

**1. Find outputs (Homework)**

```
a = "Rama Rao"  
print(a) #Rama Rao  
  
print(type(a)) #class 'str'  
  
print(id(a)) #Some random address assigned by the IDE  
  
b = 'Hyd'  
  
print(b) #Hyd  
  
c = """Hyd is green city.  
  
Hyd is hitec city.  
  
Hyd is beautiful city."""  
  
print(c) """Hyd is green city.  
  
Hyd is hitec city.  
  
Hyd is beautiful city."""
```

**2. Index demo program (Homework)**

```
a = 'Hyd'  
  
print(How to print 'H' of object 'a') #a[0] / a[-3]  
  
print(How to print 'y' of object 'a') #a[1] / a[-2]  
  
print(How to print 'd' of object 'a') #a[2] / a[-1]  
  
print(a[3]) #Error #Reason no index found  
  
print(How to print 'd' of object 'a') #a[2] / a[-1]  
  
print(How to print 'y' of object 'a') #a[1] / a[-2]  
  
print(How to print 'H' of object 'a') #a[0] / a[-3]
```

```
print(a[-4]) #Error #Reason no index found  
print(a[0] == a[-3]) #True  
a[2] = 'c' #Error #Reason string object only supports multiple items say like characters  
print(25[0]) #Error #Reason both can't be numbers  
print('25'[0]) #2  
print(True[1]) #Error #Reason Bool value doesn't have index  
print('True'[1]) #r
```

### 3. Find outputs (Homework)

```
a = 'Hyd'  
print(a * 3) #HydHydHyd  
print(a * 2) #HydHyd  
print(a * 1) #Hyd  
print(a * 0) #Empty string  
print(a * -1) #Empty string  
print(25 * 3) #75  
print('25' * 3) #252525  
print('25' * 4.0) #Error #Reason a string can't be multiplied with a float object  
print(3 * 'Hyd') #HydHydHyd  
print('25' * True) #25
```

### 4. Tricky program

#### Find outputs (Home work)

```
a = 'Hyd'
```

```
print(a , id(a)) #Hyd and address assigned to the string object by the IDE
```

```
a = a * 3 # It is valid (or) invalid – Valid
```

```
print(a , id(a)) #HydHydHyd and address assigned to the new updated 'a' by the IDE
```

### 5. len() function (Home work)

```
print(len('Hyd')) #3
```

```
print(len('Rama Rao')) #8
```

```
print(len('9247')) #4
```

```
print(len('')) #0
```

```
print(len(' ')) #1
```

```
print(len(689)) #Error #Reason len() function is only applicable for string objects but not integer objects
```

### 6. Find outputs (Home work)

```
a = "Hyd"
```

```
print(a) #Hyd
```

```
print(len(a)) #4
```

```
print(a[0]) #H
```

```
print("Hyd") #Error #Reason improper syntax – in terms of usage of quotation marks
```

```
b = "Hyd"
```

```
print(b) #Hyd
```

```
print(len(b)) #5
```

### 7. Find outputs

```
a = 'Sankar Dayal Sarma'
```

```
print(a[7 : 12]) #string from indexes 7 to 11 in steps of 1 i.e. Dayal
```

```
print(a[7 : ]) #string from index 7 to end of the string i.e. Dayal Sarma  
print(a[ : 6]) #string from index 0 to 5 in steps of 1 i.e. Sankar  
print(a[ : ]) #Entire string from start to end / 0 to 17 i.e. Sankar Dayal Sarma  
print(a[::]) #Entire string in steps of by default 1 i.e. Sankar Dayal Sarma  
print(a[1 : 10 : 2]) #string from indexes 1 to 9 in steps of 2 i.e. akrDy  
print(a[0 :: 2]) #string from indexes 0 to end in steps of 2 i.e. Sna aa am  
print(a[1 :: 2]) #string from indexes 1 to end in steps of 2 i.e. akrDylSra  
print(a[-5 : -1]) #string from index -5 to -2 i.e. Sarm  
print(a[::-1]) # a[-1 : -19 : -1] -> string from indexes -1 to -18 in steps of -1 i.e. Reverse string  
print(a[-1:-5:-1]) #string from index -1 to -4 in steps of -1 i.e. amra  
print(a[:: -2]) #Reverse of string but in steps of 2 i.e. arSlyDaka  
print(a[3 : -3]) #string from index 3 to 4th character (i.e. due to -3) from the end i.e. kar Dayal Sa  
print(a[2 : -5]) #string from index 2 to 6th character (i.e. due to -5) from the end i.e. nkar Dayal  
print(a[-1:-5]) #empty string as one can't move ahead or forward  
print(a[3 : 3]) #empty string as both are same indexes
```

## 8. Find outputs (Homework)

```
a = 'A'  
print(a[1]) #Error #Reason index not found  
print(a[1:]) #Empty string
```