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().

```
class StringManipulator:
    def __init__(self):
        self.input_string = ""

    def get_String(self):
        self.input_string = input("Enter a string: ")

    def print_String(self):
        print("Uppercase String: " + self.input_string.upper())


string_manipulator = StringManipulator()


string_manipulator.get_String()

string_manipulator.print_String()
```

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.

```
class Songs:
    def __init__(self, lyrics):
        self.lyrics = lyrics

    def sing_me_a_song(self):
        for line in self.lyrics:
            print(line)
```

```
happy_bday_lyrics = [
    "May god bless you,",
    "Have a sunshine on you,",
    "Happy Birthday to you!"
]


happy_bday = Songs(happy_bday_lyrics)


happy_bday.sing_me_a_song()
```

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”.

```
class Lunch:
    def __init__(self, menu):
        self.menu = menu

    def menu_price(self):
        if self.menu == "menu 1":
            print("Your choice:", self.menu, "Price 12.00")
        elif self.menu == "menu 2":
            print("Your choice:", self.menu, "Price 13.40")
        else:
            print("Error in menu")


Paul = Lunch("menu 1")


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.

```
class StringManipulator:
    def __init__(self):
        self.input_string = ""

    def get_String(self):
        self.input_string = input("Enter a string: ")

    def print_String(self):
        print("Uppercase String: " + self.input_string.upper())


string_manipulator = StringManipulator()
```

```
string_manipulator.get_String()

string_manipulator.print_String()
```

```
 Q5: Write a program to find the area and perimeter of a rectangle using classes and objects.
# Program output should be like this:
print("1.Area")
print("2.perimeer")
print("3.exit")
choice=int(input("enter your choice"))
class Rectangle:
    def __init__(self, length, width):
        self.length = length
        self.width = width
    def choice(self):
        if choice==1:
            return self.length * self.width
        elif choice==2:
            return 2 * (self.length + self.width)
        elif choice==3:
            return exit
length = float(input("Enter the length of the rectangle: "))
width = float(input("Enter the width of the rectangle: "))
rectangle = Rectangle(length, width)

ans=rectangle.choice()
if choice==1:
    print("Area of reactangle: ",ans)
elif choice==2:
    print("Perimetar of reactangle: ",ans)
elif choice==3:
    print("exit")
```