Renu codes:

```
import java.io.*;
import java.util.*;

class Account {
    private int accNo;
    private String name;
    private double balance;
    private static final double MIN_BAL = 500;

    public Account(int accNo, String name, double balance) {
        this.accNo = accNo;
        this.name = name;
        this.balance = balance;
    }

    public int getAccNo() {
        return accNo;
    }

    public void deposit(double amt) {
        balance += amt;
        System.out.println("Deposit successful. New balance: " + balance);
    }

    public void withdraw(double amt) {
        if (balance - amt >= MIN_BAL) {
            balance -= amt;
            System.out.println("Withdraw successful. New balance: " + balance);
        } else {
            System.out.println("Minimum balance must be maintained (500).");
```

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        }
    }

    public String toFileString() {
        return accNo + "," + name + "," + balance;
    }

    public static Account fromFileString(String line) {
        String[] p = line.split(",");
        return new Account(
            Integer.parseInt(p[0]),
            p[1],
            Double.parseDouble(p[2])
        );
    }

    public void display() {
        System.out.println(accNo + " | " + name + " | " + balance);
    }
}

public class MiniBankV1 {
    static List<Account> list = new ArrayList<>();
    static final String FILE = "accounts_v1.txt";

    static void load() throws Exception {
        list.clear();
        File f = new File(FILE);
        if (!f.exists()) return;

        BufferedReader br = new BufferedReader(new FileReader(f));
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    String line;
    while ((line = br.readLine()) != null) {
        list.add(Account.fromFileString(line));
    }
    br.close();
}

static void save() throws Exception {
    PrintWriter pw = new PrintWriter(new FileWriter(FILE));
    for (Account a : list) {
        pw.println(a.toFileString());
    }
    pw.close();
}

static Account find(int no) {
    for (Account a : list)
        if (a.getAccNo() == no) return a;
    return null;
}

public static void main(String[] args) throws Exception {
    Scanner sc = new Scanner(System.in);
    load();

    while (true) {
        System.out.println("\n1 Create  2 Deposit  3 Withdraw  4 Search  5 Show All  6 Exit");
        int ch = sc.nextInt();

        if (ch == 1) {
            System.out.print("Acc No: ");
```

```
    int no = sc.nextInt();
    sc.nextLine();
    System.out.print("Name: ");
    String n = sc.nextLine();
    System.out.print("Balance: ");
    double b = sc.nextDouble();
    list.add(new Account(no, n, b));
    save();
}

else if (ch == 2) {
    System.out.print("Acc No: ");
    Account a = find(sc.nextInt());
    if (a != null) a.deposit(sc.nextDouble());
    save();
}

else if (ch == 3) {
    System.out.print("Acc No: ");
    Account a = find(sc.nextInt());
    if (a != null) a.withdraw(sc.nextDouble());
    save();
}

else if (ch == 4) {
    Account a = find(sc.nextInt());
    if (a != null) a.display();
    else System.out.println("Not found");
}

else if (ch == 5) {
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            for (Account a : list) a.display();
        }

        else break;
      }
   }
}
2. import java.io.*;
import java.util.*;

class Account {
   int no;
   String name;
   double bal;

   Account(int no, String name, double bal) {
      this.no = no;
      this.name = name;
      this.bal = bal;
   }

   public String line() {
      return no + "|" + name + "|" + bal;
   }

   static Account parse(String s) {
      String[] p = s.split("\\|");
      return new Account(Integer.parseInt(p[0]), p[1], Double.parseDouble(p[2]));
   }
}
```

```
public class MiniBankLite {

    static final String FILE = "bankdata.txt";
    static final double MIN = 750;

    static List<Account> load() throws Exception {
        List<Account> list = new ArrayList<>();
        File f = new File(FILE);
        if (!f.exists()) return list;

        Scanner fs = new Scanner(f);
        while (fs.hasNextLine())
            list.add(Account.parse(fs.nextLine()));
        fs.close();
        return list;
    }

    static void save(List<Account> list) throws Exception {
        PrintWriter pw = new PrintWriter(FILE);
        for (Account a : list) pw.println(a.line());
        pw.close();
    }

    static Account find(List<Account> list, int no) {
        for (Account a : list)
            if (a.no == no) return a;
        return null;
    }

    public static void main(String[] args) throws Exception {
        Scanner sc = new Scanner(System.in);
```

```
List<Account> data = load();

while (true) {
   System.out.println("\n1 Add 2 Deposit 3 Withdraw 4 Search 5 Exit");
   int ch = sc.nextInt();

   if (ch == 1) {
      System.out.print("No: ");
      int n = sc.nextInt();
      sc.nextLine();
      System.out.print("Name: ");
      String nm = sc.nextLine();
      System.out.print("Bal: ");
      double b = sc.nextDouble();
      data.add(new Account(n,nm,b));
      save(data);
   }

   else if (ch == 2) {
      System.out.print("No: ");
      Account a = find(data, sc.nextInt());
      if (a != null) {
         System.out.print("Amt: ");
         a.bal += sc.nextDouble();
         save(data);
      }
   }

   else if (ch == 3) {
      System.out.print("No: ");
      Account a = find(data, sc.nextInt());
```

```
            if (a != null) {
                System.out.print("Amt: ");
                double x = sc.nextDouble();
                if (a.bal - x >= MIN) a.bal -= x;
                else System.out.println("Min balance " + MIN);
                save(data);
            }
        }

        else if (ch == 4) {
            Account a = find(data, sc.nextInt());
            if (a != null)
                System.out.println(a.no+" "+a.name+" "+a.bal);
            else
                System.out.println("Not found");
        }

        else break;
      }
   }
}
```