**Class**

1. **Program to calculate area of rectangle**

class Rectangle():

def \_\_init\_\_(self, l, w):

self.length = l

self.width = w

def rectangle\_area(self):

return self.length\*self.width

newRectangle = Rectangle(12, 10)

print(newRectangle.rectangle\_area())

**Functions**

1. **Find the even numbers from a list and create a separate list**

def is\_even\_num(l):

enum = []

for n in l:

if n % 2 == 0:

enum.append(n)

return enum

print(is\_even\_num([1, 2, 3, 4, 5, 6, 7, 8, 9]))

1. **Write a Python program to check the validity of a password (input from users).**Validation :

* At least 1 letter between [a-z] and 1 letter between [A-Z].
* At least 1 number between [0-9].
* At least 1 character from [$#@].
* Minimum length 6 characters.
* Maximum length 16 characters.

import re

p= input("Input your password")

x = True

while x:

if (len(p)<6 or len(p)>12):

break

elif not re.search("[a-z]",p):

break

elif not re.search("[0-9]",p):

break

elif not re.search("[A-Z]",p):

break

elif not re.search("[$#@]",p):

break

elif re.search("\s",p):

break

else:

print("Valid Password")

x=False

break

if x:

print("Not a Valid Password")

1. **Multiply the list elements**

def multiply(numbers):

total = 1

for x in numbers:

total \*= x

return total

print(multiply((8, 2, 3, -1, 7)))