**1. Find the sum, difference, multiplication and quotient of two given numbers.**

# The sum, difference, multiplication and quotient of two given numbers.

a=int(input("Enter first number ="))

b=int(input("Enter second number ="))

s=a+b

print("Sum =",s)

d=a-b

print("Difference =",d)

m=a\*b

print("Multiplication =",m)

q=a//b

print("Quotient =",q)

**2. Enter radius of a circle and find the area and circumference.**

# Find area and circumference of a circle.

r=int(input("Enter the radius of the circle ="))

a=3.14\*3.14\*r

print("Area of the circle =",a)

c=2\*3.14\*r

print("Circumference of the circle =",c)

**3. Enter a temperature in centigrade and change to Fahrenheit.**

# Convert the temperature from centigrade to fahrenheit.

c=int(input("Enter a temperature in Centigrade ="))

a=9\*c

b=a/5

f=b+32

print("Temperature in Fahrenheit =",f)

**4. Find the largest of 3 numbers.**

# Find the largest of 3 numbers.

a=int(input("Enter first number ="))

b=int(input("Enter second number ="))

c=int(input("Enter third number ="))

if a>b and a>c:

print("Largest number is =",a)

if b>a and b>c:

print("Largest number is =",b)

if c>a and c>b:

print("Largest number is =",c)

**5. Find sum of the 2 larger no within 3 given no.**

# Sum of two larger number.

a=int(input("Enter first number ="))

b=int(input("Enter second number ="))

c=int(input("Enter third number ="))

if a<b and a<c:

m=a

print("The smallest number =",m)

if b<a and b<c:

m=b

print("The smallest number =",m)

if c<a and c<b:

m=c

print("The smallest number =",m)

s=(a+b+c)-m

print("Sum =",s)

**6. Enter 3 sides of a triangle and check whether it is valid or not.**

# Check whether the triangle is valid or not.

a=int(input("Enter one side ="))

b=int(input("Enter other side ="))

c=int(input("Enter another side ="))

if a+b>c and b+c>a and c+a>b:

print("The triangle is valid")

else:

print("The triangle is not valid")

**7. Enter 3 sides of a triangle and say what type it is according to side.**

# Say what type of triangle is according to side.

a=int(input("Enter one side ="))

b=int(input("Enter other side ="))

c=int(input("Enter another side ="))

if a==b and b==c and c==a:

print("The triangle is Equilateral")

if a==b and b!=c and c!=a:

print("The triangle is Isosceles")

if a!=b and b!=c and c!=a:

print("The triangle is Scalene")

**8. Enter 3 angles of a triangle and say what type it is according to angle.**

# Say what type of triangle is according to angle.

a=int(input("Enter one angle ="))

b=int(input("Enter other angle ="))

c=int(input("Enter another angle ="))

if a<90 and b<90 and c<90:

print("The triangle is Acute triangle")

if a==90 or b==90 or c==90:

print("The triangle is Right angle triangle")

if a>90 or b>90 or c>90:

print("The triangle is Obtuse triangle")

**9. Enter a number and check whether it is odd or even.**

# Check a number whether it is even or odd.

a=int(input("Enter a number ="))

if a%2==0:

print("Even number")

else:

print("Odd number")

**10. To check whether a given number is positive, negative or zero.**

# Check a number is positive, negative or zero.

a=int(input("Enter a number ="))

if a>0:

print("The number is positive number")

if a<0:

print("The number is negative number")

if a==0:

print("The number is zero")

**11. Using ternary operator do the above program.**

**12. To check whether a given number is 2 digit, 3 digit or not.**

# Check a number is 2 digit, 3 digit or not.

a=int(input("Enter a number ="))

if a>9 and a<100:

print("The number is 2 digit number")

else:

print("The number is not a 2 digit number")

if a>99 and a<1000:

print("The number is 3 digit number")

else:

print("The number is not a 3 digit number")

**13. To check whether a given number is 3 digit number and divisible by 3 or not.**

# To check whether a number is 3digit or not and divisible by 3 or not.

a=int(input("Enter a number ="))

if a>99 and a<1000:

m=a

print("The number is 3 digit number")

else:

print("The number is not a 3 digit number")

if m%3==0:

print("The number is divisible by 3")

else:

print("The number is not divisible by 3")

