

Test 2

Duration: 1.5 hours

Total Marks: 50

Pass Marks: 30

Question

1. Build a Java Program, to represent **general ATM Transaction**, following are the workflow: *[30 marks]*

- Initialize the main balance to 100,000.
- User inputs the pin number.
- If the pin number is 2021, proceed further else count the incorrect attempts
- If the incorrect attempts are 3, user has to wait for 5 seconds to input the pin number again. *[You can use Thread.sleep(milliseconds) to wait]*
- When the user inputs the correct pin, the user can choose input from the options displayed on the screen. The available options on the screen include operations such as withdraw, deposit, check balance, exit, etc.
- Deposit option should ask user to input the amount to deposit and then add it to the main balance. If user deposits the amount greater than 500,000, ask user to input the citizenship number and if the citizenship number length is 10, then deposit otherwise print the appropriate message.
- Withdraw option should ask user to input the amount to withdraw and then deduct it from the main balance. Check balance availability before withdraw.
- Check balance option should display the available balance.
- Exit option should exit the program.
- Handle all the exceptions.
- User can choose any option and can perform actions serially without re-running the application. E.g. If user completes the deposit action, he/she can again select the action like withdraw, or deposit again, or exit, etc.

2. **PrimeBank** wants to use the above general system with some changes as below:

[10 marks]

- Allows user to input pin for 5 incorrect attempts
- Makes user wait for 10 seconds after incorrect attempt limit
- Deposit does not require to input citizenship number even if the amount is greater than 500,000.

3. **MegaBank** wants to use the above general system with some changes as below:

[10 marks]

- Disable check balance option
- Does not want to make user wait after incorrect attempt limit
- Require citizenship number if the amount is greater than 200,000.