

Data Types, Loops & Big O



Data Type



Data Type

Variables & Types

```
mathsMarks = 2  
englishMarks = 3.5  
myName = 'dorji'  
isDorjiMale = true  
PI = 3.14159
```

Data Type

Variables & Types

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mathsMarks = 2  
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```

OPERATORS



=



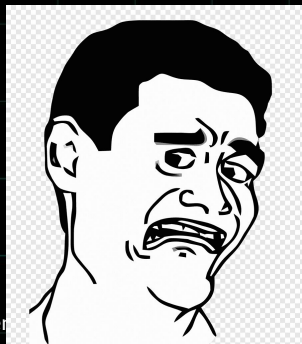
+



=



+



=



+



OPERATORS

```
Variables & Types

mathsMarks = 2
englishMarks = 3.5
myName = 'dorji'
isDorjiMale = true
PI = 3.14159

doubleMaths = mathsMarks * 2
totalMarks = mathsMarks + englishMarks
fullName = myName + 'penjor'
metub = myName / PI
```

OPERATORS



OPERATORS

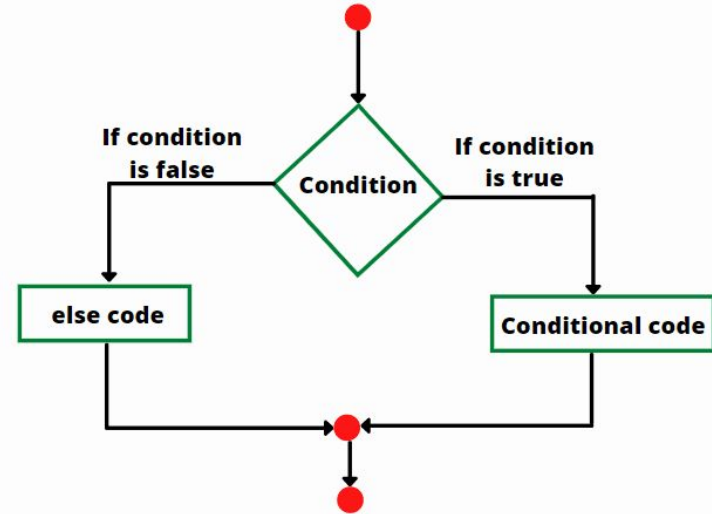
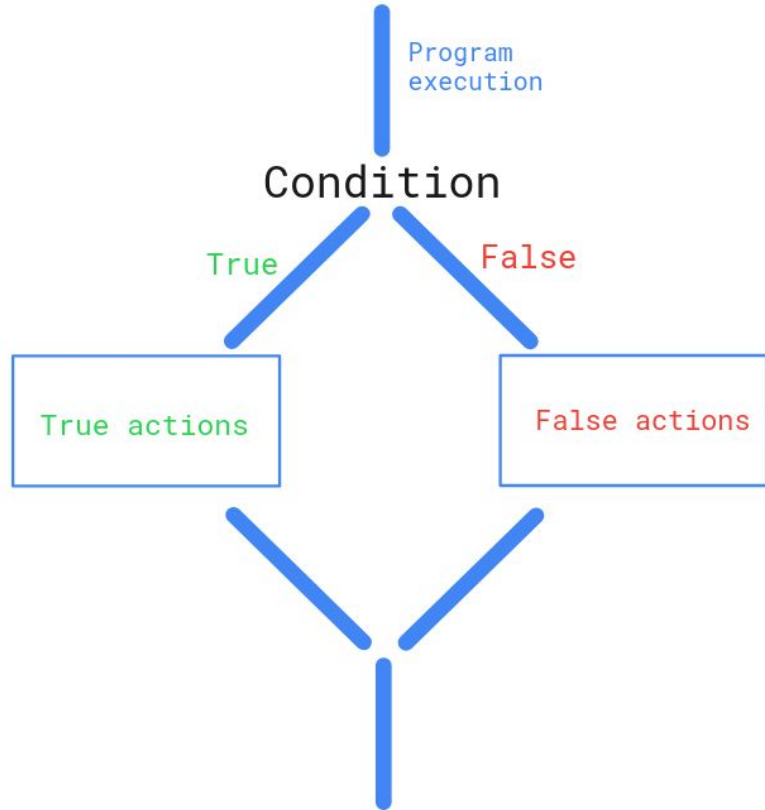


