Bank Account Interest and Fee “What If” Analyzer

Image a simple program that helps bank administrators determine new interest and fee policies for bank accounts. The program would accept the following as input:

Filename

The name of an XML file contains one or more bank account objects

Number of periods

The number of periods (e.g. month) to for which to run the analysis

Interest Calculation Type

One of the following code, which represent different types of interest calculations:

S Simple Interest (paid only on original principle balance)

C Compounded Interest (paid on current balance for period)

G Compounded Interest with a graduated rate based on balance

Minimum Balance for Interest

Interest Rate or Table of Balance Ranges and Interest Rates

Fee Calculation Type

One of the following code, which represent different types of interest calculations:

F Flat Fee

G Graduated rate based on balance

Fees or Table of Balance Ranges and Fees

Current date

After gathering the necessary input information, it would open the input file, load all of the bank account objects into a set or list, and loop through each bank account object to compute the interest and fees for that accounts (based on start date and current date).

The program should keep track of the beginning and end total balance, total interest paid out, and total fees collected.