Project 3

Bank Application

Scenario: You are a backend 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()

- Savings Account holders are given 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 in an appropriate data structure.
- Generate random numbers and work with String API.