assignment

May 16, 2023

```
[1]: #Q1
```

```
[2]: #String variable
```

```
[3]: a="faizan"
```

```
[4]: #list variable
```

```
[5]: b=[1,2,3,4,"shaikh",True]
```

```
[6]: #float variable
```

```
[7]: c=34.22
```

```
[8]: #tuple variable
```

```
[9]: d=(1,2,3,4,5,6,7,8)
```

```
[10]: #Q2
```

```
[11]: var1=''
```

```
[12]: type(var1)
```

```
[12]: str
```

```
[13]: var2='[DS,ML,Python]'
```

```
[14]: type(var2)
```

```
[14]: str
```

```
[15]: var3=['DS','ML','Python']
```

```
[16]: type(var3)
```

```
[16]: list
```

```
[17]: var4=1
```

```
[18]: type(var4)
```

```
[18]: int
```

```
[19]: #Q3
```

```
[20]: #/ division operator use for dividing two numbers
      #EXAMPLE
      a=10
      b=2
      c=a/b
```

```
[21]: c
```

```
[21]: 5.0
```

```
[22]: # % modules operator use for getting reminder
      #EXAMPLE
      a=20
      b=10
      c=a%b
```

```
[23]: c
```

```
[23]: 0
```

```
[24]: # // floor division operator it performs division between two numbers and
      ↪returns the largest integer that is less than or equal to the quotient
      #EXAMPLE
      a=10
      b=3
      c=a//b
```

```
[25]: c
```

```
[25]: 3
```

```
[26]: #** operator is used for exponentiation it raises the left operand to the power
      ↪of the right operand
      #EXAMPLE
      a=2**3
```

```
[27]: a
```

```
[27]: 8
```

```
#Q4

l = [1,1.5,"faizan",True,[1,2,3,4],(1,2,3,4),False,0,'$',1.5555]

for i in l:

  print(i, type(i))
```

```
#Q5

A = 20
B = 10
count = 0

while A % B == 0:
    A = A / B
    count += 1

if count > 0:
    print("number is divisible times",count)
else:
    print("Number A is not divisible by number B.")
```

```
#Q6

list = [1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25]
for i in list:

  if i % 3 == 0:
      print("number is divisible by 3",i)
  else:
      print("number is not divisible by 3",i)
```

```
#Q7

#in immutable data types we cannot cahnge the value of variavle once its␣
 ↪created, for example in int, float,touple
a=10
b=a

a=a+1
print(a)
print(b)
```

```python
# in mutable data type we can change anytime the value of variable, for example
 list.

list = [1,2,3,4,5]
list[1]=0
print(list)
```

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