**14. Enter 3 integer and check whether all of them are unique (different) from each other or not.**

# Check given 3 integers are same or different.

a=int(input("Enter first integer ="))

b=int(input("Enter second integer ="))

c=int(input("Enter third integer ="))

if a!=b and b!=c and c!=a:

print("unique integer")

else:

print("Same integer")

**17. Enter a year and check whether it is leap year or not.**

# To check a year is leap year or not.

a=int(input("Enter a year ="))

if a%4==0:

print("Leap year")

else:

print("Not leap year")

**18. Enter a 5 digit number and check whether it is 5 digit number or not and print the central digit.**

**19. Enter a time in second and then change to hours, minutes and second.**

# Enter a number in second and change it to minute and hour.

a=int(input("Enter a time in second ="))

b= a/60

c=a/3600

print("Time in second",a)

print("Time in minute",b)

print("Time in hour",c)

**20. Enter two times in hour, minute, second and then add two time.**

# Enter two time in hour, minute, second and then add two time.

a=int(input("Enter a time in hour ="))

b=int(input("Enter a time in minute ="))

c=int(input("Enter a time in second ="))

a=(a\*3600)\*2

b=(b\*60)\*2

c=c\*2

s=a+b+c

s=s\*2

print("The sum",s)

**24. To change the values of the variables. (Swapping without an extra variable)**

# To change the values of the variables

a=int(input("enter a number"))

b=int(input("enter another number"))

a=a+b

b=a-b

a=a-b

print(a)

print(b)

**25. To generate odd numbers from 1 to 100.**

# To generate odd numbers from 50 to 100

for i in range (1,101):

if i%2!=0:

print("odd numbers=",i)

**26. To generate even numbers from 50 to 100.**

#To generate even numbers from 50 to 100

for i in range (50,101):

if i%2==0:

print("Even numbers=",i)

**27. To display numbers from 50 to 100 which are divisible by 3 and 5.**

# To display numbers from 50 to 100 which are divisible by 3 and 5.

for i in range (50,101):

if i%3==0 and i%5==0:

print(i)

**28. To generate natural numbers from 1 to a given numbers.**

# To generate natural numbers from 1 to a given numbers.

a=int(input("Enter a number ="))

for i in range (1,a+1):

print(i)

**29. To generate natural numbers from 100 to 1.**

#To generate natural numbers from 100 to 1.

for i in range (100,0,-1):

print(i)

**30. To find the sum of natural numbers from 1 to a given numbers.**

# To find the sum of natural numbers from 1 to a given numbers.

a=int(input("Enter a number ="))

b=0

for i in range (1,a+1):

b=b+i

print(b)

**31. To find the factorial of a number.**

# To find the factorial of a given number.

a=int(input("Enter a number ="))

b=1

for i in range (a,0,-1):

b=b\*i

print(b)

**32. To print the factors of a given number.**

# To print the factors of a given number.

a=int(input("Enter a number ="))

for i in range (1,a+1):

if a%i==0:

print("Factors of the given number is =",i)

**33. To find to check whether a number is prime or not.**

# To check a number is Prime or not.

n=int(input("Enter a number ="))

c=0

for i in range(1,n+1):

if n%i==0:

c=c+1

if c==2:

print("Prime number")

else:

print("Not a Prime number")

**34. To check whether a number is perfect or not.**

# Check a number is perfect or not.

a=int(input("Enter a number ="))

b=0

for i in range (1,a):

if a%i==0:

b=b+i

print(b)

if a==b:

print("The number is a perfect number")

else:

print("The number is a not a perfect number")

**35. To check a number is Abundant Number or not.**

# Check a number is Abundant number or not.

a=int(input("Enter a number ="))

b=0

for i in range (1,a):

if a%i==0:

b=b+i

print(b)

if b>a:

print("The number is Abundant number")

else:

print("The number is a not an Abundant number")

37. To find the square root of a given number using loop.

# To find the square root of a given number using loop.

num= int(input("Enter a number ="))

if num<0:

print("Please enter a valid number")

else:

squareroot = num\*\*0.5

print(" Squareroot is",squareroot)

**39. To check whether a number is perfect square or not.**

# To check whether a number is perfect square or not.

def perfectsquare(x):

squareroot=x\*\*0.5

if squareroot==(squareroot//1):

return(x)

else:

return(0)

x=int(input("Enter a number ="))

if x==perfectsquare(x):

print("Yes")

else:

print("No")

