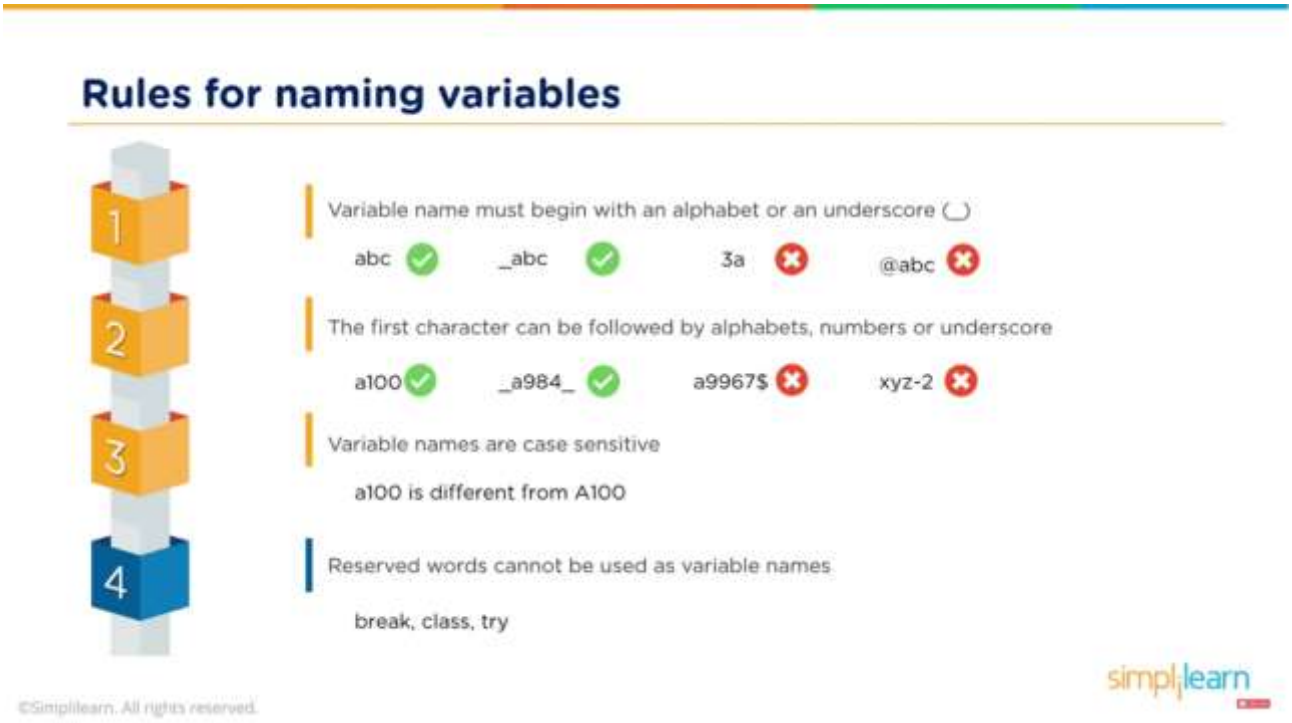
Daffodil International School
Value, Culture and Innovation

Python Variable

A variable is a named location used to store data in the memory. It is helpful to think of variables as a container that holds data that can be changed later in the program. For example,

```
var1 = “hello world”        # String variable
var2 = 7                    # integer number
var3 = 36.5                 # Float number
```



Naming variables rules:

1) Space should not be given in a variable.
2) Can’t use number at first in a variable.
3) We can’t use keyword in a variable. Example- Input, Print, break, class etc.
4) Variables are case sensitive.

Python examples:

```
x = 5
y = “Hello World”
print (x)
print (y)
```

Python output:

Find the output of the program using python IDE and write the output here.

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x = 4 x = “Tuhin” print(x)	Find the output of the program using python IDE and write the output here.
x, y, z = “Mango”, “Banana”, “Cherry” print(x) print(y) print(z)	Find the output of the program using python IDE and write the output here.
x=y=z=”Orange” print(x) print(y) print(z)	Find the output of the program using python IDE and write the output here.
x, y, z = “Mango”, “Banana”, “Cherry” print(x) print(y) print(z)	Find the output of the program using python IDE and write the output here.
x = “awesome” print (“Python is “, x)	Find the output of the program using python IDE and write the output here.
x = “Phython is” y = “awesome” z = x+y print(z)	Find the output of the program using python IDE and write the output here.

x =5 y = 10 print(x+y)	Find the output of the program using python IDE and write the output here.
x =5 y = “John” print(x+y) #Python will show the errors	Find the output of the program using python IDE and write the output here.
var1 = “Hello World” var2 = “Harry” print(var1+var2) # Concatenation	Find the output of the program using python IDE and write the output here.
x = 100 y = 200 print(x+y) print(x-y) print(x*y) print (x/y)	Find the output of the program using python IDE and write the output here.
var1 = “Hello World” var2 = “Harry” print(var1+var2) # Concatenation	Find the output of the program using python IDE and write the output here.
city = “Dhaka” destination_city = “London” city = destination_city print(city)	Find the output of the program using python IDE and write the output here.
my_favourite_number = 7 print(my_favourite_number) pi = 3.14	Find the output of the program using python IDE

print (“City: “, “Dhaka) city = “Dhaka” print (“City: “, city)	Find the output of the program using python IDE and write the output here.

city = “Dhaka” my_location = 7 print(“City: “, city, “My Location: “, my_location)	Find the output of the program using python IDE and write the output here.

city = “Dhaka” destination_city = “London” city = destination_city print(city)	Find the output of the program using python IDE and write the output here.

Typecasting in Variables:

var1 = “54” var2 = “32” print (var1+var2) #python won’t add var1+var2 as it is taking as string print(int(var1)+int(var2)) #python will add now	Find the output of the program using python IDE and write the output here.

```
var1 = “54”
var2 = “32”
print (var1+var2)   #python won’t add var1+var2 as
                        it is taking as string
print(int(var1)+int(var2))  #python will add now
```

Find the output of the program using python IDE and write the output here.

Global Variables: Any variable that is created outside the function is called global variable.

Example:

```
message = “How you doing?”
def greet():
        print(message)
greet()
```

Find the output of the program using python IDE and write the output here.

```
message = “How you doing?”
def greet():
        message = “How are you?”
        print(“Message inside function”, message)
greet()
print (“Message outside function”, message)
```

Find the output of the program using python IDE and write the output here.

Tips about global and local variables:

1) A variable defined inside a function is local to it. When the function ends, the variable is destroyed.
2) Variables defined outside a function are called global variables in python.
3) Inside functions, the global keyword can be used to change the value of a variable in the global scoop.
4) Using the global keyword is a bad practice and you should try to avoid it whenever possible.

Python Challenges:

1) Write a python program that takes your name as a variable. Your name will be printed 10 times on the output screen. (This program shouldn't be more than three lines)
2) A=100, B=200 and C=300 Write a python program so that the value of the assigned variable will be printed as A = 300, B = 200 and C = 100.
3) Write a python program following the strings given below.
   I like python program.
   I want to be a python programmer.
   Use concatenation method of the strings to add this above two lines.
4) Write a program showing that the global and local variable in a single program.
5) "I love python program. This is so easy." Write a python program show the output "python program is so easy" from the initial two lines.