Lab3: C++, JAVA, Python

Program 1: Create Product having following attributes: Product ID, Name, Category ID and UnitPrice. Create ElectricalProduct having the following additional attributes: VoltageRange and Wattage. Add a behavior to change the Wattage and price of the electrical product. Display the updated ElectricalProduct details.

Program 2:

Create a Bank class with methods deposit & withdraw. The deposit method would accept attributes amount & balance & returns the new balance which is the sum of amount & balance. Similarly, the withdraw method would accept the attributes amount & balance & returns the new balance 'balance – amount' if balance > = amount or return 0 otherwise.

Program 3:

Declare an interface called Function that has a method named evaluate that takes an int parameter and returns an int value.Create a class half that implements Function. Make the implementation of the method evaluate () return the value obtained by dividing the int argument by 2. In a client, create a method that takes an arbitrary array of int values as parameter and   Returns an array that has the same length, but the value of an element in the new array is half that of the value in the corresponding element in the array passed as parameter. Let the implementation of this method create an instance of Half and use this instance to calculate the values in the array to be returned.

Program 4:

We need to write the function to check the password entered is correct or not based on the following conditions.
a) It must have atleast one lower case character and one digit.
b) It must not have any Upper case characters and any special characters
c) length should be b/w 5-12.
d) It should not have any same immediate patterns like
abcanan1 : not acceptable coz of an an pattern
abc11se: not acceptable, coz of pattern 11
123sd123 : acceptable, as not immediate pattern
adfasdsdf : not acceptable, as no digits
Aasdfasd12: not acceptable, as have uppercase character