Module1

For Loop

In [12]:

```
for i in range (65,68):
    for j in range(65,i+1):
        print(chr(j),end="")
    print()


for i in range(1,6):
    print()
    print()
    for j in range(1, i + 1):
        print(chr(ord('A')+j - 1),end ="  ")
#print("",end=" ")
```

```
A
AB
ABC


A

A  B

A  B  C

A  B  C  D

A  B  C  D  E
```

In [13]:

```
for i in range(4):
    for j in range(1,i+1):
        print(j,end='')
    print()
```

```
1
12
123
```

In [20]:

```
n=4
for i in range(n):
    print('1'*i,end='')
    print()
```

```
1
11
111
```

In [21]:

```
n=4
for i in range(1,n):
    for j in range(1, i+1):
        print(j, end="")
    print()
```

```
1
12
123
```

In [23]:

```
n = 4
for i in range(n):
    print('# '*i,end='')
    print()
    print()
```

```
#

# #

# # #
```

In [27]:

```
#que1
for i in range (65,68):
    for j in range(65,i+1):
        print(chr(j),end=" ")
    print()
#que2
n=4
for i in range(n):
    for j in range(1,i+1):
        print(j,end='')
    print()
#que3
n=4
for i in range(n):
    print('1'*i,end='')
    print()
#que4
n = 4
for i in range(n):
    print('# '*i,end='')
    print()
    print()
```

```
A
A B
A B C

1
12
123

1
11
111


#

# #

# # #
```

While Loop

In [35]:

```
num=int(input("enter number: "))
rev=0
temp=num
while num>0:
    digit = num%10
    rev=rev*10+digit
    num = num//10
print("rev of number:",rev)
```

```
enter number: 45
rev of number: 54
```

In [37]:

```
num=int(input("enter number: "))
rev=0
temp=num
while num>0:
    digit = num%10
    rev=rev*10+digit
    num = num//10
print("rev of number:",rev)
if temp == rev:
    print("its an palindrome")
else:
    print("It is not")
```

```
enter number: 47
rev of number: 74
It is not
```

In [38]:

```
num=int(input("enter number: "))
sum_val=0
temp=num
while num>0:
    digit = num%10
    sum_val=sum_val+digit
    num = num//10
print("Sum of digits is",sum_val)
```

```
enter number: 456
Sum of digits is 15
```

In [42]:

```
num=int(input("enter number: "))
sum_val=0
temp=num
while num>0:
    digit = num%10
    sum_val=sum_val+digit**3
    num = num//10
print("Sum of cube of digits is",sum_val)
if temp == sum_val:
    print("Its an Armstrong number")
else:
    print("Its not")
```

```
enter number: 5
Sum of cube of digits is 125
Its not
```

In [46]:

```
num = int(input("Enter a number: "))
temp = num
product = 1
sum_val = 0

while num > 0:
    digit = num % 10
    product = product*digit
    sum_val = sum_val + digit
    num = num//10

print(product)
print(sum_val)
result = product + sum_val

if(result == temp):
    print("Its a two digit Special number")
else:
    print("Its not a two digit Special number")
```

```
Enter a number: 59
45
14
Its a two digit Special number
```

ConditionalStatements

In [58]:

```
sal=float(input("Enter you current salary amount:"))
exp=int(input("Enter you work experience in years:"))

bonus=0
if(sal<10000):
    bonus=0.12*sal
elif(exp<2):
    bonus=0.2*sal
elif(exp>=5):
    bonus=0.13*sal
else:
    print("Enter the details required correctly")
print("Your bonus amount:",bonus)
print("Your new salary :",sal+bonus)
```

```
Enter you current salary amount:9999
Enter you work experience in years:5
Your bonus amount: 1199.8799999999999
Your new salary : 11198.88
```

