

JAVA Programming Assignment

1. Create an Interface Shape2D with the variable PI and a method findArea() that returns double value. The Circle and Cylinder class will implement the interface Shape2D and define the method findArea to find the area of Circle and Cylinder respectively. The Shape2D interface, Circle class and Cylinder Class should be in the package Area. The Main class which contains public static void main() should be in a package MainWork. Inside main method create an object of type Shape2D. At runtime based on the choice of user the findArea method of Circle or Cylinder will be called. Assume the other necessary details and write down the program for this problem definition.
2. Write a Java program to create a new array list for name of colors (String) and provide the methods for following.
 - a) to add some colors to the ArrayList
 - b) to iterate through all elements in an ArrayList.
 - c) to insert an element into the ArrayList at the first position
 - d) to retrieve an element (at a specified index) from a given ArrayList.
 - e) to search an element in an ArrayList.
3. Write a Java program to create a new LinkedList for name of Vehicles (String) and provide the methods for following.
 - a) To append the vehicle name to the end of Linkedlist.
 - b) to iterate through all elements in a linked list.
 - c) to insert the specified element at the specified position in the linked list.
 - d) to remove a specified element from a linked list.
4. Write a Java program to create a new Vector for storing the name of Mammals. Add the name of mammals in this Vector. Iterate through all elements in the vector and print them.
5. Write a Java Program that create two Date objects with two different date values. Print the difference between these two dates in terms of which comes before, which comes after and the number of milliseconds difference between these two dates. (Hint: Use the getTime() method of Date class that provide the number of milliseconds between the current date and January 1, 1970).