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Recruitment Process

Please write the following Java program and deliver by **Friday 31th of March.**

Bank Reporting

The program will run from a Main Class that will only be used for that purpose, through the Java main method. This class should include an example of use of all the classes.

The following classes need to be implemented. Feel free to improvise.

- Main Class
- Bank
    - A Bank should have a Bank Name.
    - A Bank could have one or more Bank Branches. (For example: Test Bank Kifissia Branch, Test Bank Marousi Branch, Test Bank Cholargos Branch etc.)
    - Each branch should have a name.
    - A Bank should be able to add or remove a customer and print all customers.
- Customer
    - A customer should have a first name, last name, email and his/her/their accounts. The e-mail value should be validated for human error (it should be a string with a valid email).
    - A customer should be able to add an account, remove an account, print all his/her/their account information.
- Account
    - An Account should have an Account Number and an Account Balance.
    - An Account can be either a Savings Account or a Checking Account.
    - In case of a Savings Account:
        - A Savings account should have a creation date.
        - A Savings account should print all the account information.
        - A Savings account should calculate the interest, according to the days that have passed from the time that the customer created the account.
            - If less than 2 months have passed, it should add 5% interest for each month in the account balance.
            - If less than 4 months have passed, it should add 10% interest for each month in the account balance.
            - Else it should add 12% interest for each month in the account balance.
    - In case of a Checking Account:
        - A Checking account should have a creation date.
        - A Checking account should print all the account information.
        - A Checking Account should be able to deposit and withdraw money for the account balance given.
        - In case of withdrawal, if the amount to be withdrawn is larger than the account balance, the transaction should not execute.

Example:

A customer named John Doe registers on Test Bank Kifissia branch. When a John is registered, he will open 3 accounts: 1 Savings Account and 2 Checking Accounts.

He will deposit different amounts to all three accounts.

He will deposit 200 euro to the Savings Account, 145 euro to the first Checking Account and 160 euro to the second Checking Account.

He will print all his account information.

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He will deposit another 20 euro to the first Checking Account.

He will try to withdraw 180 euro from the first Checking Account. A message should display that the account balance is not enough to proceed.

He will try to withdraw 150 euro from the first Checking Account. Operation will complete and the balance of the first Checking Account should by updated.

After 4 months, he wants to print all his account's information. The Savings Account balance should be updated and shown according to the interest added.

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