Lab Exercise 8:

Q1: Follow the steps:

- Create a class, Triangle. Its __init__() method should take self, angle1, angle2, and angle3 as arguments. Make sure to set these appropriately in the body of the __init__()method.
- Create a variable named number_of_sides and set it equal to 3.
- Create a method named check_angles. The sum of a triangle's three angles is It should return True if the sum of self.angle1, self.angle2, and self.angle3 is equal 180, and False otherwise.
- Create a variable named my_triangle and set it equal to a new instance of your Triangle class. Pass it three angles that sum to 180 (e.g. 90, 30, 60).
- Print out my_triangle.number_of_sides and print out my_triangle.check_angles().

Q2: Define a class called Songs, it will show the lyrics of a song. Its __init__() method should have two arguments:self and lyrics.lyricsis a list. Inside your class create a method called sing_me_a_song that prints each element of lyricson his own line. Define a varible:

happy_bday = Song(["May god bless you, ",
            "Have a sunshine on you,",
            "Happy Birthday to you !"])

Call the sing_me_song method on this variable.

Q 3: Define a class called Lunch.Its __init__() method should have two arguments:selfanf menu.Where menu is a string. Add a method called menu_price.It will involve a ifstatement:

- if "menu 1" print "Your choice:", menu, "Price 12.00", if "menu 2" print "Your choice:", menu, "Price 13.40", else print "Error in menu".

To check if it works define: Paul=Lunch("menu 1") and call Paul.menu_price().

Q4: Write a Python class which has two methods get_String and print_String. get_String accept a string from the user and print_String print the string in upper case.

Q5: Write a program to find the area and perimeter of a rectangle using classes and objects. Program output should be like this:

Output

```
Enter Length of a Rectangle:12
Enter Breadth of a Rectangle:3
1.Area
2.Perimeter
3.Exit
Enter your choice:1
Area of rectangle with length 12 and breadth 3 is 36
1.Area
2.Perimeter
3.Exit
Enter your choice:2
Perimeter of rectangle with length 12 and breadth 3 is 30
1.Area
2.Perimeter
3.Exit
Enter your choice:3
End of the Program
```