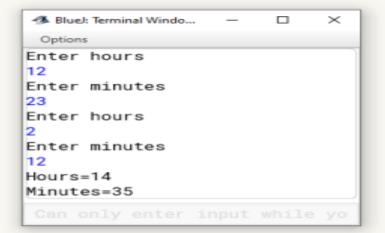
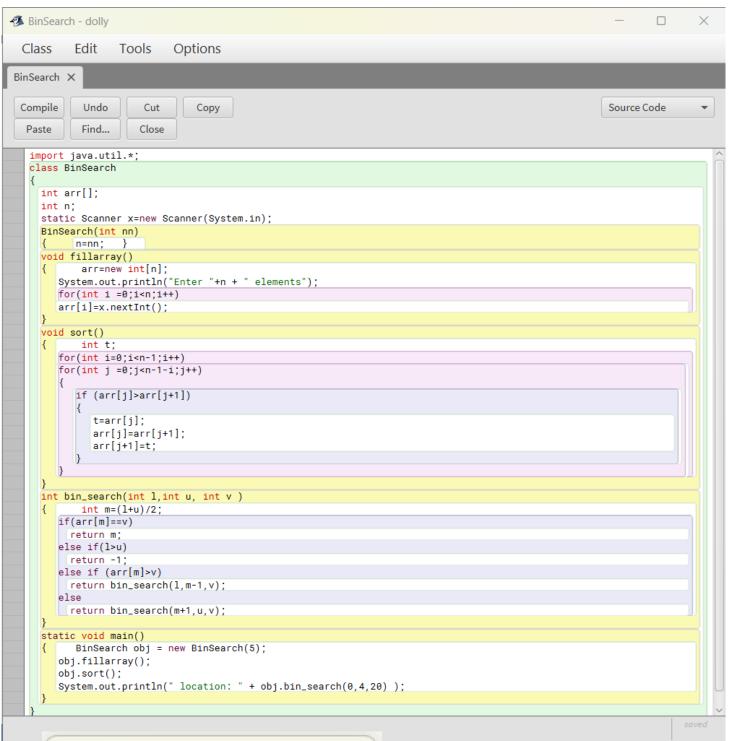
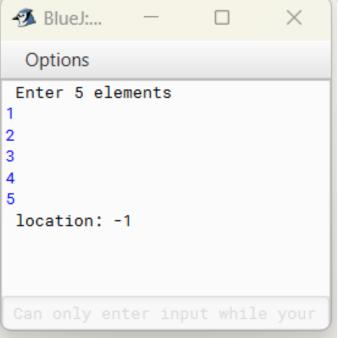
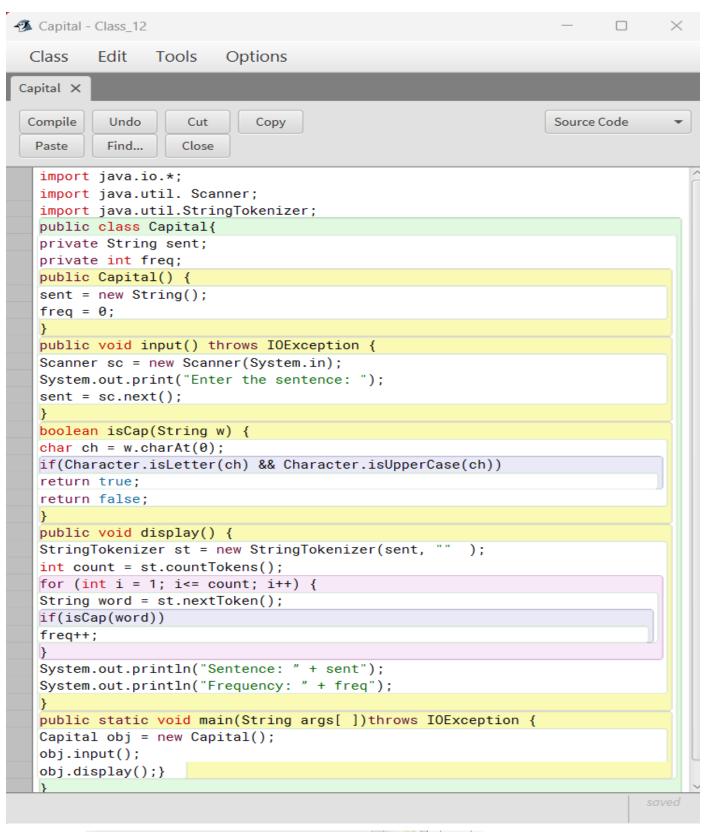
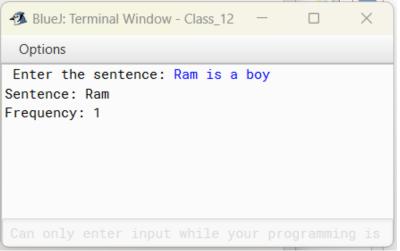
```
Adder - Dolly
 Class
       Edit
             Tools
                    Options
Adder X
 Compile
                     Copy Paste Find... Close
                                                                          Source Code
  import java.util.*;
  public class Adder
       int a[]=new int[2];
     Scanner x=new Scanner(System.in);
     Adder()
         a[0]=0;
         a[1]=0;
     void readtime()
              System.out.println("Enter hours");
        a[0]=x.nextInt();
        System.out.println("Enter minutes");
        a[1]=x.nextInt();
     void addtime(Adder X, Adder Y)
              int hour1 = X.a[0];
         <u>int</u> min1 = X.a[1];
         int hour2 = Y.a[0];
         int min2 = Y.a[1];
         int hourSum = hour1+hour2;
         int minsum = min1+min2;
         a[0] = hourSum+(minsum/60);
         a[1]= minsum%60;
      }
    void disptime()
             System.out.println("Hours=" + a[0]);
        System.out.println("Minutes=" + a[1]);
    static void main()
           Adder a=new Adder();
       Adder b=new Adder();
       Adder c=new Adder();
       a.readtime();
       b.readtime();
       c.addtime(a,b);
       c.disptime();
  }
```