**40. To print the Fibonacci series 1, 1, 2, 3, 4, 5, 8, 13, 21…………. Till100.**

# Print the Fibonacci series till 100.

a=1

b=1

print(a," ",b," ")

while a+b<100:

c=a+b

print(c,end=' ')

a=b

b=c

**41. To print first 10 numbers of the Fibonacci series starting with 1, 1.**

# Print the first 10 fibonacci series.

a=1

b=1

print(a," ",b," ")

for i in range(3,11):

c=a+b

print(c,end=' ')

a=b

b=c

**42. To print the Non - Fibonacci numbers from 1 to 100 of the series 1, 1, 2, 3, 4, 5, 8…………..**

**43. Enter some numbers and find their sum.**

# Enter some numbers and find their sum.

n=int(input("Enter a range of number ="))

s=0

for i in range (1,n+1):

a=int(input("Enter a number ="))

s=s+a

print(s)

**44. Enter some number and find how many of them is odd and how many of them is even.**

# Enter some number and find how many of them is odd and how many of them is even.

k=0

c=0

n=int(input("Enter a range of number ="))

for i in range (1,n+1):

a=int(input("Enter a number ="))

if a%2==0:

c=c+1

else:

k=k+1

print("even number=",c," ","odd numbers=",k)

**45. Enter some number and find the sum of positive even integer, positive odd integer and negative.**

# Enter some number and find the sum of positive even integer, positive odd integer and negative.

e=0

o=0

neg=0

n=int(input("Enter a range of number ="))

for i in range (1,n+1):

a=int(input("Enter a number ="))

if a>0 and a%2==0:

e=e+a

elif a>0 and a%2!=0:

o=o+a

else:

neg=neg+a

print("Sum of even numbers=",e," ","Sum of odd numbers=",o," ","Sum of odd numbers=",neg)

**46. Enter some numbers and find the average of odd and even numbers separately.**

# Enter some numbers and find the average of odd and even numbers separately.

e=0

o=0

sum\_even=0

sum\_odd=0

n=int(input("Enter a range of number ="))

for i in range (1,n+1):

a=int(input("Enter a number ="))

if a%2==0:

e=e+1

sum\_even= sum\_even+a

else:

o=o+1

sum\_odd= sum\_odd+a

ave\_even=sum\_even/e

ave\_odd=sum\_odd/o

print("average of even is",ave\_even)

print("average of odd is",ave\_odd)

**47. Enter some numbers and find how many 1 digit, 2 digit and 3 digit numbers are there.**

# Enter some numbers and find how many 1 digit, 2 digit and 3 digit numbers are there.

t=0

o=0

d=0

n=int(input("Enter a range of number ="))

for i in range (1,n+1):

a=int(input("Enter a number ="))

if a>0 and a<10:

o=o+1

if a>9 and a<100:

t=t+1

if a>99 and a<1000:

d=d+1

print("1 digit",o)

print("2 digit",t)

print("3 digit",d)

**48. Enter a number and print the multiplication table upto 10 in tabular form**.

n=int(input("Enter a number ="))

for i in range (1,11):

print(n,"x",i,"=",n\*i)

**Output:**

Enter a number =12

12 x 1 = 12

12 x 2 = 24

12 x 3 = 36

12 x 4 = 48

12 x 5 = 60

12 x 6 = 72

12 x 7 = 84

12 x 8 = 96

12 x 9 = 108

12 x 10 = 120

**49. Enter a number and find sum of numbers in following format: + 1 + 2 +3 + 4 +…………+ n =?**

# Enter a number and find sum of numbers in following format: + 1 + 2 +3 + 4 +…………+ n =?

n=int(input("Enter a number ="))

s=0

for i in range (1,n+1):

s=s+i

print("+",i,end=' ')

print("=",s)

Enter a number =10

+ 1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 + 9 + 10 = 55

**50. Enter some numbers and find the maximum and minimum.**

# Enter some numbers and find the maximum and minimum.

n=int(input("Enter a range of number ="))

a=int(input("Enter a number ="))

max=a

min=a

for i in range (1,n):

a=int(input("Enter a number ="))

if a>max:

max=a

if a<min:

min=a

print(max," ",min)

**51. Input 10 integer and display the largest 2-digit number among them.**

# Input 10 integer and display the largest 2-digit number among them.

n=10

a=int(input("Enter a number ="))

l=a

for i in range (1,10):

a=int(input("Enter a number ="))

if l<a and l>9 and l<100:

l=a

print("largest 2 digit number=",l)

