

In [3]:

```
select = int(input("1.Enter the Area of Circle\n" "2.Enter the Area of Rectangle\n"
"3.Enter the Area of Square"))
```

```
1.Enter the Area of Circle
2.Enter the Area of Rectangle
3.Enter the Area of Square1
```

In [5]:

```
if (select == 1 ):
    rad = int(input("Enter radius of the circle: "))
    area = (22/7)*rad*rad
    print('Area of the circle is',area)

elif (select == 2 ):
    Side = int(input("Enter side value: "))
    area = Side*Side
    print('Area of the Square is',Area)

elif (select == 3 ):
    length = int(input("Enter length : "))
    breadth = int(input("Enter Breadth: "))
    area = length*breadth
    print('Area of the Rectangle is',area)

else:
    print("Please enter a valid one")
```

```
Enter radius of the circle: 5
Area of the circle is 78.57142857142857
```

In [62]:

```
# Num=153
# sum=0
# Iteration 1:
#     digit=153%10 = 3
#     sum=0+3=3
#     num=153//10= 15
# I2:num=15
#     digit=15%10=5
#     sum=3+5=8
#     num=15//10=1
# I3: num=1
#     digit=1%10=1
#     sum=8+1=9
#     num=1//10=0

# print(sum)
```

PrintingSumOfASingleDigit

In [90]:

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

Enter the number: 27
Sum of 27 is 9

In [63]:

```
# #armstrong number = a number equal to the sum of its digits cubes
# 153 = 1*1*1 + 5*5*5 +3*3*3
# 153 = 1 +125+27
# 153 = 153
# num=153
# sum=0

# while(num>0):

# digit = num % 10
# sum =sum+digit ** 3
# num =num// 10

# i1:
# digit=153%10=3
# sum=0+3**3=27
# num=153//10=15

# i2:
# digit=15%10=5
# sum=27+5**3= 27+125= 152
# num=15//10=1

# i3:
# digit=1%10=1
# sum=152+1**3= 152+1=153
# num=1//10=0
```

Amstrong NUmber

In [108]:

```
num = int(input("Enter the number: "))
temp = num
sum = 0
while(num>0):
    digit = num%10
    sum += digit**3
    num = num//10
if (temp==sum):
    print("It is an Armstrong number")

else:
    print(temp ,"is Not an Armstrong Number")
```

Enter the number: 153

It is an Armstrong number

In [107]:

```
# input: 123
# rev=0
# output:321
#     digit = num % 10
#     rev = rev * 10 + digit
#     num =num// 10

# i1:
#     digit=123%10=3
#     rev=0*10+3=3
#     num=123//10=12
# i2:
#     digit=12%10=2
#     rev=3*10+2=30+2=32
#     num=12//10=1
# i3:
#     digit=1%10=1
#     rev=32*10+1=320+1=321
#     num=1//10=0

# print(rev)
```

ReversingANumber

In [94]:

```
num = int(input("Enter a number: "))
reversed_num = 0

while num != 0:
    digit = num % 10
    reversed_num = reversed_num * 10 + digit
    num //= 10

print("Reversed Number: ",(reversed_num))
```

Enter a number: 1025
Reversed Number: 5201

PalindromicNumber

In [104]:

```
num = int(input("Enter a number: "))
reversed_num = 0
temp = num

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

print("Reversed Number: ",(reversed_num))

if (temp == reversed_num):
    print("The number you entered is a Palindrome")
else:
    print("Its not an Palindrome")
```

Enter a number: 1456789
Reversed Number: 9876541
Its not an Palindrome

In [64]:

```
# product of the digit :
#     digit = num%10
#     product = product*digit
#     num = num//10
```

SpecialNumber

In [98]:

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

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

print(product)
print(sum)
result = product + sum

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

CompilationOfProgramms

In [131]:

```
select = int(input("Enter a number:\n""1.Palindrome\n""2.Amstrong number\n""3.Special numbe
if select == 1:
    num = int(input("Enter a Number: "))
    reversed_num = 0
    temp = num

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

    print("Reversed Number: ",(reversed_num))

    if (temp == reversed_num):
        print("The number you entered is a Palindrome")

    else:
        print("Its not an Palindrome")

elif select == 2:

    num = int(input("Enter a Number: "))
    temp = num
    sum_val = 0
    while(num>0):
        digit = num%10
        sum_val = sum_val + digit**3
        num = num//10
    if (temp==sum_val):
        print("It is an Armstrong number")

    else:
        print("It is Not an Armstrong Number")
elif select == 3:
    num = int(input("Enter a Number: "))
    temp = num
    product = 1
    sum = 0

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

    print(product)
    print(sum)
    result = product + sum

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

elif select == 4:

    num = int(input("Enter a Number: "))
```

```
temp = num
sum = 0
while(num>0):
    digit = num%10
    sum += digit
    num = num//10
print("Sum of digits in",temp,"is",sum)

6
else:
    print("Please enter an Valid Input")
```

Enter a number:
1.Palindrome
2.Amstrong number
3.Special number
4.Sum of digits of a number
4
Enter a Number: 589
Sum of digits in 589 is 22

In []:

```
num = 65
```

In []: