Lab 1

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IT
2023 Batch

Code 1
Find if the age is legal voting age or not using if only
input: 65

```
age = int(input('age: '))
if(age >= 18):
    print("Legal voting age")
if(age < 18):
    print(f'wait for {18-age} years more to vote')
```

✓ 3.9s

```
Legal voting age
```

Code 2
Find if the age is legal voting age using if and else

if else

```
age = int(input('age: '))
if(age >= 18):
    print("Legal voting age")
else:
    print(f'wait for {18-age} years more to vote')
```

```
Legal voting age
```

Code 3
Use if elif else to build a simple Chat bot

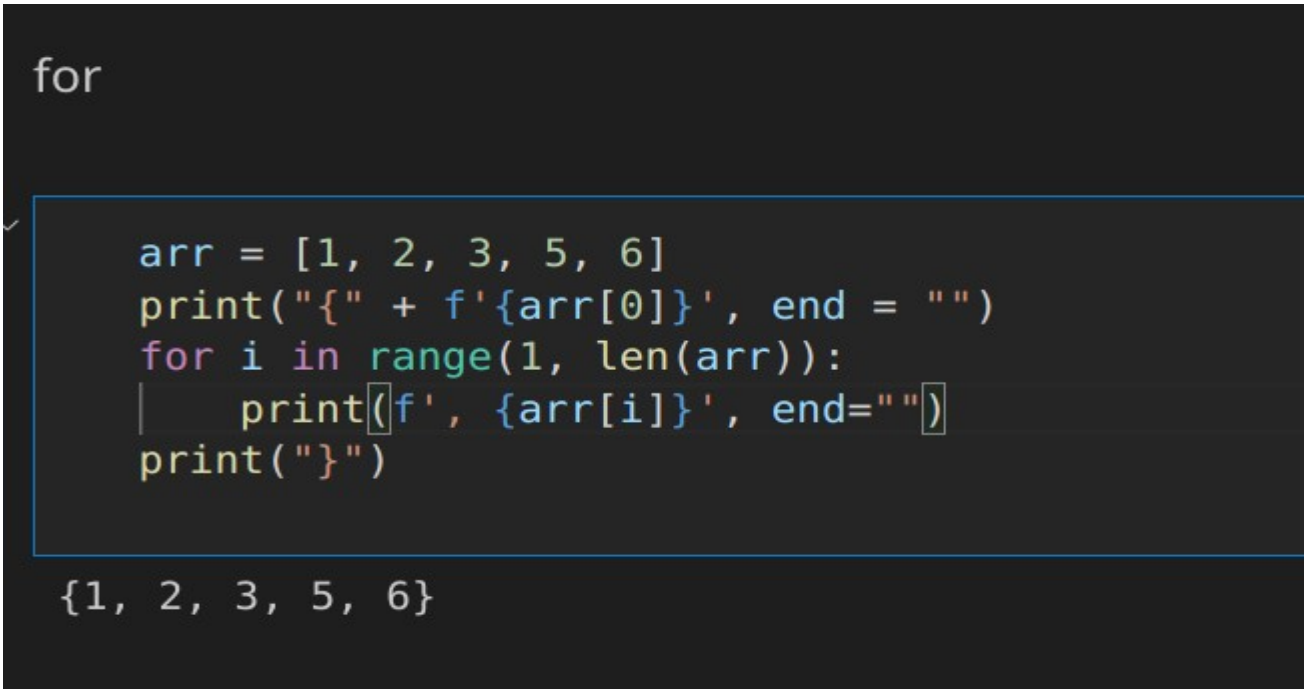
if elif else

```
command = input('Command: ')
if(command == "Hello"):
    print("Hello")
elif(command == "Hi"):
    name = input('Name: ')
    print(f"Hi, {name}")
elif(command == "namaste"):
    name = input('Name: ')
    print(f"namaste, {name}")
else:
    print(f"Good to meet you {command}")
```

