

1. Write a Java program to create a class known as "BankAccount" with methods called deposit() and withdraw(). Create a subclass called SavingsAccount that overrides the withdraw() method to prevent withdrawals if the account balance falls below one hundred.

```
class BankAccount {
    private String accountNumber;
    private double balance;

    public BankAccount(String accountNumber, double balance) {
        this.accountNumber = accountNumber;
        this.balance = balance;
    }

    public void deposit(double amount) {
        balance += amount;
    }

    public void withdraw(double amount) {
        if (balance >= amount) {
            balance -= amount;
        } else {
            System.out.println("Insufficient balance");
        }
    }

    public double getBalance() {
        return balance;
    }
}

// SavingsAccount.java
// Child class SavingsAccount
class SavingsAccount extends BankAccount {
    public SavingsAccount(String accountNumber, double balance) {
        super(accountNumber, balance);
    }

    @Override
    public void withdraw(double amount) {
        if (getBalance() - amount < 100) {
            System.out.println("Minimum balance of $100 required!");
        } else {
            super.withdraw(amount);
        }
    }
}
```

```

}
// Main.java
// Main class
public class Main {
    public static void main(String[] args) {
        System.out.println("Create a Bank Account object (A/c No. BA1234) with initial balance of $500.");
        //Create a BankAccount object (A/c No. "BA1234") with initial balance of $500
        BankAccount BA1234 = new BankAccount("BA1234", 500);

        // Deposit $1000 into account BA1234
        System.out.println("Deposit $1000 into account BA1234.");
        BA1234.deposit(1000);
        System.out.println("New balance after depositing $1000: $" + BA1234.getBalance());

        // Withdraw $600 from account BA1234
        System.out.println("Withdraw $600 from account BA1234.");
        BA1234.withdraw(600);
        System.out.println("New balance after withdrawing $600: $" + BA1234.getBalance());

        // Create a SavingsAccount object (A/c No. "SA1234") with initial balance of $450
        System.out.println("\nCreate a SavingsAccount object (A/c No. SA1234) with initial balance of $450.");
        SavingsAccount SA1234 = new SavingsAccount("SA1234",450);

        // Withdraw $300 from SA1234
        SA1234.withdraw(300);
        System.out.println("Balance after trying to withdraw $300: $" + SA1234.getBalance());

        // Create a SavingsAccount object (A/c No. "SA1000") with initial balance of $300
        System.out.println("\nCreate a SavingsAccount object (A/c No. SA1000) with initial balance of $300.");
        SavingsAccount SA1000 = new SavingsAccount("SA1000",300);

        // Withdraw $250 from SA1000 (balance falls below $100)
        System.out.println("Try to withdraw $250 from SA1000!");
        SA1000.withdraw(250);
        System.out.println("Balance after trying to withdraw $250: $" + SA1000.getBalance());

    }
}

```

Output:-

```
java -cp /tmp/3OQko3m0pj/Main
```

Create a Bank Account object (A/c No. BA1234) with initial balance of \$500:

Deposit \$1000 into account BA1234:

New balance after depositing \$1000: \$1500.0

Withdraw \$600 from account BA1234:

New balance after withdrawing \$600: \$900.0

Create a SavingsAccount object (A/c No. SA1234) with initial balance of \$450:

Balance after trying to withdraw \$300: \$150.0

Create a SavingsAccount object (A/c No. SA1000) with initial balance of \$300:

Try to withdraw \$250 from SA1000!

Minimum balance of \$100 required!

Balance after trying to withdraw \$250: \$300.0

=== Code Execution Successful ===