In [60]:

```
print("Welcome..")
while True:
    print('1.Model\n2.Colour\n3.Price\n4.Location\n5.Exit')
    ch=int(input('Enter choice:'))
    if ch==1:
        print('1.Royal Enfield\n2.Pulsar\n3.KTM Duke')
        print("For more info about model select the respective options")
        sel = int(input("1 for RE \n2 for Pulsar\n3 for KTM Duke" ))
        if sel == 1:
            print("Colours available are grey,black")
            print("Cost of the bike is 1,50,000")
            print("Available in the location: Porur,Adayar")
        if sel == 2:
            print("Colours available are Black,Red")
            print("Cost of the bike is 1,20,000")
            print("Available in the location: valsaravakkam,T Nagar")
        if sel == 3:
            print("Colours available are Orange")
            print("Cost of the bike is 2,00,000")
            print("Available in the location: Katupakkam,Vadapalani")

    elif ch==2:
        print("""For Royal Enfield the Colours available are grey,black
        For Pulsar the Colours available are Black,Red
        For Duke the Colours available are Orange""")

    elif ch==3:
        print('all price')
    elif ch==4:
        print('all loc')
    elif ch==5:
        print('bye')
        break
    else:
        print('imcorrect opt')

```

```
Welcome..
1 for RE
2 for Pulsar
3 for KTM Duke1
Colours available are grey,black
Cost of the bike is 1,50,000
Available in the location: Porur,Adayar
```

In [62]:

```
print("Welcome..")
while 1:
    print('1 for Model')
    ch=int(input('Enter choice:'))
    if ch==1:
        print('Available Models:\n1.Royal Enfield\n2.Pulsar\n3.KTM Duke')
        sel = int(input("1 for Royal Enfield\n2 for Pulsar\n3 for KTM Duke"))
        if sel == 1:
            print("1 for Royal Enfield Himalayan 2 for Royal En")
        if sel == 2:
            print("Colours available are Black,Red")
            print("Cost of the bike is 1,20,000")
            print("Available in the location: valsaravakkam,T Nagar")
        if sel == 3:
            print("Colours available are Orange")
            print("Cost of the bike is 2,00,000")
            print("Available in the location: Katupakkam,Vadapalani")
```

```
Welcome..
1 for Model
Enter choice:1
Available Models:
1.Royal Enfield
2.Pulsar
3.KTM Duke
1.Royal Enfield
2.Pulsar
3.KTM Duke1
Colours available are grey,black
Cost of the bike is 1,50,000
Available in the location: Porur,Adayar
1 for Model
Enter choice:2
1 for Model
Enter choice:1
Available Models:
1.Royal Enfield
2.Pulsar
3.KTM Duke
1.Royal Enfield
2.Pulsar
3.KTM Duke3
Colours available are Orange
Cost of the bike is 2,00,000
Available in the location: Katupakkam,Vadapalani
1 for Model
Enter choice:5
1 for Model
Enter choice:5
1 for Model
Enter choice:1
Available Models:
1.Royal Enfield
```

```
2.Pulsar
3.KTM Duke

---------------------------------------------------------------------------
KeyboardInterrupt                         Traceback (most recent call last)
Input In [62], in <cell line: 3>()
      5 if ch==1:
      6     print('Available Models:\n1.Royal Enfield\n2.Pulsar\n3.KTM Duke'
)
----> 7     sel = int(input("1.Royal Enfield\n2.Pulsar\n3.KTM Duke"))
      8     if sel == 1:
      9         print("Colours available are grey,black")

File ~\anaconda3\lib\site-packages\ipykernel\kernelbase.py:1075, in Kernel.r
aw_input(self, prompt)
   1071 if not self._allow_stdin:
   1072     raise StdinNotImplementedError(
   1073         "raw_input was called, but this frontend does not support in
put requests."
   1074     )
-> 1075 return self._input_request(
   1076     str(prompt),
   1077     self._parent_ident["shell"],
   1078     self.get_parent("shell"),
   1079     password=False,
   1080 )

File ~\anaconda3\lib\site-packages\ipykernel\kernelbase.py:1120, in Kernel._
input_request(self, prompt, ident, parent, password)
   1117             break
   1118 except KeyboardInterrupt:
   1119     # re-raise KeyboardInterrupt, to truncate traceback
-> 1120     raise KeyboardInterrupt("Interrupted by user") from None
   1121 except Exception:
   1122     self.log.warning("Invalid Message:", exc_info=True)

KeyboardInterrupt: Interrupted by user



1.Royal Enfield
2.Pulsar
3.KTM Duke
```