Fig: if-else selection flowchart diagram

OPERATORS

==

!=

<

>

<=

>=

Variables & Types

```
mathsMarks = 2
englishMarks = 3.5
myName = 'dorji'
isDorjiMale = true
PI = 3.14159

if (isDorjiMale):
    print('Dorji is a guy')
else:
    print('Not male')

if (mathsMark == 2):
    print('Maths is 2')
elif (englishMarks > 3):
    print('Eng is more than 3')
else:
    print('maths not 2, eng not more than 3')
```

OPERATORS

==

!=

<

>

<=

>=

Variables & Types

```
mathsMarks = 2
englishMarks = 3.5
myName = 'dorji'
isDorjiMale = true
PI = 3.14159
```

```
if (isDorjiMale):
    print('Dorji is a guy')
else:
    print('Not male')
```

```
if (mathsMark == 2):
    print('Maths is 2')
elif (englishMarks > 3):
    print('Eng is more than 3')
else:
    print('maths not 2, eng not more than 3')
```

ARRAYS, LISTS



veg_array

ARRAYS, LISTS

```
Arrays.py

veg_array = ['cabbage', 'apple', 'comb']
class_12_marks = [12, 13, 33, 50, 99]
cocktail = [4, 'dechen', 3.14, ['a', 3], 10]

value1 = veg_array[0]
value2 = class_12_marks[4]
value3 = cocktail[5]
value4 = cocktail[3]
value5 = cocktail[3][0]
value6 = value4[0]
```

TUPLES



TUPLES

tuple.py

```
mytuple = ("apple", "banana", "cherry")  
value1 = mytuple[1]
```

SETS



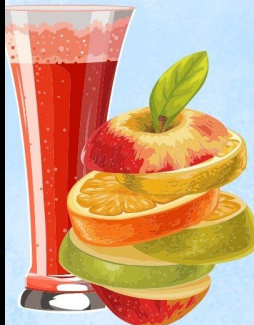
SETS

Dictionaries.py

```
set1 = {"apple", "banana", "cherry", True, 1, 2}  
set2 = {'apple', 'apple', 'banana'}|
```


DICTIONARIES

MENU



Fresh Fruit Juice	\$1.20/ \$1.80
Mixed Fruit Juice	\$1.40 / \$2.00
Mixed Fruit Salad Cup	\$1.10
Watermelon Cup	\$1.00
Sliced Fruit	\$0.30 - \$0.50

Flavoured Milk

Milo (Packet) - 200ml	\$1.00	Meiji Milk - 200ml	\$1.00
Milo Peng Bottle - 225ml	\$1.30	Marigold Milk - 200ml	\$1.00
HL Milk (Packet) - 200ml	\$1.00		



Packet Drink

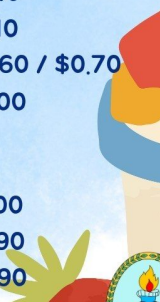
Pokka Packet Drink 5.8gm/ml	\$0.80
Yeo's Packet Drink - 250ml.....	\$0.80

Bottled Drink

Pokka Green Tea (500ml)	\$1.10
Pokka Gulong Tea (500ml) (no sugar)	\$1.10
"IF" Coconut Drink - 350ml	\$1.10
Mineral Water - 250ml	\$0.60 / \$0.70
Peel Fresh Drink - 250ml	\$1.00

Dessert

Meiji Yoghurt - 135g.....	\$1.00
Jele Beattie Vitamins A,C,E Jelly 150g NEW!	\$0.90
Vitagen/Yakulk (80ml)	\$0.90



