

***** Cover Page *****

Class: CV
Name: Frank Yournet
Project: Project 0A
Project Name: Java project submission exercise
Language: Java
Due Date: 9/4/2024 before 12:00PM
Submit Date:

Top Level algorithm steps

Step 0: inFile ← open from argos[1]
outFile ← open from argos[1]

Step 1: numOfRows ← read from inFile

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

Step 3: index ← 0 //set initial counter to 0

Step 4: line ← read one row of data from inFile

Step 5: name, age ← parse the name and age from the line

Step 6: p ← 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 in people array, print the person

Step 10: close inFile, outFile

Illustration: None

***** 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");
    }
}

public class YournetF_Project0A_Main {
    public static void main(String args[]) throws IOException{
        BufferedReader reader = new BufferedReader(new FileReader(args[0]));
        BufferedWriter writer = new BufferedWriter(new FileWriter(args[1]));
        String line = reader.readLine();
        int numOfPeople = Integer.parseInt(line);
        Person people[] = new Person[numOfPeople];

        int index = 0;
        writer.write("*** There are " + numOfPeople+ " people ***" + "\n");
        while(index < numOfPeople){
            line = reader.readLine();
            String data[] = line.split(" ");
            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.