Module3

In [77]:

```
def cost(nights):
    print (1500*nights)
    def plane_ride_cost(city):
        hour = int(input("Enter the no.of hours: "))
        sel = int(input("Choose Any one:\n1 for CMBT\n2 for AnnaNagar\n3 for OMR"))
        if sel == 1:
            print( "The amount to be paid is",hour*183)
        elif sel == 2:
            print( "The amount to be paid is" ,hour*222)
        elif sel == 3:
            print( "The amount to be paid is", hour*475)
    plane_ride_cost(sel)
cost(nights = int(input("Enter the no.of nights stayed: ")))
```

```
Enter the no.of nights stayed: 5
7500
Enter the no.of hours: 8
Choose Any one:
1 for CMBT
2 for AnnaNagar
3 for OMR1
The amount to be paid is 1464
```

In [81]:

```
def cost(nights):
    print (1500*nights)
def plane_ride_cost(city):
    hour = int(input("Enter the no.of hours: "))
    sel = int(input("Choose Any one:\n1 for CMBT\n2 for AnnaNagar\n3 for OMR"))
    if sel == 1:
        print( "The amount to be paid is",hour*183)
    elif sel == 2:
        print( "The amount to be paid is" ,hour*222)
    elif sel == 3:
        print( "The amount to be paid is", hour*475)
    else:
        pass
plane_ride_cost(sel)
cost(nights = int(input("Enter the no.of nights stayed: ")))
```

```
Enter the no.of hours: 8
Choose Any one:
1 for CMBT
2 for AnnaNagar
3 for OMR1
The amount to be paid is 1464
Enter the no.of nights stayed: 6
9000
```

In [18]:

```
s = [265,24,98]
s.insert(2,[78,45,56])
print(s)
del(s[2][2])
print(s)
s.remove(2)
s

```

```
[265, 24, [78, 45, 56], 98]
[265, 24, [78, 45], 98]
```

```
---------------------------------------------------------------------------
ValueError                                Traceback (most recent call last)
Input In [18], in <cell line: 6>()
      4 del(s[2][2])
      5 print(s)
----> 6 s.remove(2)
      7 s

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

In [44]:

```
def func_name():
    l = []
    fp = open("Arjun.txt")
    a = fp.readlines()
    for i in range(len(a)):
        val = a[i].replace("\n","")
        val = val.split(" ")
        print(val)
        if val[0].lower() == "append":
            l.append(val[1])
        elif val[0].lower() == "insert":
            l.insert(int(val[1]),int(val[2]))
        elif val[0].lower() == "delete":
            r = val[1]
            l.pop(int(r))
        elif val[0].lower() == "update":
             l[int(val[1])] = val[2]
        print(l)
    return l
func_name()
```

```
['Append', '2']
['2']
['Append', '14']
['2', '14']
['Append', '21']
['2', '14', '21']
['insert', '2', '12']
['2', '14', 12, '21']
['append', '1']
['2', '14', 12, '21', '1']
['update', '1', '11']
['2', '11', 12, '21', '1']
['Delete', '0']
['11', 12, '21', '1']
['appEnd', '81']
['11', 12, '21', '1', '81']
['delete', '2']
['11', 12, '1', '81']
['insert', '1', '14']
['11', 14, 12, '1', '81']
['Append', '4']
['11', 14, 12, '1', '81', '4']
['Append', '12']
['11', 14, 12, '1', '81', '4', '12']
['Delete', '2']
['11', 14, '1', '81', '4', '12']
```

Out[44]:

```
['11', 14, '1', '81', '4', '12']
```

file input - update delete insert(position) lst append()

In [ ]:

```
1
```

In [ ]:

```
1
```

In [ ]:

```
1
```

In [ ]:

```
1
```

In [ ]:

```
1
```

In [ ]:

```
1
```

In [ ]:

```
1
```

In [ ]:

```
1
```

In [ ]:

```
1
```