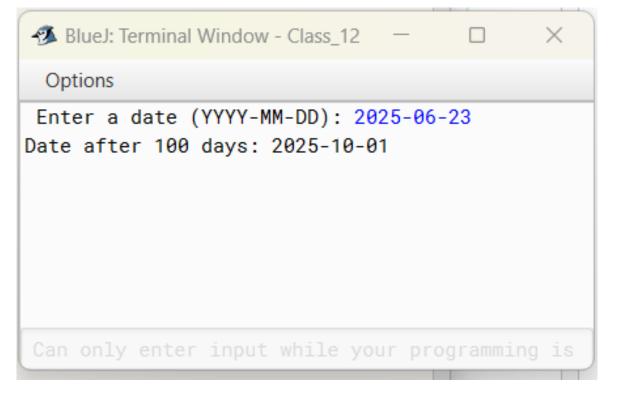


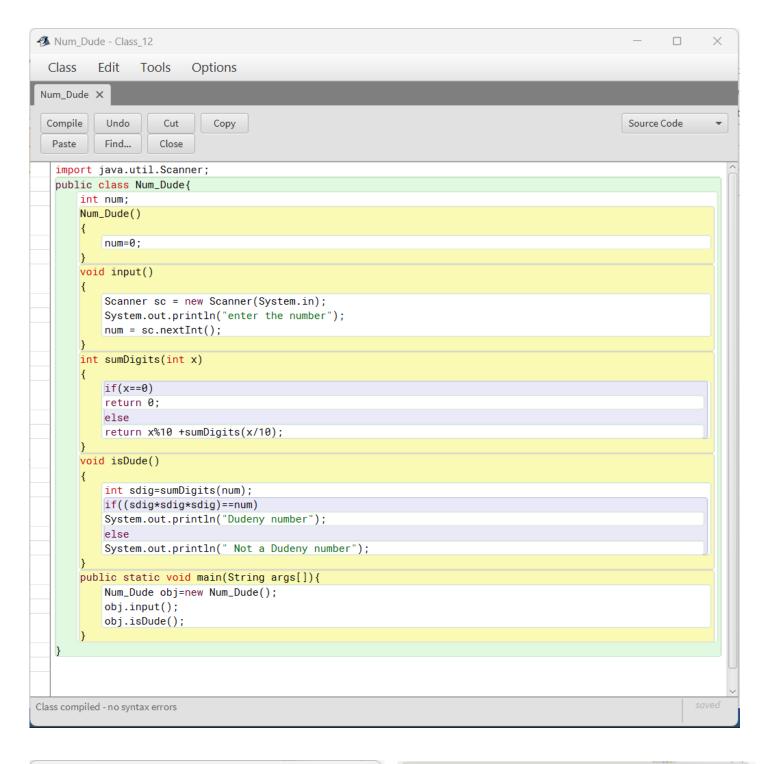


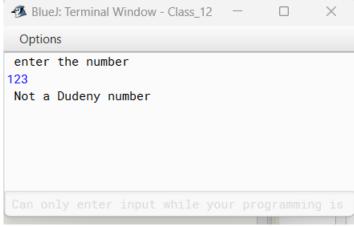


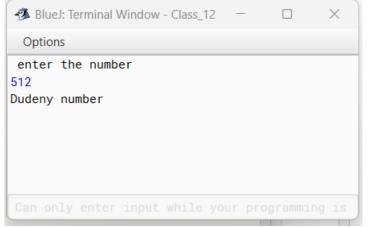
```
DateValidator - Class_12
 Class
         Edit Tools Options
DateValidator X
 Compile
           Undo
                    Cut
                            Сору
                                                                                                 Source Code
                   Close
  Paste
          Find...
  import java.util.Scanner;
  public class DateValidator {
       public static void main(String[] args) {
           Scanner scanner = new Scanner(System.in);
           // Input the date
           System.out.print("Enter a date (YYYY-MM-DD): ");
           String dateString = scanner.nextLine();
           // Validate the date
           if (!isValidDate(dateString)) {
               System.out.println("Invalid date format or date out of range.");
               return:
           // Calculate the future date
           String futureDate = calculateFutureDate(dateString, 100);
           // Print the future date
          System.out.println("Date after 100 days: " + futureDate);
       // Validate date format and range
       public static boolean isValidDate(String dateString) {
               String[] parts = dateString.split("-");
               if (parts.length != 3) {
                   return false;
               if (year < 0 || month < 1 || month > 12 || day < 1 || day > 31) {
                   return false;
               // Check for valid number of days in the month
               if (month == 2 && day > 29) {
                   return false;
               if ((month == 4 || month == 6 || month == 9 || month == 11) && day > 30) {
                  return false;
               }
               // Check for leap year and February
               if (month == 2 && day > 29 && !isLeapYear(year)) {
                  return false;
               }
               return true;
           } catch (NumberFormatException e) {
              return false;
       // Calculate future date
       public static String calculateFutureDate(String dateString, int days) {
               String[] parts = dateString.split("-");
               int year = Integer.parseInt(parts[0]);
               int month = Integer.parseInt(parts[1]);
               int day = Integer.parseInt(parts[2]);
               // Convert the date to days since the beginning of the year
               int daysSinceStartOfYear = day;
               for (int i = 1; i < month; i++) {
                   daysSinceStartOfYear += daysInMonth(year, i);
```

