PDF_CODE

HIT137 Software

Now Week 1 ***Before you start with your first program please note:***

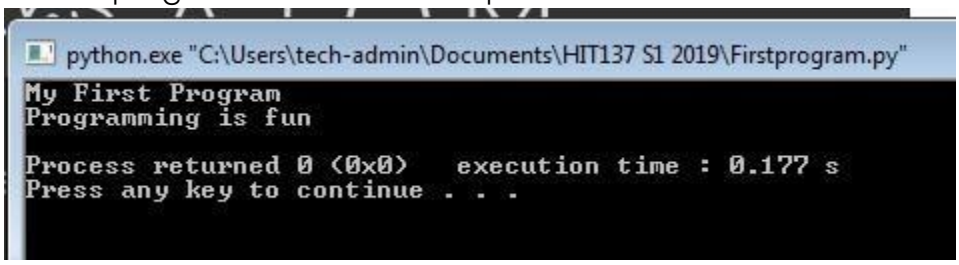
- ***Python syntax (code) is case sensitive***
- ***Always use the right syntax; be very careful in writing codes.***

Syntax error should be avoided at all times

Firstprogram.py

```
print("My First Program")
print("Programming is fun")
```

Run the program and see the output:



Note: Comments start with # (symbol) and mainly used as notes

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Calculateprogram.py

```
print(2+4)  # printing addition of 2 numbers – note this is a comment only
print(20-3*4)
print(7/2)
print(2**2)
print(13//2)
```

Run the program and see the output:

Variableprogram.py

```
width=10 height=5
total=width*height
print("the total is", total)
print("the height is", height,"\nthe width is", width)
```

The following keywords cannot be used for naming identifiers (class, function, variable or structure names)

True	False	import
from	as	None
and	or	not
in	is	try
except	finally	raise
del	global	nonlocal
lambda	def	class
with	if	elif
else	pass	for
while	continue	break
assert	return	yield
async	await	

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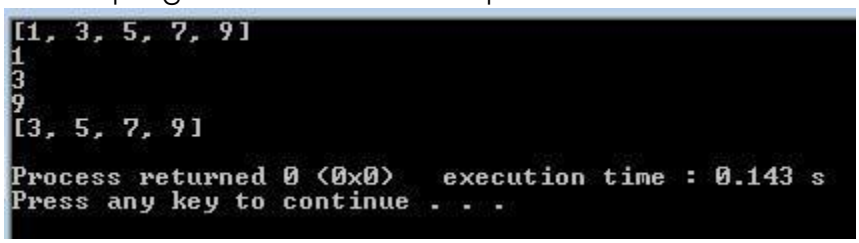
Listprogram.py

```
array1 = [ 1, 3, 5, 7, 9]
print(array1) # output- [1, 3, 5, 7, 9]
print(array1[0])  # array1 with index 0 –output 1
print(array1[1])
print(array1[-1])
print(array1[-4:])  # slicing returns a new list [3, 5, 7, 9]
```

Run the program and see the output:



Listprogram2.py

```
letters = ['a', 'b', 'c', 'd', 'e', 'f', g']
print(letters)
letters[2:5] = ['C', 'D', 'E']
print(letters)
letters[2:5] = []
print(letters)
letters[:] = []
print(letters)
```

Run the program and see the output:

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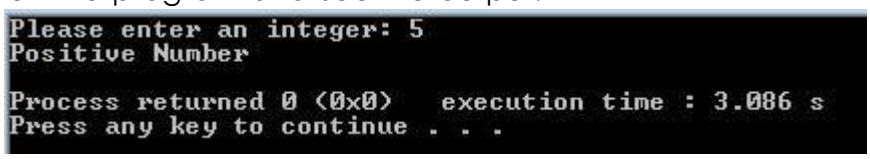
IFprogram.py

```
#note:  input function is used to get the input from the user, int function is used to convert the input value from string to integer

x = int(input("Please enter an integer: "))
if x < 0:  # checking whether the input value is less than zero
   print("Negative Number") # note the indentation - print command is right indented
else:
   print("Positive Number") # print command is right indented
```

Run the program and see the output:



IFprogram2.py

```
x = int(input("Please enter an integer: "))
if x < 0:
   x = 0
   print('Negative changed to zero')
elif x == 0:
   print('Zero')
elif x == 1:
   print('Single')
else:
   print('Value is more than 1')
```

Run the program and see the output: