In [37]:
```
# Determine the grade
n=float(input('Enter your percentage : '))
if n>100 or n<0:
    print('Invalid input from user.')
elif n>85:
    print('GRADE:A+')
elif n>=65 or n<=85:
    print('GRADE:A')
elif n>=45 or n<65:
    print('GRADE:B')
elif n>=25 or n<45:
    print('GRADE:C')
else:
    print('GRADE:D')
```

```
Enter your percentage : 101
Invalid input from user.
```

In [36]:
```
# Printing according to user
ch=input('Press F for forward printing or Press B for backward printing : ')
if ch=='F':
    st=int(input('Enter starting point : '))
    end=int(input('Enter ending point : '))
    upd=int(input('Enter updation : '))
    ch1=input('Press R for row printing or Press C for column printing:')
    if ch1=='R':
         if st<=end:
            for i in range(st,end+1,upd):
                print(i,end=' ')
         else:
            print('Invalid starting and ending point.')
    elif ch1=='C':
        if st<=end:
            for i in range(st,end+1,upd):
                print(i)
        else:
            print('Invalid starting and ending point.')
    else:
        print('Invalid choice.')
elif ch=='B':
    st=int(input('Enter starting point : '))
    end=int(input('Enter ending point : '))
    upd=int(input('Enter updation : '))
    ch2=input('Press R for row printing or Press C for column printing:')
    if ch2=='R':
        if st>=end:
            for i in range(st,end-1,-upd):
                print(i,end=' ')
        else:
            print('Invalid input(s).')
    elif ch2=='C':
         if st>=end:
            for i in range(st,end-1,-upd):
                print(i)
         else:
            print('Invalid input(s).')
    else:
        print('Invalid choice')

else:
    print('Enter either F or B.Thank you.')
```

```
Press F for forward printing or Press B for backward printing : F
Enter starting point : 10
Enter ending point : 50
Enter updation : 5
Press R for row printing or Press C for column printing:R
10 15 20 25 30 35 40 45 50
```

In [38]:
```python
# VOTING SYSTEM
age=int(input('Enter age of the voter : '))
if age>=18 and age<=100:
    print('Welcome, you are eligible for voting.')
    ask=int(input('Enter Aadhar number to continue : '))
    print('Press : 1 for BJP ; 2 for INC ; 3 for AAP ; 4 for BSP ; 5 for RJD')
    ch=input('Enter your decision : ')
    ch=int(ch)
    if ch==1:
        print('You voted for BJP.Thank you.')
    elif ch==2:
        print('You voted for INC.Thank you.')
    elif ch==3:
        print('You voted for AAP.Thank you.')
    elif ch==4:
        print('You voted for BSP.Thank you.')
    elif ch==5:
        print('You voted for RJD.Thank you.')
    else:
        print('Invalid Choice.')
else:
    print('YOU CANNOT VOTE.')
```

```
Enter age of the voter : 100
Welcome, you are eligible for voting.
Enter Aadhar number to continue : 456123
Press : 1 for BJP ; 2 for INC ; 3 for AAP ; 4 for BSP ; 5 for RJD
Enter your decision : 1
You voted for BJP.Thank you.
```

In [42]:
```python
# inventory dictionary
inventory = {}

def addproduct(item,quantity):
    if item in inventory:
        inventory[item] += quantity
    else:
        inventory[item] = quantity

def removeproduct(item, quantity):
    if item in inventory:
        if inventory[item] >= quantity:
            inventory[item] -= quantity
            if inventory[item] == 0:
                del inventory[item]
        else:
            print(f"Not enough {item} in stock.")
    else:
        print(f"{item} not found in inventory.")

def totalitems():
    print("Items in Inventory:")
    for item, quantity in inventory.items():
        print(f"{item}: {quantity}")
addproduct("Apples", 10)
addproduct("Bananas", 15)
```

```
addproduct("Oranges", 20)
removeproduct("Bananas", 5)
totalitems()
```

```
Items in Inventory:
Apples: 10
Bananas: 10
Oranges: 20
```

In [43]:

```
# Simple calculator
def add(x, y):
    return x + y

def subtract(x, y):
    return x - y

def multiply(x, y):
    return x * y

def divide(x, y):
    if y == 0:
        return "Error"
    else:
        return x / y
print("Choose operation : ")
print("1. Add")
print("2. Subtract")
print("3. Multiply")
print("4. Divide")
while True:
    ch = input("Enter choice(1/2/3/4): ")
    if ch in ('1', '2', '3', '4'):
        num1 = float(input("Enter first number: "))
        num2 = float(input("Enter second number: "))
        if ch == '1':
            print(f"The result is {add(num1, num2)}")
        elif ch == '2':
            print(f"The result is {subtract(num1, num2)}")
        elif ch == '3':
            print(f"The result is {multiply(num1, num2)}")
        elif ch == '4':
            print(f"The result is {divide(num1, num2)}")
        nex = input(" Next calculation ? (yes/no): ")
        if nex!= 'yes':
            break
    else:
        print("Invalid Input")
```

```
Select operation:
1. Add
2. Subtract
3. Multiply
4. Divide
Enter choice(1/2/3/4): 2
Enter first number: 45
Enter second number: 42
The result is 3.0
 Next calculation ? (yes/no): yes
Enter choice(1/2/3/4): 4
Enter first number: 54
Enter second number: 2
The result is 27.0
 Next calculation ? (yes/no): g
```