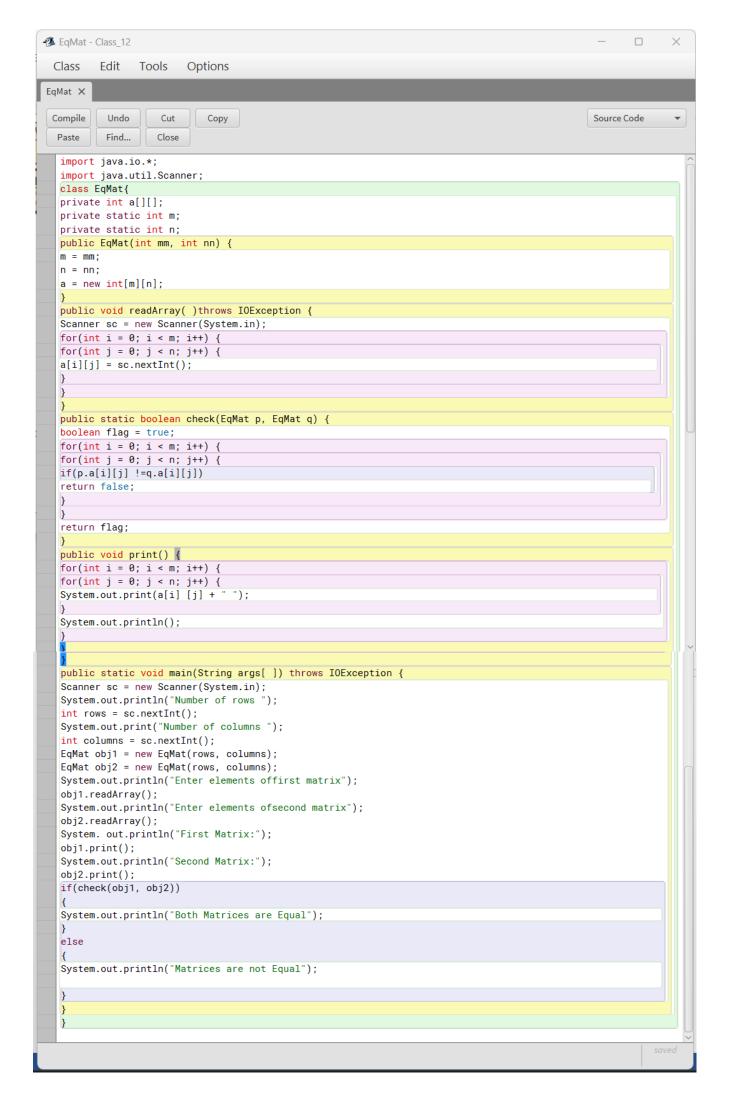
```
daysSinceStartOfYear += days;
            // Convert back to year, month, and day
            while (daysSinceStartOfYear > daysInYear(year)) {
                daysSinceStartOfYear -= daysInYear(year);
                year++;
            // Find the month
            int currentMonth = 1;
            while (daysSinceStartOfYear > daysInMonth(year, currentMonth)) {
                daysSinceStartOfYear -= daysInMonth(year, currentMonth);
                currentMonth++:
            // Find the day
            int currentDay = daysSinceStartOfYear;
            // Format the date
            String formattedDate = String.format("%04d-%02d-%02d", year, currentMonth, currentDay);
            return formattedDate;
        } catch (Exception e) {
           return "Error calculating future date";
    // Helper functions
   public static boolean isLeapYear(int year) {
       return (year % 4 == 0 && year % 100 != 0) || (year % 400 == 0);
   public static int daysInMonth(int year, int month) {
       int[] days = {0, 31, 28, 31, 30, 31, 30, 31, 30, 31, 30, 31};
if (month == 2 && isLeapYear(year)) {
            return 29;
          return days[month];
       public static int daysInYear(int year) {
          return isLeapYear(year) ? 366 : 365;
Class compiled - no syntax errors
```

