

Project 3 Bank Application

Scenario: You are a back-end developer and need to create an application to handle new customer bank account requests.

Your application should do the following:

- Read a .csv file of names, social security numbers, account type, and initial deposit
- Use a proper data structure to hold all these accounts
- Both savings and checking accounts share the following properties:
 - deposit ()
 - withdraw ()
 - transfer ()
 - showinfo ()
- 11 - Digit Account Number (generated with the following process: 1 or 2 depending on Savings or Checking, last two digits of SSN, unique 5 - digit number, and random 3 - digit number)
- Savings Account holders are given a Safety Deposit Box, identified by a 3 - digit number and accessed with a 4 - digit code
- Checking Account holders are assigned a Debit Card with a 12 - digit number and 4 - digit PIN
- Both accounts will use an interface that determines the base interest rate. Savings accounts will use .25 points less than the base rate Checking accounts will use 15 % of the base rate
- The ShowInfo method should reveal relevant account information as well as information specific to the Checking account or savings account.

Learning objectives:

- Learn to develop a robust application architecture Use when to use abstract classes and abstract methods
- Use an interface API to receive information from a developer's application
- Explore constructors deeper and use the super () keyword
- Explore access modifiers and when to use public, private, or protected
- Read data from a file and store it in an appropriate data structure
- Generate random numbers and work with String API