question 1

June 23, 2023

```
[1]: a = 'adwitiya'
```

```
[2]: type(a)
```

```
[2]: str
```

```
[3]: b = [ 2,3,4,5,6,'adi' , 'pwskills' , 33.44 , True ]
```

```
[4]: type(b)
```

```
[4]: list
```

```
[5]: c = 33.44
```

```
[6]: type(c)
```

```
[6]: float
```

```
[7]: d = (1.0, 9.9 , 10)
```

```
[8]: type(d)
```

```
[8]: tuple
```

```
[ ]:
```

question 2

June 23, 2023

```
[1]: var1 = ''
```

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

```
[2]: str
```

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

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

```
[8]: list
```

```
[9]: var4 = 1
```

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

```
[10]: int
```

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

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

```
[14]: list
```

```
[ ]:
```

question 3

June 23, 2023

```
[4]: 3/15
```

```
[4]: 0.2
```

```
[5]: 4%20
```

```
[5]: 4
```

```
[6]: 5//2
```

```
[6]: 2
```

```
[7]: 8**4
```

```
[7]: 4096
```

```
[ ]:
```

question 4

June 23, 2023

```
[1]: d = [ 2,3,4,5,6, 'adwitiya' , ' pwskills' , 33.55 , True , '' ]
```

```
[2]: for w in d :
         print(type(w))
```

```
<class 'int'>
<class 'int'>
<class 'int'>
<class 'int'>
<class 'int'>
<class 'str'>
<class 'str'>
<class 'float'>
<class 'bool'>
<class 'str'>
```

```
[ ]:
```

question 5

June 23, 2023

[1]:

```
a = 10
b = 5
c = a/b
while c==a/b :
    print (c)
    c = a/b
    break
```

```
2.0
```

[ ]:

```
```

question 6

June 23, 2023

[8]:

```
result =[]
for i in range (1,25):
    print(i)
    if (i%3==0):
        print("it is divisible by 3")
```

```
1
2
3
it is divisible by 3
4
5
6
it is divisible by 3
7
8
9
it is divisible by 3
10
11
12
it is divisible by 3
13
14
15
it is divisible by 3
16
17
18
it is divisible by 3
19
20
21
it is divisible by 3
22
23
24
it is divisible by 3
```

[ ]:

```
```

Mutable objects are those that allow you to change their value or data in place without affecting the object’s identity.

In contrast, immutable objects don’t allow this kind of operation. You’ll just have the option of creating new objects of the same type with different values.

Mutable Objects are of type list, dict, or set.

Imutable objects - Numbers (Integer, Float, Complex, Decimal, Rational & Booleans)

Tuples.

Strings.