```
import java.io.*;

////////////////////////////////////////////////////////////////////////////
//                                                                        //
//  The following program calculates the number of years it takes for the //
//  balance of an account to exceed $100,000. The user enters the initial //
//           balance but the interest rate is fixed at 9.25%.             //
//                                                                        //
//                                                                        //
//                          WRITTEN BY: ALAIN DADAIAN                     //
//                                                                        //
////////////////////////////////////////////////////////////////////////////

class CompoundInterestAccount
{
   private double balance, rate;

   //-----------------------------------------------------------------
   //  This is the constructor for the CompoundInterestAccount clas.
   //  It takes in two argurments balance and interest rate of type
   //  double.
   //-----------------------------------------------------------------
   public CompoundInterestAccount(double balance, double rate)
   {
      this.balance = balance;
      this.rate = rate;
   }

   //-----------------------------------------------------------------
   //  Computes and returns the balance for one year of interest.
   //-----------------------------------------------------------------
   public double compound()
   {
      balance += balance * rate;
      return balance;
   }

   //-----------------------------------------------------------------
   //  returns the balance.
   //-----------------------------------------------------------------
   public double getBalance()
   {
      return balance;
   }

}// end of class CompoundInterestAccount

////////////////////////////////////////////////////////////////////////////

class Hw02
{
   public static void main(String [] args) throws Exception
   {
      int years = 0;
      double balance, rate = 0.0925;

      BufferedReader br = new BufferedReader(new InputStreamReader(System.in));

      System.out.print ("Please enter the balance of your account: ");
      balance = Double.parseDouble(br.readLine());
      System.out.println();

      CompoundInterestAccount new_account = new CompoundInterestAccount(balance, rate);

      while (new_account.getBalance() <= 100000)
      {
         new_account.compound();
         years++;
      }

      if (years == 1)
      {
         System.out.print ("The number of years needed for the account");
         System.out.println (" to exceed $100,000 is " + years + " year.");
      }
      else
      {
         System.out.print ("The number of years needed for the account to");
         System.out.println (" exceed $100,000 is " + years + " years.");
```

```
      }
   }
}// end of class Hw02

////////////////////////////////////////////////////////////////////////////////
```