DIRE DAWA UNIVERSITY INSTITUTE OF TECHNOLOGY

School of Computing

Department of Computer Science

Course Name: Object Oriented Programming

Group Assignment

Number of Students per Group: ***Five Students***

Submission Date: 04/05/2016 E.C

Questions:

1. **Currency Converter**

   This system used to convert a currency from one to another. Create a simple system that converting currency and getting the output value, for example, here displays converting the currency of the US dollar to EBIR and Others. Different countries using different currencies. Be aware of the current exchange prices in the market and then can convert from one currency to another. You also get a regular update when there is a change in the value of the country's currency and the conversion rate.

2. **Simple Banking Application**

   Simple Banking Application is a simple Java project for beginners to learn about Scanner class to take inputs, and the basics of strings, loops, methods, and conditional statements. In this project applies the basic bank activities and operations like deposit, withdrawal, checking balance, exit, statement history, make transactions, money transfer and balance inquiry can be done in seconds using the system. .

Notes:

− ***Copy pasting*** from any source is not allowed (will void your assignment).

− Late submissions are not permitted under any circumstances.

− Students with similar answers will receive a score of zero [rejected].

DIRE DAWA UNIVERSITY INSTITUTE OF TECHNOLOGY

School of Computing

Department of Computer Science

Course Name: **Object Oriented Programming**

Individual Assignment

Submission Date: 03/05/2016 E.C

Instruction: Write a Java program for the following Questions

1. Write a Java program to create a class with methods to search for flights and hotels, and to book and cancel reservations

2. Write a Java program to create a method that takes an integer as a parameter and throws an exception if the number is odd and if the input is not a number.

3. Write a Java program to create a class called Rectangle with private instance variables length and width. Provide public getter and setter methods to access and modify these variables.

4. Write a Java program to create a class known as "BankAccount" with methods called deposit() and withdraw(). Create a subclass called SavingsAccount that overrides the withdraw() method to prevent withdrawals if the account balance falls below one hundred.

5. Write a Java program to create a vehicle class hierarchy. The base class should be Vehicle, with subclasses Truck, Car and Motorcycle. Each subclass should have properties such as make, model, year, and fuel type. Implement methods for calculating fuel efficiency, distance traveled, and maximum speed.

6. Write a Java program to create an abstract class Person with abstract methods eat() and exercise(). Create subclasses Athlete and LazyPerson that extend the Person class and implement the respective methods to describe how each person eats and exercises.

7. Write a Java program that creates a class hierarchy for employees of a company. The base class should be Employee, with subclasses Manager, Developer, and Programmer. Each subclass should have properties such as name, address, salary, and job title. Implement methods for calculating bonuses, generating performance reports, and managing projects.

8. Write a Java program to create a class called Student with private instance variables student_id, student_name, and grades. Provide public getter and setter methods to access and modify the student_id and student_name variables. However, provide a method called addGrade() that allows adding a grade to the grades variable while performing additional validation.

9. Write a Java program to create a class called "Movie" with attributes for title, director, actors, and reviews, and methods for adding and retrieving reviews.

10. Write a Java program to create a class called "Restaurant" with attributes for menu items, prices, and ratings, and methods to add and remove items, and to calculate average rating.

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– Students with similar answers will receive a score of zero [rejected].