

***** COVER PAGE *****

Class: CV

Name: Loyd Flores

Project: Project 0A

Project name: Java project submission exercise

Language: Java

Due Date: 9/6/2024 Friday before midnight

Submit date: 09/03/2024

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Top level algorithm steps'

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Step 0: inFile \leftarrow open from args [0]

outFile \leftarrow open from args [1]

Step 1: numOfRows \leftarrow read from inFile.

Step 2: Persons people[] \leftarrow new Person[numOfRows]; // create an array of Persons;

Step 3: index \leftarrow 0 // set initial counter to 0

Step 4: line \leftarrow read one row of data from inFile.

Step 5: name, age \leftarrow parse the name and age from the line

Step 6: p \leftarrow new Person(name, age) // create the Person object

Step 7: people[index++] = p; // save the person

Step 8: repeat steps 4 to 7 while index < numOfRows

Step 9: For each person, print the person.

Step 10: close inFile, outFile.

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Illustration: None

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***** SOURCE CODE *****

```
import java.io.BufferedReader;
import java.io.FileReader;
import java.io.BufferedWriter;
import java.io.FileWriter;
import java.io.IOException;

class Person {
    private String name;
    private int age;

    Person(String name, int age){
        this.name = name;
        this.age = age;
    }

    void printPerson(BufferedWriter writer) throws IOException {
        String describe = name + " is " + age + " years old. ";
        writer.write(describe + "\n");
    }
}

/**
 * FloresL_Project0_Main
 */
public class FloresL_Project0A_Main {
    public static void main(String[] args) throws IOException {
        BufferedReader reader = new BufferedReader(new
FileReader(args[0])); // input file
        BufferedWriter writer = new BufferedWriter(new
FileWriter(args[1])); // output file

        String line = reader.readLine();
        int numOfPeople = Integer.parseInt(line);
        Person people[] = new Person[4];
// Instantiate Person array
        writer.write("There are " + numOfPeople + " people \n" );

        int index = 0;
```

```
        while (index < numOfPeople) {
            line = reader.readLine();
            String data[] = line.split(" ");
Split name and age into an array
            String name = data[0];
            int age = Integer.parseInt(data[1]);
            Person p = new Person(name, age);
            people[index++] = p;
        }

        for(Person person : people) {
            person.printPerson(writer);
        }

        reader.close();
        writer.close();
    }
}
```

***** PROGRAM INPUT *****

4

Emily 24

Ben 29

Mark 22

Lisa 17

***** PROGRAM OUTPUT *****

There are 4 people

Emily is 24 years old.

Ben is 29 years old.

Mark is 22 years old.

Lisa is 17 years old.