**52. Enter some number and find the largest even and smallest odd integer.**

# Enter some number and find the largest even and smallest odd integer.

n=int(input("Enter a range of number ="))

a=int(input("Enter a number ="))

max=a

min=a

for i in range (1,n):

a=int(input("Enter a number ="))

if a>max and a%2==0:

max=a

if a<min and a%2!=0:

min=a

print("largest even number=",max)

print("smallest odd number=",min)

**53. Enter 10 numbers and check whether all entered numbers are same or not.**

# Enter 10 numbers and check whether all entered numbers are same or not.

n=10

a=int(input("Enter a number ="))

for i in range (1,10):

b=int(input("Enter a number ="))

if a==b:

print("same")

else:

print("not same")

**54. To find the L.C.M and H.C.F of two given numbers.**

# To find the L.C.M and H.C.F of two given numbers.

a=int(input("Enter a number ="))

b=int(input("Enter a number ="))

min=a if a<b else b

for i in range (min,0,-1):

if a%i==0 and b%i==0:

break

print("H.C.F or G.C.D =",i)

max=a if a>b else b

for i in range ( max,a\*b+1):

if i%a==0 and i%b==0:

break

print("L.C.M =",i)

**55. Enter a fraction and find its simplified form.**

# Enter a fraction and find its simplified form.

a=int(input("Enter numerator ="))

b=int(input("Enter denominator ="))

min=a if a<b else b

for i in range (min,0,-1):

if a%i==0 and b%i==0:

break

print("H.C.F or G.C.D =",i)

numerator=a//i

denominator=b//i

print("a/b =",numerator,"/",denominator)

**56. To print the series 1, 4, 9, 16, 25, 36, 49…………….100.**

# print the series.

for i in range (1,11):

c=i\*i

print(c,",",end=' ')

**57. To print the series 1, 1, 1, 2, 4, 8, 9, 27, 4, 16, 64…………….10, 100, 1000.**

# To print the series 1, 1, 1, 2, 4, 8, 9, 27, 4, 16, 64…………….10, 100, 1000.

for i in range (1,11):

a=i\*i

b=i\*i\*i

print(i,",",a,",",b,",",end=' ')

**58. To display the series 1 4 27 256 ……….for N terms.**

# To display the series 1 4 27 256 ……….for N terms.

n=int(input("Enter the term ="))

for i in range (1,n+1):

c=i\*\*i

print(c,end=' ')

**59. To display the series 0 3 8 15 24………..99.**

# To display the series 0 3 8 15 24………..99.

for i in range (0,100):

b=i\*(i+2)

if b<100:

print(b,end=' ')

**62. To find the sum of the Factorials.**

# To find the sum of the factorial of a number.

a=int(input("Enter a number ="))

b=0

for i in range (a,0,-1):

b=b+i

print(b)

63. To print all Deficient Numbers from 1 to 100.

**64. To print Octagonal Numbers from 1 to 100.**

# To print all Octagonal Numbers from 1 to 100.

for i in range (1,101):

n=i\*((3\*i)-2)

print(n)

**65. To print all 4 digit numbers whose first half is twice the second half.**

# To print all 4 digit numbers whose first half is twice the second half.

for i in range (10000):

if i>999 and i<10000:

r=i%100

a=r\*2

n=(a\*100)+r

if n==i:

print(n,end=' ')

66. Enter 10 number and check whether the entered numbers are in ascending order or not.

**68. To print first 15 numbers of the Pell series.**

# Print first 15 numbers of the Pell Series.

a=1

b=2

print(a," ",b," ")

for i in range(3,16):

c=2\*b+a

print(c,end=' ')

a=b

b=c

**78. Enter a number and check whether it is Prime Palindrome or not.**

# Enter a number and check whether it is Prime Palindrome or not.

n=int(input("Enter a number ="))

p=0

t=n

while t!=0:

r=t%10

p=p\*10+r

t=t//10

if p==n:

print("Palindrome number")

else:

print("Not Palindrome number")

c=0

for i in range(1,n+1):

if n%i==0:

c=c+1

if c==2:

print("Prime Palindrome")

else:

print("Not Prime Palindrome")

**79. To print first 5 Octavan Prime numbers.**

**81. Print a number in reverse form.**

# Print a number in reverse form.

n=int(input("Enter a number ="))

p=0

t=n

while t!=0:

r=t%10

p=p\*10+r

t=t//10

print(p)

