

# Feb24 DSA Day3

February 24, 2021

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

```
[1]: print('hello' * 3)
```

```
hellohellohello
```

```
[2]: for i in range(1, 5):  
      print('*' * i)
```

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

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

```
[3]: for i in range(1, 5):  
      print(' ' * (4 - i) + '*' * i)
```

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

## 1 Arrays Using List

```
[4]: arr = [int(i) for i in input('Enter values: ').split()]  
      print(arr)
```

```
Enter values: 10 20 30 40 50
```

```
[10, 20, 30, 40, 50]
```

```
10, 20, 30, 40, 50 15 10 20 30 40 50
```

```
[5]: arr.insert(0, 15)  
      print(arr)
```

```
[15, 10, 20, 30, 40, 50]
```

```
s = "hello"
print(s[0])
```

```
s[0] = 'w' #string is immutable
```

[illegible]

```
<ipython-input-8-8eb28e100848> in <module>
----> 1 s[0] = 'w'
```

```
TypeError: 'str' object does not support item assignment
```

```
l = [10, 20, 30, 40, 50]
print(l[0])
```

```
l[0] = 15 #list is mutable
```

```
print(1)
```

[15, 20, 30, 40, 50]

```
print(arr)
```

[15, 10, 20, 30, 40, 50]

```
arr.insert(10, 55)
print(arr)
```

[15, 10, 20, 30, 40, 50, 55]

```
arr.append(60)
print(arr)
```

[15, 10, 20, 30, 40, 50, 55, 60]

```
arr.pop()
print(arr)
```

```
[15, 10, 20, 30, 40, 50, 55]
```

```
[15]: arr.pop(0)
      print(arr)
```

```
[10, 20, 30, 40, 50, 55]
```

```
[16]: arr.remove(55)
      print(arr)
```

```
[10, 20, 30, 40, 50]
```

```
[17]: arr.remove(25)
```

```

      □
↳ -----

      ValueError                                Traceback (most recent call↳
↳ last)

      <ipython-input-17-14ec16cfbb47> in <module>
      ----> 1 arr.remove(25)

      ValueError: list.remove(x): x not in list
```

```
[19]: l = [10, 20, 30, 40, 50, 50, 50, 50, 50, 50, 60]
      l.remove(50)
      print(l)
```

```
[10, 20, 30, 40, 50, 50, 50, 50, 50, 60]
```

```
[20]: x = int(input('Enter value to insert: '))
      l.insert(0, x)
      print(l)
```

```
Enter value to insert: 5
```

```
[5, 10, 20, 30, 40, 50, 50, 50, 50, 50, 60]
```

## 1.1 List Slicing

```
[25]: l = [10, 20, 30, 40, 50, 60]
      print(l[3])
      print(l[1 : 4])
      print(l[1 : ])
      print(l[ : 4])
```

```
print(l[:])
```

```
40
[20, 30, 40]
[20, 30, 40, 50, 60]
[10, 20, 30, 40]
[10, 20, 30, 40, 50, 60]
```

```
[29]: print(l)
      print(l[: : 2]) #start, end, step
      print(l[: : 3])
```

```
[10, 20, 30, 40, 50, 60]
[10, 30, 50]
[10, 40]
```

```
[35]: print(l[::-1])
      print(l[::-2])
```

```
[60, 50, 40, 30, 20, 10]
[60, 40, 20]
```

```
[31]: s = "welcome"
      print(s[::-1])
```

```
emoclew
```

```
[33]: print(l)
      print(l[-2])
```

```
[10, 20, 30, 40, 50, 60]
50
```

```
[ ]:
```