

Philip Pesic

Week 15

April 30 2023

Week 15 Program

1) Open a TEXT editor program

2) Type in 50 words, one word per line, all words of the SAME category, max chars per word is

8.

Example: 50 words of some names in the periodic table, or Flowers, or cars or....

3) Save the file as myWordFile.txt

Part 2

Write a program that reads the myWordFile.txt

1) Create an array of 'strings' called myWordArray

2) Write code that opens the file

3) Read one word at a time from the file and then write it into the myWordArray.

Part 3

In the program, after all words are read from the file and written into the array...

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Find code to randomize the 50 words in the array, Partial hint below...

```
int r = 0;
```

```
string temp;
```

```
for (int x = 0; x < 50; x++)
```

```
{
```

```
    r = random.....number..... // code to get a random number between 1..49
```

```
    temp = myWordArray[x];
```

```
    myWordArray[x] = myWordArray[r];
```

```
    myWordArray[r] = temp;
```

```
}
```

Part 4

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In the program, write a Loop for the array and print out the 50 words.

```
package Prog;
```

```
import java.io.File;
import java.io.FileNotFoundException;
import java.util.Scanner;
import java.util.Random;

class prog {

    public static void shuffleArrayInPlace(String arr[], int size) {
        Random rand = new Random();

        for (int i = 0; i < size; i++) {

            int lastIndex = size - i - 1;

            int randomIndex = rand.nextInt(lastIndex + 1);
            String tempSwapper = arr[lastIndex];
            arr[lastIndex] = arr[randomIndex];
            arr[randomIndex] = tempSwapper;
        }
    }

    public static void main(String[] args) {
        String cars[] = new String[50];
        int i = 0;
        try {
            File car = new File("Prog/Cars.txt");
            Scanner in = new Scanner(car);
            while (in.hasNextLine()) {
                cars[i] = in.nextLine();
                i++;
                if (i >= 50) {
                    break;
                }
            }
        } catch (FileNotFoundException e) {
            e.printStackTrace();
        }
    }
}
```

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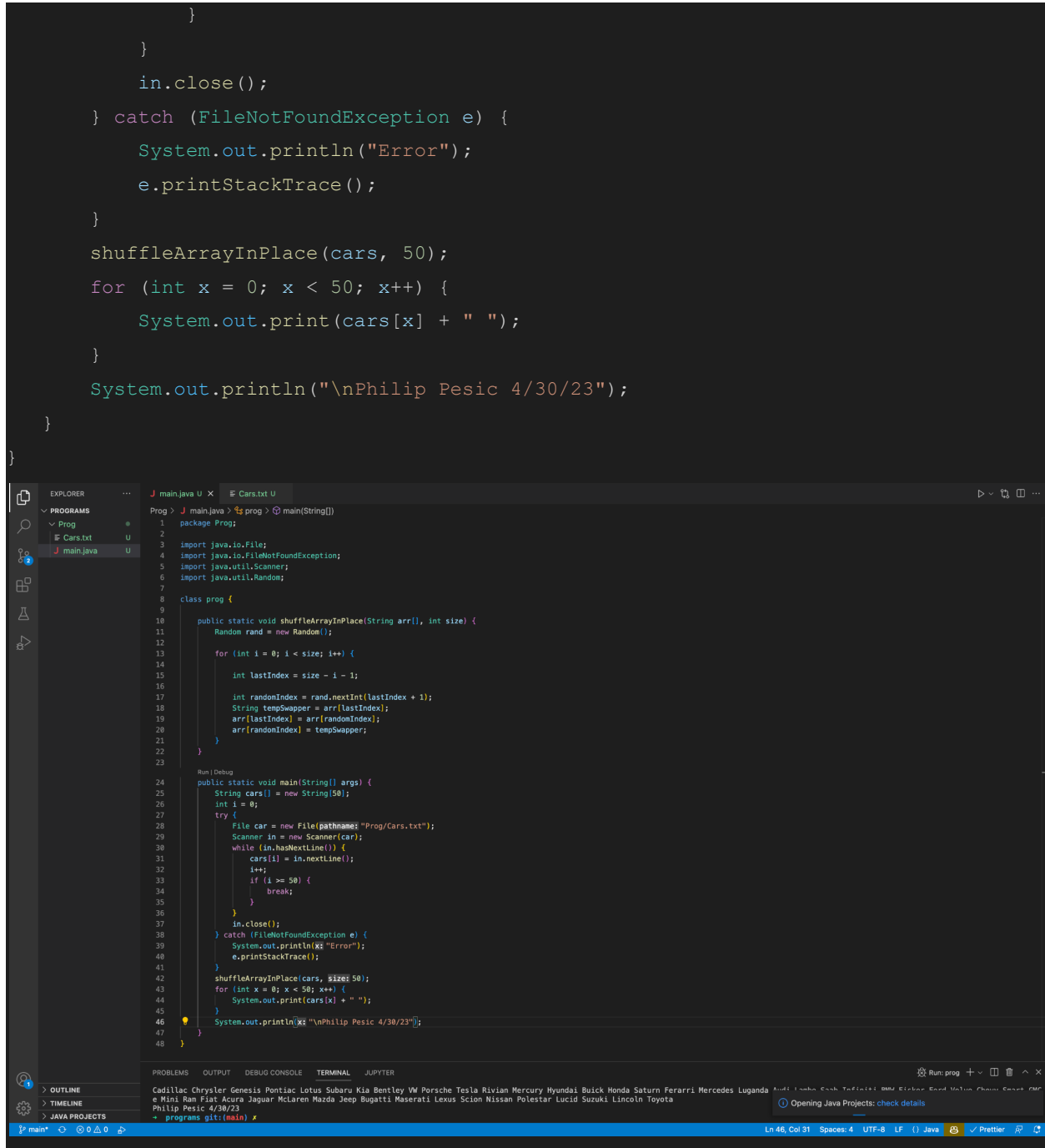
```
}

    }

    in.close();
} catch (FileNotFoundException e) {
    System.out.println("Error");
    e.printStackTrace();
}

shuffleArrayInPlace(cars, 50);
for (int x = 0; x < 50; x++) {
    System.out.print(cars[x] + " ");
}

System.out.println("\nPhilip Pesic 4/30/23");
}
}
```



The screenshot shows an IDE with a dark theme. The Explorer panel on the left shows a project named 'Prog' with files 'main.java' and 'Cars.txt'. The main editor displays the code for 'main.java', which includes imports for 'java.io.*', 'java.util.Scanner', and 'java.util.Random'. The code defines a 'prog' class with a 'shuffleArrayInPlace' method and a 'main' method. The 'main' method reads car names from 'Prog/Cars.txt' and prints them. The 'shuffleArrayInPlace' method shuffles the array in place. The output console at the bottom shows the car names: Cadillac, Chrysler, Genesis, Pontiac, Lotus, Subaru, Kia, Bentley, VW, Porsche, Tesla, Rivian, Mercury, Hyundai, Buick, Honda, Saturn, Ferrari, Mercedes, Luganda, e Mini, Ram, Fiat, Acura, Jaguar, McLaren, Mazda, Jeep, Bugatti, Maserati, Lexus, Scion, Nissan, Polestar, Lucid, Suzuki, Lincoln, Toyota. The status bar at the bottom indicates 'Ln 46, Col 31, Spaces: 4, UTF-8, LF, () Java, 65, Prettier'.

I learned how to read from a file in Java