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\* Class:TimeDepositAccount Ex13.2 Pg.?.? Author: Yin Linhai

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\* A timed deposit account that inherits savings account

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\* Course:Computer Science 201Teacher:Mr Blakey

\* School:Sir Winston Churchill High School, Calgary, Alberta, Canada

\* Language: Java SE 7.0Target Operating System: Java Virtual Machine

\* System:Intel Celeron 3GHz running under Windows 7 IDE: Eclipse 4.2

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**Account Class**

**package** eight;

**public** **class** Account {

//Constructor method

**public** Account(**double** b) {

balance = b;

}

//Methods

//Deposit method

**public** **void** deposit(**double** d) {

balance += d;

}

//Withdraw method

**public** **void** withdraw (**double** w) {

balance -= w;

}

//Print balance method

**public** **void** printBalance() {

System.*out*.println(String.*format*("%5.2f", balance));

}

//Get Balance method

**public** **double** getBalance() {

**return** balance;

}

**public** **double** balance;

}

**Savings account class**

**package** eight;

**public** **class** SavingsAccount **extends** Account {

//constructor

**public** SavingsAccount(**double** balance, **double** interestRate) {

**super**(balance);

rate = interestRate;

}

//add

**public** **void** addInterest() {

**super**.balance += balance\*(rate/100);

}

**double** rate;

}

**TimeDeposit account class**

**package** eight;

**public** **class** TimeDepositAccount **extends** SavingsAccount {

//constructor

**public** TimeDepositAccount(**int** mM, **double** b, **double** r, **double** wP) {

**super**(b, r);

months = mM;

penalty = wP;

}

//add interest

**public** **void** addInterest() {

//call saving account method

**super**.addInterest();

//reduce # of months

months -= 1;

}

//withdrawing money

**public** **void** withdraw(**double** w) {

//call withdraw from Account

**super**.withdraw(w);

//check if the penalty should be applied

**if** (months>0) {

balance -= penalty;

}

}

//get months remaining

**public** **int** getMonths() {

**return** months;

}

**private** **int** months;

**private** **double** penalty;

}