Practical-4

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Title: Develop a Java program for simulation of any real time application with required functionalities. For eg. ATM machine with functionalities like checking account balance, withdrawing, and depositing money. Use try, catch, and finally blocks to handle potential exceptions such as insufficient funds (throwing ArithmeticException) and invalid input (throwing IllegalArgumentException). Ensure that the application continues to run smoothly after handling exception.

INPUT:-

```
import java.util.Scanner;
public class ATM
{
   float balance;
   public ATM(float b)
   {
      balance=b;
   }

   public void check_balance()
   {
      System.out.println("the balance in your account is: "+balance);
   }

   public void deposite(float depamt)
   {
      try
      {
         if(depamt<0)
         {
            throw new IllegalArgumentException();
         }
         balance+=depamt;
         System.out.println("the new balance is : "+balance);
      }
      catch(IllegalArgumentException e)
      {
         System.out.println("Error:invalid amount");
         System.out.println("Error:"+e.getMessage());

      }
      finally
      {
      System.out.println("your transaction has ended succefully");
      }
```

```
}

public void withdraw(float withamt)
{
   try
   {
      if(withamt>balance)
      {
         throw new ArithmeticException("Error: not sufficient balance");
      }
   balance-=withamt;
   System.out.println("the new balance is: "+balance);
   }
   catch(ArithmeticException e)
   {
      System.out.println("ERROR: insufficient balance"+e.getMessage());
   }
   finally
   {
   System.out.println("your transaction has ended succefully");
   }
}

public static void main(String[] args)
{
   Scanner sc=new Scanner(System.in);
   ATM obj=new ATM(500);
   System.out.println("choose");
   String cont="yes";
   while(cont.equalsIgnoreCase("yes"))
   {
   System.out.println("1:Check Balance");
   System.out.println("2:Deposite Money");
   System.out.println("3:Withdraw Money");
   int choice=sc.nextInt();

   switch(choice)
   {
      case 1:
         obj.check_balance();
         break;
      case 2:
         System.out.println("Enter the amount you want to deposite in your account");
         float deptamt=sc.nextFloat();
         obj.deposite(deptamt);
         break;
      case 3:
         System.out.println("Enter the amount you want to withdraw in your account");
         float Wamt=sc.nextFloat();
         obj.withdraw(Wamt);
         break;
```

```
        default:
            System.out.println("wrong input");
        }
        System.out.println("Do you want to continue: (yes/no)");
        cont=sc.next();
    }
        sc.close();
    }
}
```

OUTPUT: