**Bank Account System with GUI (JOptionPane)**

**Problem Statement:**

You will design a **Bank Account Management System** in Java that allows users to create and manage different types of accounts. The system should feature a **Graphical User Interface (GUI)** using JOptionPane to interact with the user.

**Class Requirements:**

**1. Base Class: BankAccount**

This class should contain:

* Personal profile fields:
  + accountNumber (String)
  + ownerName (String)
  + email (String)
  + phoneNumber (String)
* Financial fields:
  + balance (double)
* **Methods:**
  + Constructor to initialize values
  + deposit(double amount): Adds money to balance
  + withdraw(double amount): Deducts from balance (with validation)
  + displayAccountInfo(): Displays account details

**2. Subclasses (Derived Classes):**

Each subclass should extend BankAccount and introduce specific fields.

**A. Savings Account (SavingsAccount)**

* Field: interestRate (double)

**B. Checking Account (CheckingAccount)**

* Field: overdraftLimit (double)

**C. Mutual Fund Account (MutualFundAccount)**

* Fields:
  + investmentBalance (double)
  + riskLevel (String) → Values: "Low", "Medium", "High"

**D. Crypto Account (CryptoAccount)**

* Fields:
  + cryptoBalance (double)
  + cryptoType (String) → Examples: "Bitcoin", "Ethereum"

**Functional Requirements:**

* **Step 1:** The user selects an account type (JOptionPane menu).
* **Step 2:** The user creates an account by entering details.
* **Step 3:** The system allows:
  + Deposits
  + Withdrawals (with proper validation)
  + Viewing account information
* **Step 4:** Proper error handling (e.g., negative deposits or withdrawals).
* **Step 5:** Use **polymorphism** to manage different account types.