Java Lab 332

Intake 49

1. Create a class called **Reverse**. This class must include one integer variable, one getInput () function, and one doReverse() function. Your task is to take an integer input from the keyboard using the getInput() function and reverse it through doReverse() function. Create necessary constructors.

2. Create a class named **Complex** that must have two integer data members (real, and imag). Create two constructors, one Read function to take keyboard input, one Add (return object), function, and one Display function to print results. The Add function must take one object as an argument. Watch the input and output section for better understanding.

Input

Enter real and imaginary numbers respectively: 16 7
Enter real and imaginary numbers respectively: 5 8

Output:

Sum = 21 + 15i

3. Suppose, you work in a **Box** manufacturing company. Your task is to ensure the size of the boxes before being delivered to the clients. Boxes must be 10 meters in length, 12 meters in width, and 8 meters long in height. Now, you are assigned to test whether all the properties are matched with the required/allotted values. If not, then increment or decrement the values where necessary. For example, if the length is 9 meters, then increment it by 1 or if the height is 10 meters, decrement it by 2. You must perform these operations with the help of Box objects.

4. Suppose you want to create a cloud storage service (e.g. google drive) named '**Drive49**', which has a Total_capacity of 10GB (in which there are two portions Used and Free). Each time a new user creates an account to your service a new storage is constructed for the user. For a new user Used portion should be assigned to zero and Free portion should be assigned to 10. A user can Upload a file of a certain Size to his 'Drive49' storage. Uploading a file will increase the Used portion by the Size of the file and decrease the Free portion by the same amount of space. A user can extend the Total_capacity of his 'Drive49' by upgrading (Upgrade) his user plan. He can also View the status of his storage (Total_capacity, Used, Free). Now show the process of creating your 'Drive49' service and a User of the service. Also create a user and upgrade the used plan and finally show that users status.

5. Create a class named **Time** that must have three integer data members (hours, minutes, and seconds). Create two constructors, one member function named add_time (return object), and one display function to print the time in 11:59:59 format. The add_time function must take two objects as arguments. The main function calls the add_time function to add two-time objects and store the result in a third object. Use the display function to print the result on the console.

Input: 2 55 40, 5 20 30

Output: 8:16:10

6. You and your friends are going to order food from **FoodPanda**. You have to choose your food items. You are asked to write a function called Orderfood () which takes the name of foods and number of items as the arguments. The name and number of food items may vary from two to four and from person to person. Complete the task using function overloading concept.

7. Create a class named **Football** having data member radius and weight as integer type. A member function display() is used to show the values of radius and weight. A parameterized constructor is used to initialize the values of radius and weight. If no value is given while creating an object then, initialize the value of radius to 1 and weight to 2. Now create two objects ob1(10,20) and ob2 and show the values of radius and weight of the objects. Also mention the output.

8. Create a class called **Palindrome**. This class must include one integer variable, one getInput () function, and one isPallindrome() function. Your task is to take an integer input from the keyboard and check whether it is palindrome or not. Create necessary constructors.