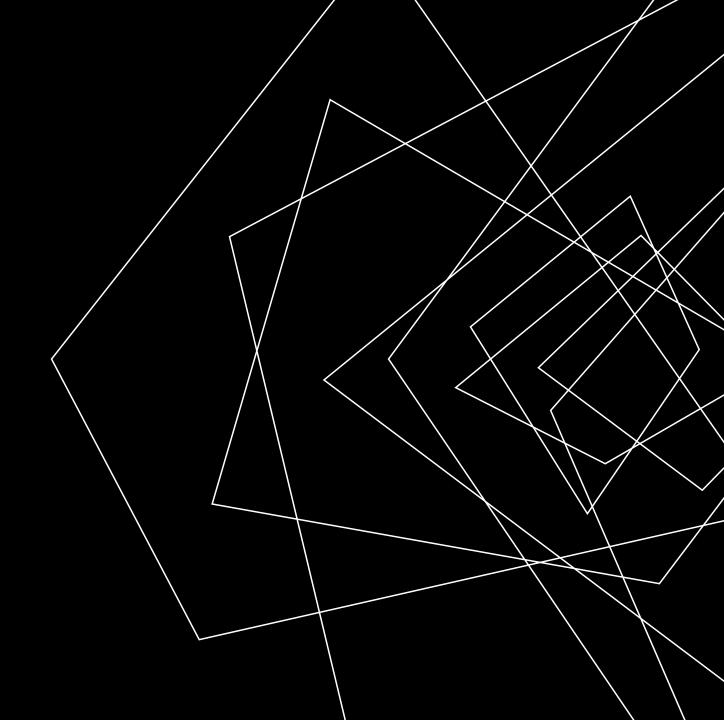


# GOALS

as a back-end developer

we need to create an application

to handle new customer bank account requests





+ getBaseRate() double



#### **Abstract Account**

- Name String
- SSN String
- Balance double
- accountNumber String
- zipCode int
- + Abstract setRate()
- + setRate()
- + deposit(double amount)
- + withdraw(double amount)
- + transfer(Object other, double amount)
- + printBalance(double amount)
- + compound() double
- + showInfo()
- + toString()

#### readCSV

NewBankAccounts.csv

BankAccountApp

#### Checking

- debitCardNumber int
- debitCardPin int
- + getdebitCardNumber() int
- + getdebitCardPin() int
- + setRate()
- + getRate()
- + showInfo()
- + toString()

#### **Savings**

- safetyDepositBoxId int
- safetyDepositBoxKey int
- + getsafetyDepositBoxId() int
- + getsafetyDepositBoxKey() int
- + setRate()
- + showInfo()
- + getRate()
- + toString()

# **BIG IDEA**

### Abstraction

#### InterfaceOfRate

+ getBaseRate() double

### Abstract Account

- Name String
- SSN String
- Balance double
- accountNumber String
- zipCode int
- + Abstract setRate()
- + setRate()
- + deposit(double amount)
- + withdraw(double amount)
- + transfer(Object other, double amount)
- + printBalance(double amount)
- + compound() double
- + showInfo()
- + toString()

#### readCSV

NewBankAccounts.csv

BankAccountApp

#### Checking

- debitCardNumber int
- debitCardPin int
- + getdebitCardNumber() int
- + getdebitCardPin() int
- + setRate()
- + getRate()
- + showInfo()
- + toString()

#### Savings

- safetyDepositBoxId int
- safetyDepositBoxKey int
- + getsafetyDepositBoxId() int
- + getsafetyDepositBoxKey() int
- + setRate()
- + showInfo()
- + getRate()
- + toString()

# **BIG IDEA**

#### InterfaceOfRate

+ getBaseRate() double



#### **Abstract Account**

- Name String
- SSN String
- Balance double
- accountNumber String
- zipCode int
- + Abstract setRate()
- + setRate()
- + deposit(double amount)
- + withdraw(double amount)
- + transfer(Object other, double amount)
- + printBalance(double amount)
- + compound() double
- + showInfo()
- + toString()

#### readCSV

NewBankAccounts.csv

BankAccountApp

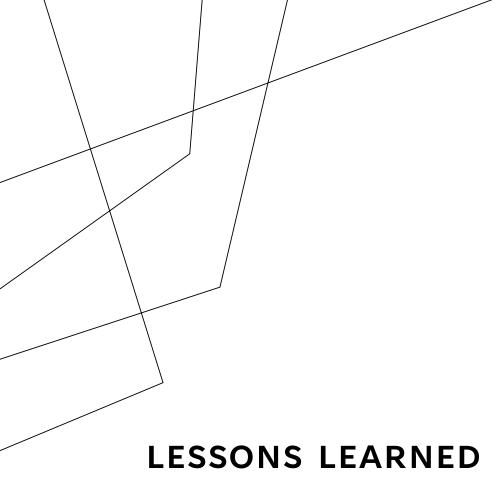
### Inheritance

#### Checking

- debitCardNumber int
- debitCardPin int
- + getdebitCardNumber() int
- + getdebitCardPin() int
- + setRate()
- + getRate()
- + showInfo()
- + toString()

#### Savings

- safetyDepositBoxId int
- safetyDepositBoxKey int
- + getsafetyDepositBoxId() int
- + getsafetyDepositBoxKey() int
- + setRate()
- + showInfo()
- + getRate()
- + toString()



### Generating certain random numbers in a range

```
this.debitCardNumber = (int) (Math.random() * Math.pow(10, 12));
this.debitCardPin = (int) (Math.random() * Math.pow(10, 4));
```

### **Correct Access Specifiers**

```
protected String accountNumber;
7 usages
protected double rate;
```

### Writing a CSV Reader Utility

BufferedReader File reader

### Array List

Collections are data structure allow you to add elements dynamically

Creating a list of objects

# **FUTURE EXTENSIONS**

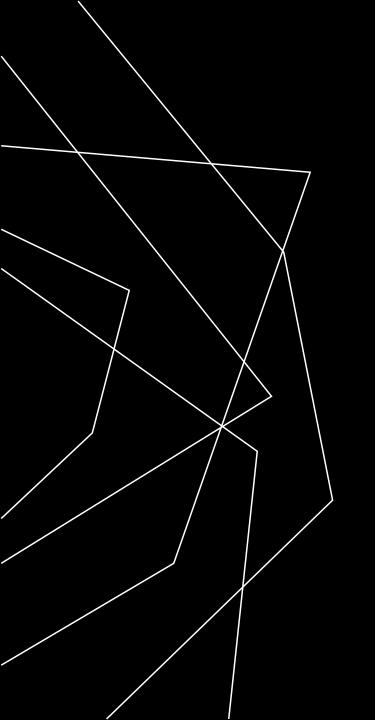
### ISSUE CREDIT CARD

Based on their transactions

### **INVESTMENTS**

Given specific program

Ask the user which program would match their current financial situation



# THANK YOU