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Q1. What type of errors do occur in Python, write the a program with different types of errors as well as write separate correction code?

There are few errors that occurs in python,some of them are explained below...

1 Syntax Error:

This error occurs when the interpreter encounters codes that doesn,t conforms the python language rules.

Error code:

```
Print( 'hello world)
```

#This code has missing quote around string.

Correct code:

```
Print( 'hello world' )
```

2 Runtime error:

This error occur during execution of the program at the time when program runs.

Error code:

```
Title= ' python programming '
```

```
Print( 'Titel' )
```

#It is false because the spelling is wrong (titel)

Correct code:

```
Title= ' python programming '
```

```
Print( 'Title' )
```

3 Semantic error:

This error occur when the program performs unexpectedly.

Error code:

```
Num=3
```

```
Print( 'result' ,num*8+4)
```

```
28
```

#It is wrong because it has no proper braces.

Correct code:

```
Num=3
```

```
Print( 'result ' ,num*(8+4))
```

36

Q2. What are Boolean String test, write the code for each Boolean string test code?

Methods:

.isalpha()

.isalnum()

.istitle()

.isdigit()

.islower()

.isupper()

.startswith()

isalpha():

“salman ” .isalpha()

True

“salman1 ” .isalpha()

False

#Salman1 is false because it has one digit

isalnum():

“6th ” .isalnum()

True

“6 ” .isalnum()

True

istitle():

“Rich Dad Poor Dad ” .istitle()

True

“rich dad poor dad ” .istitle()

False

#The second one is false because its first letter is small.

isdigit():

```
"1234 ".isdigit()
```

True

islower():

```
Print( "PYTHON ".islower())
```

False

#The first one is false because it has all capital letters

```
Print( "python ".islower())
```

True

isupper():

```
print( "SALMAN ".isupper())
```

True

startswith():

```
" salman ".startswith( 't' )
```

False

#It is false because it does not start with 't'

Q3. What is formatting string input mean in Python, write a program in which formatting string input is used?

String:A sequence of characters A,B,C,,,X,Y,Z,a,b,c,,,y,z,1,2,3,,,0,@,# etc...

String formatting:

The string format() method formats the given string into a nicer output in Python.

Formatting:

```
Name='salman'
```

```
Age='20'
```

```
#python 3.6 formatting
```

```
Print(f'hello {Name} your {age} is')
```

Output:

Hello salman your age is 20