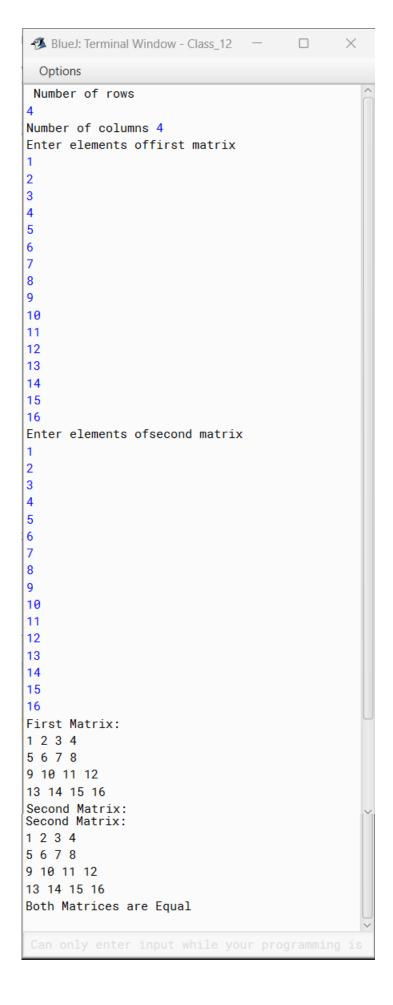


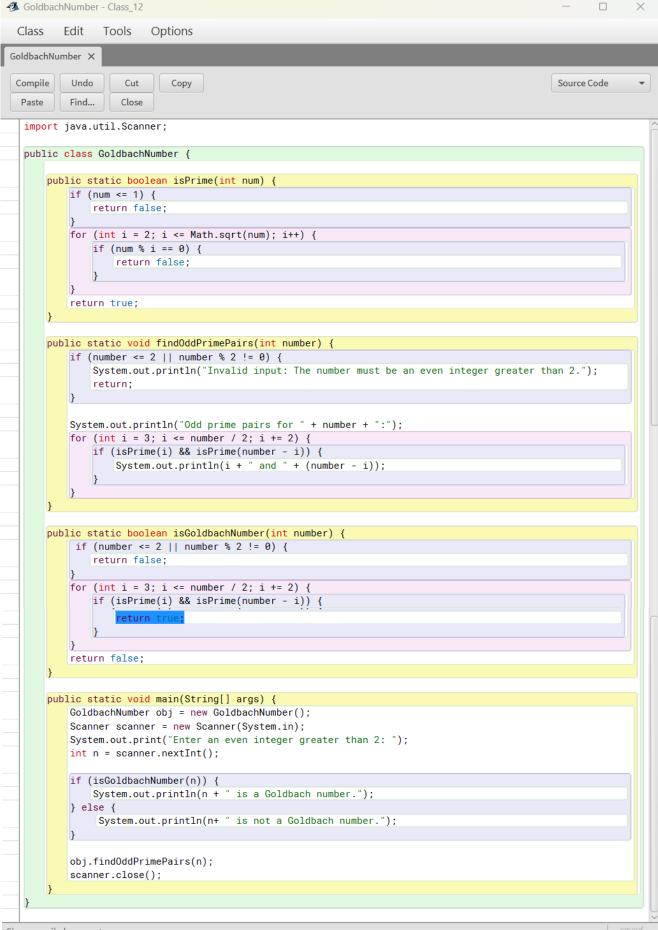


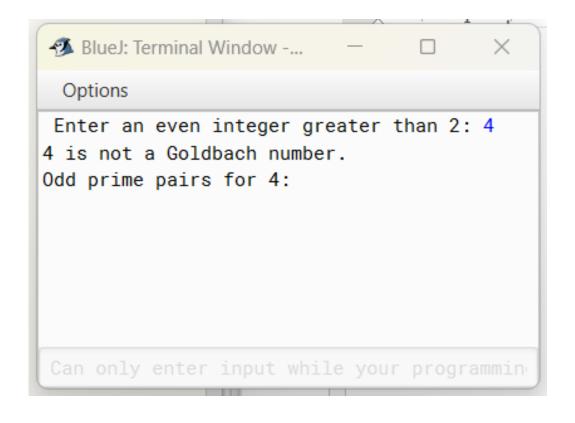


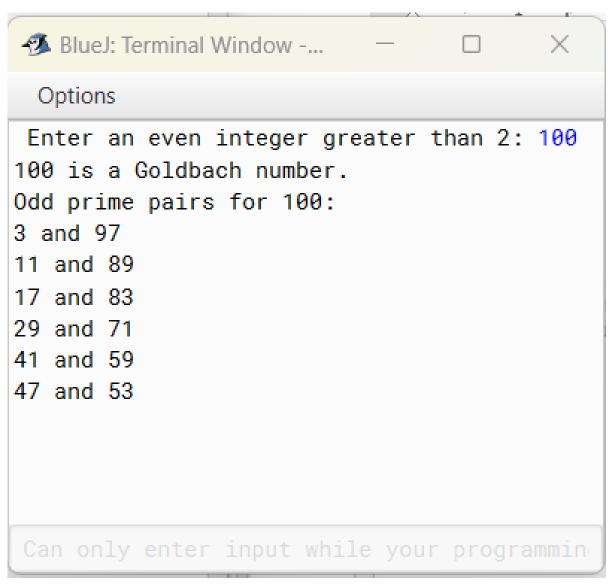


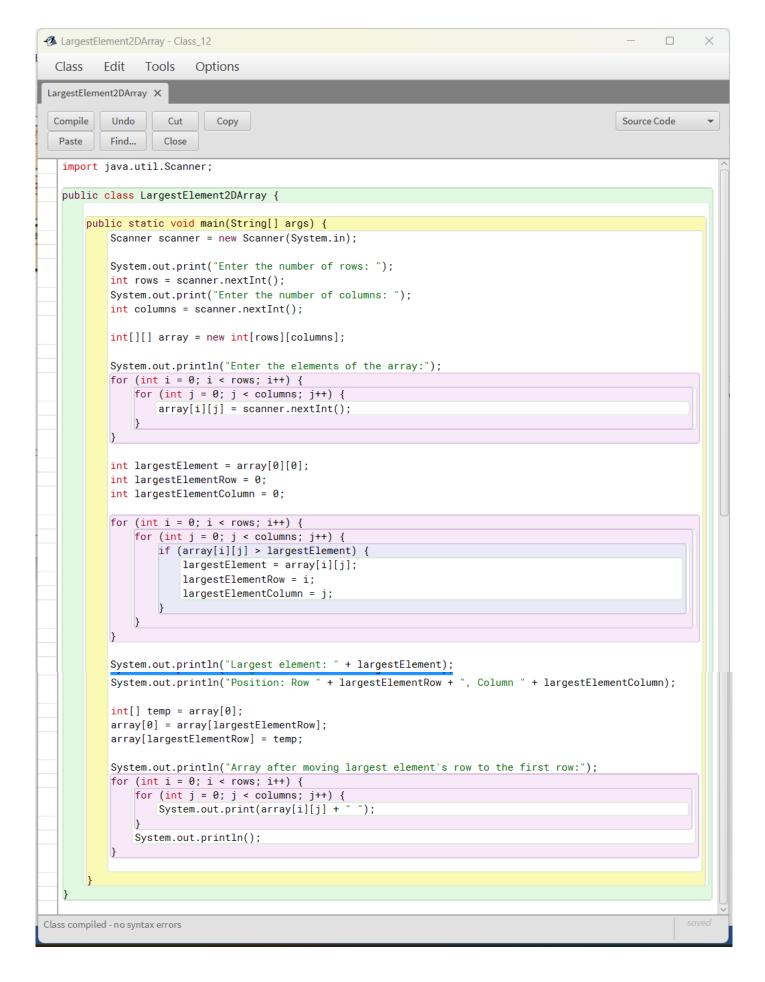












BlueJ: Terminal Window - Class\_12 Options Enter the number of rows: 4 Enter the number of columns: 4 Enter the elements of the array: 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 Largest element: 16 Position: Row 3, Column 3 Array after moving largest element's row to the first row: 13 14 15 16 5 6 7 8 9 10 11 12 1 2 3 4

