# CENG217 – Lab03 Report

## Task 1

import java.util.Date;

/\*\*

\* servers as a blueprint for managing banking account, etc

\*

\* @Clarence

\* @1.2

\*/

public class Account

{

private int id = 0;

private double balance = 0.0;

private double annualInterestRate = 0.0;

private Date dateCreated;

public Account() {

dateCreated = new Date();

}

public Account(int id, double balance) {

this();

this.id = id;

this.balance = balance;

}

public int getId() {

return this.id;

}

public void setId(int id) {

this.id = id;

}

public double getBalance() {

return this.balance;

}

public void setBalance(double balance) {

this.balance = balance;

}

public double getAnnualInterestRate() {

return annualInterestRate;

}

public void setAnnualInterestRate(double annualInterestRate) {

this.annualInterestRate = annualInterestRate;

}

//dataCreated accessor

public Date getDateCreated() {

return dateCreated;

}

public double getMonthlyInterestRate() {

return annualInterestRate / 12;

}

public void withdraw(double amount) {

if(amount > balance) {

System.out.println("Insufficient balance");

return;

}

balance -= amount;

}

public void deposit(double amount) {

balance += amount;

}

}

/\*\*

\* test program that implements withdraw and deposit method into account id of 1122

\*

\* @Clarence n01573843

\* @1.1

\*/

public class TestAccount extends Account

{

public static void main(String[] args) {

Account acc = new Account(1122, 20000);

acc.setAnnualInterestRate(4.5); // set annual intereate rate

acc.withdraw(2500); //using the withdraw method to withdraw $2500

acc.deposit(3000); //using the deposit method to deposit $3000

System.out.println("Balance: $" + acc.getBalance()); //printing the balance

System.out.println("Monthly Interest: $" + acc.getMonthlyInterestRate() \* acc.getBalance() / 100); //printing monthly interest

System.out.println("Date Created: " + acc.getDateCreated()); //printing the date when the account was created

}

}