**Banking Project Part 3 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Take your existing banking project and create two new classes: SavingsAccount and DebitAccount. These classes will be extensions of the BankAccount class and will inherit the methods and constructor. Also create a new main class.

**DebitAccount**: should have a third constraint in the constructor that sets a service charge that is applied for each withdraw that is performed. Also you need methods: withdraw(), overdraft() and toString().

Note: overdraft will apply a $50 charge when the account is overdrawn.

**SavingsAccount**: should have a third constraint in the constructor that sets an interest rate. (The user should enter the interest rate as a monthly percentage) You will also need a method addInterest() which will apply the monthly interest rate and a toString() method.

The main class should do the following:

1. Create one BankAccount, one DebitAccount and one SavingsAccount.

Use scanners to initialize the accounts. Then withdraw some amount and deposit some amount in each account. (Again using scanners) Then compare the final balances. (Display them)

2. Create a new SavingsAccount. Simulate how many months it will take to earn a given amount of interest (read as input in the main) and output the results. Balance, interest rate and target interest amount should be read by Scanners. (Ex: An account with initial balance $5000, interest rate 0.05% and earning $500 of interest would take 191 months.)