

SEM	5th
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Subject	Data science

**Q NO.. 01.** Type of errors occur in python

**SYNTAX ERRORS..** Syntax errors are error in your code that the computer cannot interpret. in python these error are often

.spelling errors

.the omission of important characters (such is a missing colon)

.inconsistent use of / wrong indentation

In IDLE it will highlight where the syntax error is most syntax are typos, incorrect indentation , or incorrect arguments .

Code

1. Name=input("what's your name?")

2. If name=="khan"

3. I print("nice to meet you khan")

In this syntax we forget : in line 2 after khan.

If we set it then

1. Name=input("what's your name?")

2. if name=="khan":

3. I print("nice to meet you khan")

RUNTIME ERRORS. These are errors that are not detected until run time.

These are often caused by:

.It can't find some data because it doesn't exist

.It can't perform an action on the data it has been given because it is an invalid type of data.

These type of error only found at runtime and often through lots of testing

CODE.

1. age=input("how you are old")

2. if age>30:

3. print("wow, you are so young")

It show error

Age is a string

Then we set

1. age=input("how you are old")

2.age= int(age)

3. if age>30:

4. print("wow, you are so young")

LOGICAL ERRORS.. These are errors in the code that do not throw an error at all, but simply do not do what you intended the code to do.

These are the most difficult to spot, because the can only be found through full and extensive testing

Code

1. temp= int(input("how warm is it today?"))
2. if temp<30:
- 3.print("wow it is hot!")
4. Else:
5. print ("barr it is cold")

In this code show errors

After set

We take changes in line 2    change < to >

1. temp= int(input("how warm is it today?"))
2. if temp>30:
- 3.print("wow it is hot!")
4. Else:
5. print ("barr it is cold")

**QNO..02**

**ANS.** Boolean values are the two constant objects false and true.

They are used to represent truth values (other values can also be considered false or true).

In numeric contexts (for example, when used as the argument to an arithmetic operator), they behave like the integers 0 and 1 respectively.

The built-in function `bool()` can be used to cast any value to a Boolean,

if the value can be interpreted as a truth value

## Boolean string

A string in Python can be tested for truth value.

The return type will be in Boolean value (true or false)

Let's make an example, by first creating a new variable and giving it a value.

## Codes

```
my_string = "hello world"
```

```
my_string.isalnum()      #check if all char are numbers
```

```
my_string.isalpha()     # check if all char in the string are alphabetic
```

```
my_string.isdigit()     #test if string contains digits
```

```
my_string.istitle()     #test if string contains title words
```

```
my_string.isupper()     #test if string contains upper case
```

```
my_string.islower()     #test if string contains lower case
```

```
my_string.isspace()     #test if string contains space
```

```
my_string.endswith('H') #test if string ends with H
```

```
my_string.startswith('d') #test if string starts with d
```

To see what the return value (true or false) will be, simply print it out.

```
my_string = "hello world"
```

```
print my_string.isalnum()      #false
print my_string.isdigit()     #false
print my_string.isupper()     #false
print my_string.islower()     #false
print my_string.isspace()     #false
print my_string.endswith('H') #true
print my_string.startswith('d') #true
```

### Q NO 3:

We can use the `raw_input()` function in python 2 and the `input()` function in python3. By default the input function takes an input in string format. For other data type you have to cast the user input. In python 3 we use the `input()` function which returns a user input value.

Input()

The input function accepts information from the user.

Input():python's built-in input function to read from the keyboard.

Syntax: `variable=input()`

Note

It returns string values .

### code

```
s=input('what day is it')
```

```
print(s)
```

result

what day is it?

Tuesday

Here

Input = input function gets information from the user

(What day is it?)= This is the question (prompt) to ask the user.

S= The response is stored in variable s.

Tuesday= The user type in a response.