*

In [3]:

```
*      - "expression"
'hello' - "values"
-87.8  - "values"
-      - "expression"
/      - "expression"
+      - "expression"
6      - "values"
```

File "<ipython-input-3-ebbbaa74533b>", line 5
(-, "expression")
^
SyntaxError: invalid syntax

In [4]: *## 2.Difference between string and variable*

In [5]: string: A string **is** a sequence of characters which **is** represented **in** single quotes
variable: variable **is** a reserved memory location to store values

File "<ipython-input-5-e91c1e903865>", line 1
string: A string is a sequence of characters which is represented in single quotes or double quotes.
^
SyntaxError: invalid syntax

In [6]: *## 3.Describe three different data types*
int data type: They are often called **as** integer data type which represents the positive or negative whole numbers with no decimal point eg: **1,-56,+56**

float data type: Float **is** used to represent real numbers **and is** written **with** a decimal point
Eg: **8.75,2,50**

bool data type : we can use this datatype to represent boolean values . The only allowed values are **"true or false"**. Internally python represents **True as 1 and False as 0**

File "<ipython-input-6-bf092397989b>", line 2
int data type: They are often called as integer data type which represents the positive or negative whole numbers with no decimal point
^
SyntaxError: invalid syntax

In [7]: *## 4. what is an expression made of ? what do all expressions do ?*
An expression **is** a combination of values, variables, operators, **and** calls to functions.
An expression **is** an instruction that combines values **and** operators **and** always evaluates to a value.

File "<ipython-input-7-524a2c0f4821>", line 2
An expression is a combination of values, variables, operators, and calls to functions.
^
SyntaxError: invalid syntax

In [12]: *## 5. This assignment statements ,like spam =10. what is the difference between an expression and a statement?*
An expression evaluates to a value. Expression **is** a combination of variables, operators, and values.
Statements represent an action **or** command e.g print statements, assignment statements

File "<ipython-input-12-ec66c2dd5682>", line 2

An expression evaluates to a value. Expression is a combination of variables, operations and values that yields a result value

^

SyntaxError: invalid syntax

In [9]: *## 6.after running the following code ,what does the variable bacon contain?*

In [10]: `bacon=22
bacon + 1`

Out[10]: 23

In [11]: *## 7. what should be the values of the following two terms will be?*

In [13]: `'spam'+'spamspace'
'spam'*3`

Out[13]: 'spamspacespam'

In [14]: *## 8. why is eggs a valid variable name while 100 is invalid?
Because variable names cannot begin with a number.*

File "<ipython-input-14-5e79fc775644>", line 2

Because variable names cannot begin with a number.

^

SyntaxError: invalid syntax

In [15]: *## 9.what are three functions can be used to get the integer , floating -point number
str()
int()
float()*

Out[15]: 0.0

In [16]: *## 10.Why does this expression cause an error? How can you fix it?
'I have eaten ' + 99 + ' burritos.'*

This expression causes an error because in this line 'I have eaten' and 'burritos' while 99 is treated as integer. In order to fix the error and print 'I have eaten 99', 99 needs '' around it to treat it as a string.

File "<ipython-input-16-8f808d061eb6>", line 4

This expression causes an error because in this line 'I have eaten' and 'burritos' are strings,

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SyntaxError: invalid syntax

In [17]: `var="I have eaten" + "99" + "burritos"
print(var)`

I have eaten99burritos

In []: