

Que1.

Write a Python program to create a Vehicle class with max_speed and mileage instance attributes.

Write a python program to Create a child class Bus that will inherit all of the variables and methods of the Vehicle class

Que2

Write a Rectangle class in Python language, allowing you to build a rectangle with length and width attributes.

Create a Perimeter() method to calculate the perimeter of the rectangle and a Area() method to calculate the area of the rectangle.

Create a method display() that display the length, width, perimeter and area of an object created using an instantiation on rectangle class.

Create a Parallelepiped child class inheriting from the Rectangle class and with a height attribute and another Volume() method to calculate the volume of the Parallelepiped

Que 3

Person class and child Student class Create a class Person with attributes: name and age of type string.

Create a display() method that displays the name and age of an object created via the Person class. Create a child class Student which inherits from the Person class and which also has a section attribute.

Create a method displayStudent() that displays the name, age and section of an object created via the Student class.

Create a student object via an instantiation on the Student class and then test the displayStudent method

[Optional]

4:- Write a program that reads a string from keyboard and display:

- * The number of uppercase letters in the string
- * The number of lowercase letters in the string
- * The number of digits in the string
- * The number of whitespace characters in the string

5:- Write a program in python that accepts a string to setup a passwords. Your entered password must meet the following requirements:

- * The password must be at least eight characters long.
- * It must contain at least one uppercase letter.

- * It must contain at least one lowercase letter.

- * It must contain at least one numeric digit.

6:- Write a definition of a method `count_now(places)` to find and display those place names, in which there are more than 5 characters.

For example :

If the list places contains

```
["DELHI", "LONDON", "PARIS", "NEW YORK", "DUBAI"]
```

The following should get displayed :

LONDON

NEW YORK

7:- Write a program that accepts a list from user and print the alternate element of list