Ex.No: 3	PROGRAM TO DEMONSTRATE Interfaces & Packages IN JAVA
19/09/2020	

a) Write a program in JAVA using Interfaces concept to design vehicle engines. Assume that when the Hardware part is done, and it becomes necessary for some of the software functionalities to be implemented by a client who is using the engine. For this reason, define the engine functionalities in an interface.

the methods to be included in the interface Engine are:
changeGear(int);
speedUp(int);

the class can be named as Vehicle which implements the above interface and it consists of variables such as speed and gear of numeric type.

b) Write a JAVA program to demonstrate sharing of variables like a library using Interface concept. Assumptions are as follows:

a. Create a package called myInterface and create an interface SharedConstants such as NO, YES, MAYBE, LATER, SOON AND NEVER with constant values assigned.

b. Create a class called as Demonstration which implements SharedConstants interface from the package myInterface. Make use of switch statement to display the choices selected.

c) Write a JAVA program to illustrate run-time polymorphism with interface objects. Implement the GeoAnalyzer program using interface and package concepts.

Assumptions:

a. Create a package called myInterface and create an interface called GeoAnalyzer with pi as final and static, area and perimeter methods as float type.;

b. Create a class called as Circle which implements GeoAnalyzer;

c. Create another class called as Ellipse which implements GeoAnalyzer;

d. Create another class called as Rectangle which implements GeoAnalyzer;

e. Create a Demo class with display as the method and illustrate run-time polymorphism with interface objects in a dynamic way;

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