**82. To find the sum of the digits of a given number.**

# To find the sum of the digits of a given number.

n=int(input("Enter a number ="))

p=0

t=n

while t!=0:

r=t%10

p=p+r

t=t//10

print(p)

**83. To find the number of digits of a number.**

# To find the number of digits of a number.

n=int(input("Enter a number ="))

s=0

t=n

while t!=0:

r=t%10

t=t//10

print(r,end=' ')

**84. Enter a number and count sum of odd digits and even digits separately.**

# Enter a number and count sum of odd digits and even digits separately.

n=int(input("Enter a number ="))

s=0

k=0

e=0

o=0

t=n

while t!=0:

r=t%10

t=t//10

if r%2==0:

e=e+1

s=s+r

print(e,s)

else:

o=o+1

k=k+r

print(o,k)

**88. To check a number is Buzz or not.**

# To check a number is Buzz or not.

n=int(input("Enter a number ="))

r=n%10

if r==7 or n%7==0:

print("Buzz Number")

else:

print("Not Buzz Number")

**89. To check a number is Neon Number or not.**

# To check a number is Neon Number or not.

n=int(input("Enter a number ="))

s=0

t=n

while t!=0:

r=t%10

s=s+r

t=t//10

if s\*s==n:

print("Neon Number")

else:

print("Not Neon Number")

**96.** **Enter a number and check whether it is Palindrome or not.**

# Enter a number and check whether it is Palindrome or not.

n=int(input("Enter a number ="))

p=0

t=n

while t!=0:

r=t%10

p=p\*10+r

t=t//10

if p==n:

print("Palindrome number")

else:

print("Not Palindrome number")

**105. Enter a number and check whether all are even digit or not.**

# Enter a number and check whether all are even digit or not.

n=int(input("Enter a number ="))

e=0

o=0

t=n

while t!=0:

r=t%10

t=t//10

if r%2==0:

e=e+1

print(e," ")

else:

o=o+1

print(" ",o," ")

if o==0:

print("All are even digits")

else:

print("All are not even digits")

**170. To generate the following pattern in generalized form.**

**a. 1**

**1 2**

**1 2 3**

**1 2 3 4**

**1 2 3 4 5**

**1 2 3 4 5 6**

for i in range(1,7):

for j in range(1,i+1):

print(j,end=" ")

print()

**b. 1**

**2 2**

**3 3 3**

**4 4 4 4**

**5 5 5 5 5**

**6 6 6 6 6 6**

for i in range(1,7):

for j in range(i):

print(i,end=" ")

print()

**c. 1 2 3 4 5 6**

**1 2 3 4 5**

**1 2 3 4**

**1 2 3**

**1 2**

**1**

for i in range(6,0,-1):

for j in range(1,i+1):

print(j,end=" ")

print()

**e. 6 5 4 3 2 1**

**6 5 4 3 2**

**6 5 4 3**

**6 5 4**

**6 5**

**6**

for i in range(6,0,-1):

for j in range(6,6-i,-1):

print(j,end=" ")

print()

173. Enter some numbers and store them in an Array, and show them.

# Enter some numbers and store them in an Array, and show them.

a=[]

n=int(input("Enter the range of number ="))

for i in range(n):

k=int(input("Enter the number ="))

a.append(k)

print(a)

174. Enter some numbers and store them in an Array, and show them in reverse order.

# Enter some numbers and store them in an Array, and show them in reverse order.

a=[]

n=int(input("Enter the range of number ="))

for i in range(n):

k=int(input("Enter the number ="))

a.append(k)

print(a)

for j in range(n-1,-1,-1):

print(a[j],end=' ')

Output:

Enter the range of number =9

Enter the number =2

Enter the number =13

Enter the number =34

Enter the number =56

Enter the number =53

Enter the number =46

Enter the number =78

Enter the number =80

Enter the number =93

[2, 13, 34, 56, 53, 46, 78, 80, 93]

93 80 78 46 53 56 34 13 2

175. Find the highest and lowest elements of the array and their position.

176. Store some numbers in the array and reverse each elements.

177. To display every consecutive elements of the array.

# To display every consecutive elements of the array.

a=[]

n=int(input("Enter the range of number ="))

for i in range(n):

b=i-1

a.append(b)

print(a)