DICTIONARIES

Arrays.py

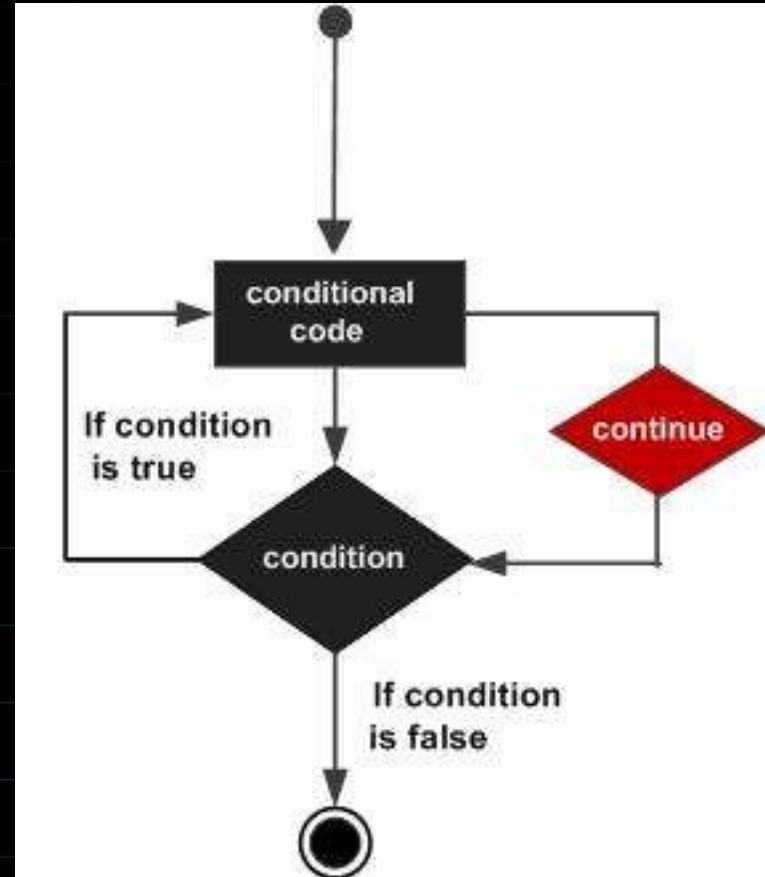
```
juice = {  
    'fresh_juice': 1.20,  
    'mixed_fruit': 1.40,  
    'watermelon_juice': 40,  
}  
  
desert = {  
    'vannila': 2.30,  
    'chocolate': 0.90,  
}  
  
ingredients = {  
    'breakfast': ['rice', 'milk']  
    'lunch': 'water',  
    'dinner': 0  
}
```

Dictionaries.py

```
value1 = juice['fresh_juice']  
value2 = juice[0]  
value3 = desert['vannila']  
value4 = ingredients['lunch']  
value5 = ingredients['dinner']  
value6 = ingredients['breakfast']  
value7 = ingredients['breakfast'][1]
```

LOOPS

```
3 print(1)
4 print(2)
5 print(3)
6 print(4)
7 print(5)
8 print(6)
9 print(7)
10 print(8)
11 print(9)
12 print(10)
13 print("Ready or not, here I come!")
```



LOOPS

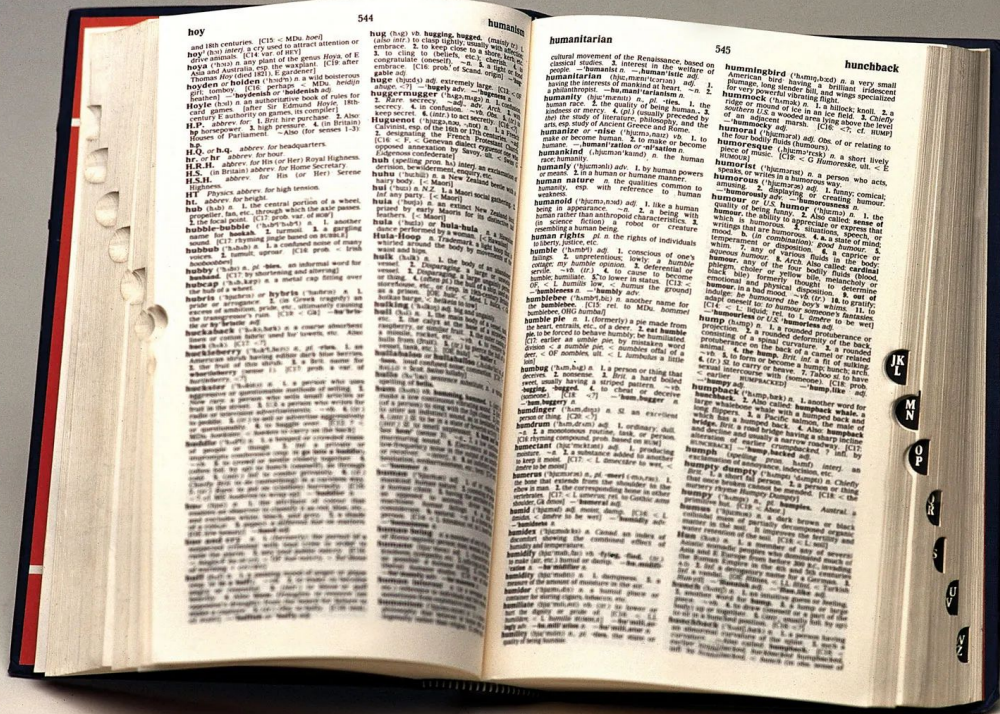
```
loops.py

fruits = ["apple", "banana", "cherry"]
for x in fruits:
    print(x)

for x in "banana":
    print(x)

for x in range(0, 10):
    print(x)
```


BIG O (TIME / SPACE COMPLEXITY)



FAQs

“Any queries or further clarifications needed?”

Thank you!

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