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| **Pre-AP® Computer Science** | **Lab 06A**  **Mini-Lab Assignment** |
| **The First Bank Program** | **80, 90 and 100 Point Versions** |
| **Assignment Purpose:**  The purpose of this program is to demonstrate the creation of objects, the use of object methods and the display of formatted output. | |

Write a program that will create 3 objects of the provided **Bank** class and 1 object of Java’s **DecimalFormat** class. The 3 **Bank** objects will call several object methods of the **Bank** class. The **format** method of the **DecimalFormat** class will be used to display all balances with a dollar sign, commas, and rounded to the nearest penny.

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| **Lab 06A Student Version** | **Do not copy this file, which is provided.** |
| **// Lab06Ast.java**  **// The First Bank Program**  **// Object Methods and Output Formatting**  **// This is the student, starting version of Lab 06A.**  **import java.text.DecimalFormat;**  **public class Lab06Ast**  **{**  **public static void main(String args[])**  **{**  **// Create DecimalFormat and Bank Objects**  **DecimalFormat money = new DecimalFormat("$00,000.00");**  **Bank tom = new Bank();**  **Bank suzy = new Bank(1600,32000);**  **Bank bill = new Bank(8000,Expo.random(20000,90000));**  **// Display Initial Balances**    **// Deposits and Withdrawals**      **// Display Final Balances**  **}**  **}** | |

**80 Point Version**

The 80-point version requires the following:

1. Display the initial checking and savings balances for all 3 people (Tom, Suzy and Bill).
2. Process these 3 banking transactions:
   * Tom will make a $500 deposit in his checking account.
   * Tom will make a $7000 deposit in his savings account.
   * Bill will withdraw the entire balance ($8000) from his checking account.
3. Display the final checking and savings balances for all 3 people

When displaying balances, the **money** format should be used so they display as shown in the sample outputs.

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| ÏÏ«Ï ----jGRASP exec: java Lab06Av80 ÏÏ§Ï ÏÏ§ÏINITIAL BALANCES: ÏÏ§ÏTom's checking balance: $00,000.00 ÏÏ§ÏTom's savings balance: $00,000.00 ÏÏ§ÏSuzy's checking balance: $01,600.00 ÏÏ§ÏSuzy's savings balance: $32,000.00 ÏÏ§ÏBill's checking balance: $08,000.00 ÏÏ§ÏBill's savings balance: $37,273.00 ÏÏ§Ï ÏÏ§ÏFINAL BALANCES: ÏÏ§ÏTom's checking balance: $00,500.00 ÏÏ§ÏTom's savings balance: $07,000.00 ÏÏ§ÏSuzy's checking balance: $01,600.00 ÏÏ§ÏSuzy's savings balance: $32,000.00 ÏÏ§ÏBill's checking balance: $00,000.00 ÏÏ§ÏBill's savings balance: $37,273.00 ÏÏ§Ï ÏÏ©Ï ----jGRASP: operation complete. |

NOTE: Chances are your will have a different amount for Bill’s savings balance.

This is because Bill’s savings balance was intentionally set to a random number.

**90 Point Version**

The 90-point version has everything from the 80-point version adds special transaction for Suzy. Suzy wants to transfer **20000** from savings to checking. The **Bank** class does not have a *transfer* method, but you can accomplish the same thing with a combination of 2 other methods.

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| ÏÏ«Ï ----jGRASP exec: java Lab06Av90 ÏÏ§Ï ÏÏ§ÏINITIAL BALANCES: ÏÏ§ÏTom's checking balance: $00,000.00 ÏÏ§ÏTom's savings balance: $00,000.00 ÏÏ§ÏSuzy's checking balance: $01,600.00 ÏÏ§ÏSuzy's savings balance: $32,000.00 ÏÏ§ÏBill's checking balance: $08,000.00 ÏÏ§ÏBill's savings balance: $83,273.00 ÏÏ§Ï ÏÏ§ÏFINAL BALANCES: ÏÏ§ÏTom's checking balance: $00,500.00 ÏÏ§ÏTom's savings balance: $07,000.00 ÏÏ§ÏSuzy's checking balance: $21,600.00 ÏÏ§ÏSuzy's savings balance: $12,000.00 ÏÏ§ÏBill's checking balance: $00,000.00 ÏÏ§ÏBill's savings balance: $83,273.00 ÏÏ§Ï ÏÏ©Ï ----jGRASP: operation complete. |

**100 Point Version**

The 100-point version has everything from the 90-point version adds one more withdrawal for Bill. Bill wants to withdraw his entire savings balance. Keep in mind that you do not know what his savings balance is since it was set to a random number.

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| ÏÏ«Ï ----jGRASP exec: java Lab06Av100 ÏÏ§Ï ÏÏ§ÏINITIAL BALANCES: ÏÏ§ÏTom's checking balance: $00,000.00 ÏÏ§ÏTom's savings balance: $00,000.00 ÏÏ§ÏSuzy's checking balance: $01,600.00 ÏÏ§ÏSuzy's savings balance: $32,000.00 ÏÏ§ÏBill's checking balance: $08,000.00 ÏÏ§ÏBill's savings balance: $57,420.00 ÏÏ§Ï ÏÏ§ÏFINAL BALANCES: ÏÏ§ÏTom's checking balance: $00,500.00 ÏÏ§ÏTom's savings balance: $07,000.00 ÏÏ§ÏSuzy's checking balance: $21,600.00 ÏÏ§ÏSuzy's savings balance: $12,000.00 ÏÏ§ÏBill's checking balance: $00,000.00 ÏÏ§ÏBill's savings balance: $00,000.00 ÏÏ§Ï ÏÏ©Ï ----jGRASP: operation complete. |