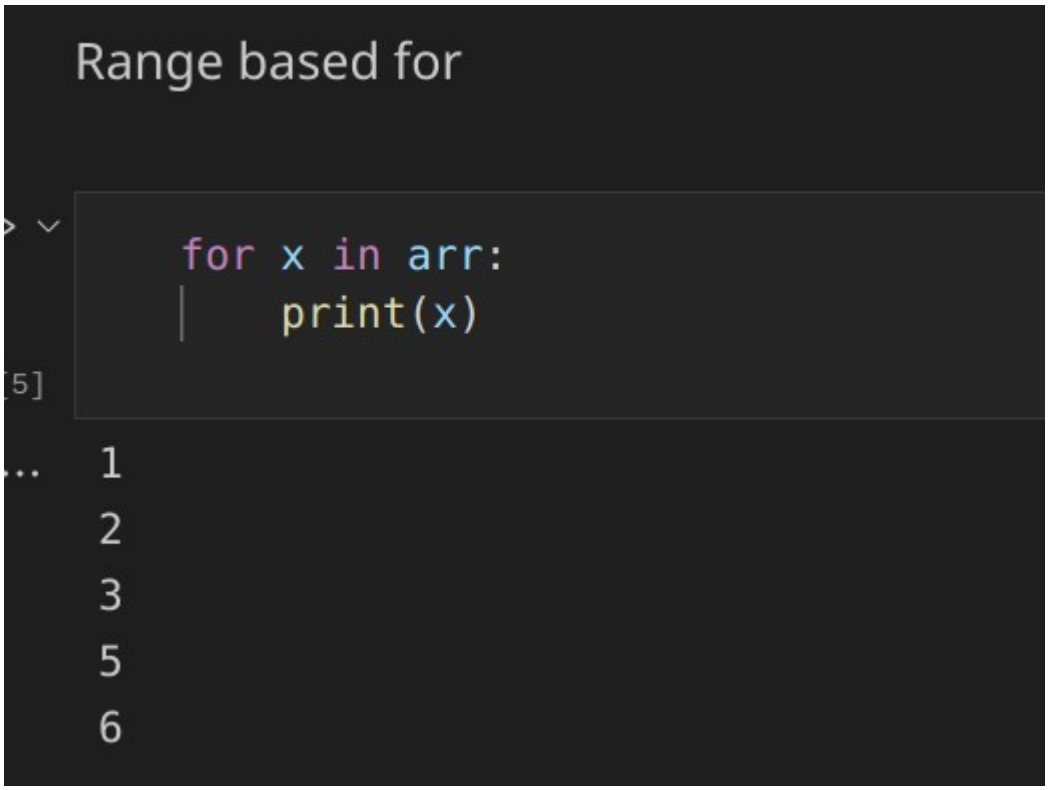
```
Good to meet you Pratyush
```

Code 4

Use for loop to print an array using indexing schemes



Code 5
print array using range based for loop



Code 6
print array using print function

```
print(arr)
```

```
[1, 2, 3, 5, 6]
```

Code 7
Build an Chat app using while and if elif else

```
i=0
while(i<5):
    i+=1
    command = input('Command: ')
    if(command == "Hello"):
        print("Hello")
    elif(command == "Hi"):
        name = input('Name: ')
        print(f"Hi, {name}")
    elif(command == "namaste"):
        name = input('Name: ')
        print(f"namaste, {name}")
    else:
        print(f"Good to meet you {command}")
```

```
Hello
Hi, Pratyush
namaste, India
Good to meet you Soumya
Hello
```

Code 8
Print a butterfly

```python
n = int(input('n: '))
for i in range(n):
    print('*' * (i+1), end="")
    print(' ' * (2*(n-i)-2), end="")
    print('*' * (i+1))
for i in range(1, n):
    print('*' * (n-i), end='')
    print(' ' * (2*i), end='')
    print('*' * (n-i))
```

```
*               *
**             **
***           ***
****         ****
*****       *****
******     ******
***************
******     ******
*****       *****
****         ****
***           ***
**             **
*               *
```

Code 9
Print a lower triangle

```
n = int(input('n: '))
for i in range(n):
    print('*' * (i+1))
```

```
*
**
***
****
*****
******
*******
********
*********
**********
```

Code 10
Print an upper triangle

```
n = int(input('n: '))
for i in range(n):
    print('*' * (n-i))
```

```
******
*****
****
***
**
*
```