178. Swap every even location element with odd location element in the array.

181. Enter some numbers and store them in an array, then enter a number and check whether it exists in the array or not.

**182.** **Enter some numbers and store them in an array, now create two array of odd and even numbers.**

# Enter some numbers and store them in an array, now create two array of odd and even numbers.

a=[]

e=[]

o=[]

n=int(input("How many="))

for i in range (n):

k=int(input("Enter a number="))

a.append(k)

for i in range(n):

if a[i]%2==0:

e.append(a[i])

if a[i]%2!=0:

o.append(a[i])

print(a)

print(e)

print(o)

**183. Store some numbers in the array and then store the odd numbers first and then the even.**

# Store some numbers in the array and then store the odd numbers first and then the even.

a=[]

o=[]

n=int(input("How many="))

for i in range (n):

k=int(input("Enter a number="))

a.append(k)

for i in range(n):

if a[i]%2==1:

o.append(a[i])

for i in range(n):

if a[i]%2==0:

o.append(a[i])

print(a)

print(o)

**184. To store all 3 digit pal-prime numbers in an array and display them.**

# To store all 3 digit pal-prime numbers in an array and display them.

def prime(n):

c=0

for i in range(1,n+1):

if n%i==0:

c=c+1

return(c)

def reverse(n):

d=0

while n>0:

r=n%10

n=n//10

d=d\*10+r

return(d)

a=[]

for i in range (100,1000):

n=i

if(prime(i)==2 and reverse(prime(i))==2):

a.append(n)

print(a)

**185. To change decimal numbers to Binary numbers.**

# To change decimal numbers to Binary numbers.

a=[]

k=int(input("Enter a number="))

c=0

while k>0:

m=k%2

k=k//2

c=c+1

a.append(m)

for i in range(c-1,-1,-1):

print(a[i])

**186. To change decimal numbers to Octal and Hexadecimals.**

# To change decimal numbers to Octal and Hexadecimals.

a=[]

k=int(input("Enter a number="))

c=0

hex=hex(k)

while k>0:

m=k%8

k=k//8

c=c+1

a.append(m)

for i in range(c-1,-1,-1):

print(a[i])

print(hex)

**187. To change octal numbers to Decimals.**

# To change octal numbers to Decimals.

p=0

base=1

n=int(input("Enter a number="))

while n>0:

m=n%10

n=n//10

p=p+m\*base

base=base\*8

print(p)

**188. To reverse the array permanently.**

# To change octal numbers to Decimals.

a=[]

c=0

n=int(input("How many="))

for i in range (n):

k=int(input("Enter a number="))

c=c+1

a.append(k)

for i in range(0,n//2):

t=a[i]

a[i]=a[n-1-i]

a[n-1-i]=t

print(a)

**189. To insert an element at particular location.**

# To insert an element at particular location.

a=[1,2,3,4,5,6,7]

a.insert(4,10)

print(a)

**190. To delete element in a given location.**

# To delete element in a given location.

l=list(range(10))

print(l)

print(l.pop(3))

print(l)

**191. To delete a particular element from an array.**

# To delete a particular element from an array.

elements=[1,2,3,4,5]

elements.remove(3)

print("updated elements list:",elements)

**192. To delete the duplicate elements of an array.**

# To delete the duplicate elements of an array.

def remove(duplicate):

final\_array=[]

for num in duplicate:

if num not in final\_array:

final\_array.append(num)

return(final\_array)

duplicate=[2,4,10,20,5,2,20,4]

print(remove(duplicate))

**196. To find the mean of some numbers.**

# To find the mean of some numbers.

num=[1,2,3,4,5]

n=len(num)

sum=sum(num)

mean=sum/n

print(mean)

197. To find the median of some numbers.

200. To print all the combination of 4 given digits.

**Inheritance program**

class stock:

def getData(self,item,qty,rate,amt):

self.item=item

self.qty=qty

self.rate=rate

self.amt=amt

def displaystock(self):

print(" name item:",self.item)

print("quantity:",self.qty)

print("unit price:",self.rate)

print("net value:",self.amt)

class Purchase(stock):

def getquantity(self,pqty,prate):

self.pqty=pqty

self.prate=prate

def displayquantity(self):

print("purchase:",self.pqty)

print("unit price:",self.prate)

print("update stock:",self.qty+self.pqty)

print("update amount:",(self.qty+self.pqty)\*self.prate)

item=input("Enter item name:")

qty=int(input("Quantity of item:"))

rate=int(input("Unit price of item:"))

amt=int(input("Amount of item:"))

pqty=int(input("New quantity of item:"))

prate=int(input("New unit price:"))

print("Updated Stock")

item1=Purchase()

item1.getData(item,qty,rate,amt)

item1.getquantity(pqty,prate)

item1.displaystock()

item1.displayquantity()

