Java programming. Exercise session IV

In this exercise session, you will read an external file and create a database in Java. The file contains a list of 150 observations of *iris* flowers from three different species. There are 4 measurements of given flowers: *sepal length*, *sepal width*, *petal length* and *petal width*, all in the same unit of centimetres. Three species of *iris* flowers are *setosa*, *versicolor* or *virginica*.

Exercise instructions:

1. Create a new class called ***FileLoad***.
2. Create a new class called ***Flower*** in the same package with ***FileLoad***.
3. Write a constructor for ***Flower*** class with the following parameters:
   - type;
   - dimensional parameters (*sepal length*, *sepal width*, *petal length* and *petal width*).
4. Load file "*iris.csv*" to Java and extract data into internal database (i.e., ArrayList).
5. Print out the created database of *iris* flowers.

Core structure of ***FileLoad*** class:

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

public class FileLoad {

         public static void main(String[] args){

              String dataFile = "iris.csv";
              // Define buffer and split element

              // Create and ArrayList for Flowers (flowerList)

              try {
                     br = ; // load a file into buffer

              // Cycle through the file
              while ((line = br.readLine()) != null) {

              // Read each line of file and store data into database

                     }
              } catch (FileNotFoundException e) {
                     e.printStackTrace();
              } catch (IOException e) {
                     e.printStackTrace();
              }

         // Print out fields of flowerList elements. To get element of ArrayList, command
         flowerList.get(i) can be used. Remember to read fields of the objects.

           }
       }

public class Flower {

       // Define a class Flower with a constructor.

       }
```