**Technical Design Document**

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**Program Description:**

This program gathers sentences entered by the user and then puts each sentence in it’s own line as well as count the sentences.

**Functions used in the Program (list in order as they are called):**

1. **Function Name:** \_\_init\_\_

**Description:** This method initializes the BankAcct class.

**Parameters:** self, name, account\_number, amount, interest\_rate

**Variables:** self.name- passed to self parameter

Self.account\_number – passed to account number parameter

Self.amount – passed to the amount parameter

Self.interest\_rate – passed the the interest\_rate parameter

2. **Function Name:** deposit()

**Description:** This function takes the original amount and adds a deposit value to the amount value.

**Parameters:** self, amount

**Variables:** self.amount – variable that holds the current amount value

3. **Function Name:** withdraw()

**Description:** This function takes a given number and compares it with the current value in amount. If the value of the amount is higher than the value of the deposit, the value is subtracted. If the value is lower, the program prints a message in error.

**Parameters:** self, amount

**Variables:** self.amount – the current value of amount

1. **Function Name:** get\_balance()

**Description:** This function displays for the user the value stored in amount.

**Parameters:** self,

**Variables:** self.amount- returned value for user to see

1. **Function Name:** adjust\_interest\_rate()

**Description:** This function changes the value held in the interest rate variable.

**Parameters:** self, new\_rate

**Variables:** self.interest\_rate- the value of the original interest rate stored here.

1. **Function Name:** calculate\_interest()

**Description:** This function calculates the total with interest using a formula.

**Parameters:** self, days

**Variables:** interest- the value solution from the equation that is stored as current interest value.

1. **Function Name:** \_\_str\_\_

**Description:** This method returns a display message formatted with the user data stored in BankAcct class objects.

**Parameters:** self

**Variables:** none

1. **Function Name:** test\_bank\_account()

**Description:** This function adds values into the BankAcct class and prints each value accordingly.

**Parameters:** none

**Variables:** account- variable to hold the data from the BankAcct class

Account.deposit- value to be added to the amount variable.

Account.withdraw- value to be subtracted from the amount variable

Account.adjust\_interest\_rate- value to replace the adjust\_interest\_rate variable.

**Logical Steps:**

1. The program takes the data given and stores it in the BankAcct Class.
2. The program then prints the information for the user to see.
3. The program then accesses the account.deposit and adds it to the variable.
4. The program then prints the updates account variable.
5. The program then uses the account.withdraw variable to subtract.
6. The program then prints the updated account variable.
7. The program then uses the adjust\_interest\_rate variable and prints the updated account variable.
8. The program then prints the new interest rate for the user to see.

**Returns:** Returns a display of the sentences in new lines, as well as a count for the amount of sentences.

**Link to your repository:** www.github.com/shahsteve/cop2373