**Output:**

Enter item name:top

Quantity of item:2

Unit price of item:10

Amount of item:20

New quantity of item:2

New unit price:20

Updated Stock

name item: top

quantity: 2

unit price: 10

net value: 20

purchase: 2

unit price: 20

update stock: 4

update amount: 80

**2.**

class Detail:

def getData(self,name,address,telno,rent):

self.name=name

self.address=address

self.telno=telno

self.rent=rent

def displayDetail(self):

print("Name of the customer:",self.name)

print("Address of the customer:",self.address)

print("Phone no. of the customer:",self.telno)

print("Monthly rental charge:",self.rent)

class Bill(Detail):

def getcharge(self,n,amt):

self.n=n

self.amt=amt

def displaycharge(self):

print("Number of calls:",self.n)

m=self.n

if m<101:

self.rate="Only rental charge"

self.amt=self.rent

elif m<201:

self.rate="60 paise per call + rental charge"

self.amt=self.rent+(self.n\*0.60)

elif m<301:

self.rate="80 paise per call + rental charge"

self.amt=self.rent+(self.n\*0.80)

else:

self.rate="1 rupee per call + rental charge"

self.amt=self.rent+(self.n\*1.00)

print("Amount would be paid by the customer:",self.rate,"=",self.amt)

name=input("Enter name of the customer:")

address=input("Enter address of the customer:")

telno=int(input("Enter telephone number of the customer:"))

rent=float(input("Enter monthly rental charge:"))

n=int(input("Enter number of calls:"))

amt=float(input("Customer paid amount:"))

print("Telephone bill")

customer1=Bill()

customer1.getData(name,address,telno,rent)

customer1.getcharge(n,amt)

customer1.displayDetail()

customer1.displaycharge()

**Output:**

Enter name of the customer:Jolly

Enter address of the customer:14/1 B.T.Road,Kolkata

Enter telephone number of the customer:7655347612

Enter monthly rental charge:300

Enter number of calls:250

Customer paid amount:300

Telephone bill

Name of the customer: Jolly

Address of the customer: 14/1 B.T.Road,Kolkata

Phone no. of the customer: 7655347612

Monthly rental charge: 300.0

Number of calls: 250

Amount would be paid by the customer: 80 paise per call + rental charge = 500.0

**3.**

class Product:

def getData(self,name,code,amount):

self.name=name

self.code=code

self.amount=amount

def displayProduct(self):

print("Name of the product:",self.name)

print("Product code:",self.code)

print("Total sale amount:",self.amount)

class Sales(Product):

def getpayamount(self,day,tax,totamt):

self.day=day

self.tax=tax

self.totamt=totamt

def displaypayamount(self):

print("Number of days taken to pay the sale amount:",self.day)

print("The service tax:",self.tax)

m=self.day

if m>30:

self.rate="Actual sale amount + service tax + fine"

self.totamt=self.amount+(self.amount\*self.tax)+(self.day\*0.025)

else:

self.rate="Actual sale amount + service tax"

self.totamt=self.amount+(self.amount\*self.tax)

print("Amount paid by the retailer to the wholesaler:",self.rate,"=",self.totamt)

name=input("Enter name of the product:")

code=int(input("Enter the code:"))

amount=float(input("Enter the amount of the product:"))

day=int(input("Enter number of days:"))

tax=float(input("Enter service tax:"))

totamt=float(input("Retailer paid amount:"))

print("Update Bill")

product1=Sales()

product1.getData(name,code,amount)

product1.getpayamount(day,tax,totamt)

product1.displayProduct()

product1.displaypayamount()

**Output:**

Enter name of the product:lakme

Enter the code:21375

Enter the amount of the product:10000

Enter number of days:40

Enter service tax:0.124

Retailer paid amount:1000

Update Bill

Name of the product: lakme

Product code: 21375

Total sale amount: 10000.0

Number of days taken to pay the sale amount: 40

The service tax: 0.124

Amount paid by the retailer to the wholesaler: Actual sale amount + service tax + fine = 11241.0