

CS 1073

FR04A

Assignment 1

Ebrahim Arefi

3621326

## I) Way Finding Algorithm:

Exit GE128  
Turn left into hallway  
Walk straight until you see the exit door  
Stop at the exit door (do not go outside)  
Turn left  
Take four steps forward  
Turn left again and you will see the elevator  
Press elevator button  
Wait until elevator arrives  
Walk into the elevator  
Press button for Main Floor (1st floor)  
Wait until elevator stops  
Exit elevator on Main Floor  
Turn left into hallway  
Walk straight until you see the exit door  
Open door and PASS through  
Enter small study hallway (TV on right)  
Walk straight through hallway  
Continue past blue garbage bins  
Walk until you see exit sign next to ITC308 with women's label on the door.  
Turn left and walk straight to end of hallway  
Until you reach the 4th door on the left  
ARRIVE at ITC317  
END

## II) Puzzle Problems:

### Scenario A:

1. Start in the **Safe Room**.
2. Move **one room south**, activate, then move **one room north** back to the Safe Room.
3. Move **one room east**, activate.
4. Move **one room east**, activate.
5. Move **one room east**, activate.
6. Move **one room south**, activate.
7. Move **one room west**, activate.
8. Move **one room west**, activate.
9. Move **one room south**, activate.
10. Move **one room west**, activate.
11. Move **one room south**, activate.
12. Move **one room east**, activate.
13. Move **one room east**, activate.
14. Move **one room north**, activate.
15. Move **one room east**, activate.
16. Move **one room south** into the **Exit**, activate, and exit safely

## Scenario B:

1) Send the child down first.

Put the statue (75 lbs) in Bucket A (at the top).

The child (90 lbs) enters Bucket B (on the ground).

Difference is 15 lbs, so is safe.

Then the statue comes up.

2) Send the professor down.

Now, Bucket A has the student (105 lbs) + statue (75 lbs) = 180 lbs.

Bucket B has the professor (195 lbs).

Difference is 15 lbs, so is safe.

Professor goes down safely and student + statue rise.

3) Send the student down.

Leave the statue in the room.

Put the student (105 lbs) in Bucket A (top).

Put the child (90 lbs) in Bucket B (bottom).

Difference is 15 lbs so is safe.

Student goes down safely, and child rises.

4) Send the child down again.

Put the statue (75 lbs) back into the bucket at the top.

Child (90 lbs) goes in the opposite bucket.

Difference is 15 lbs so is safe.

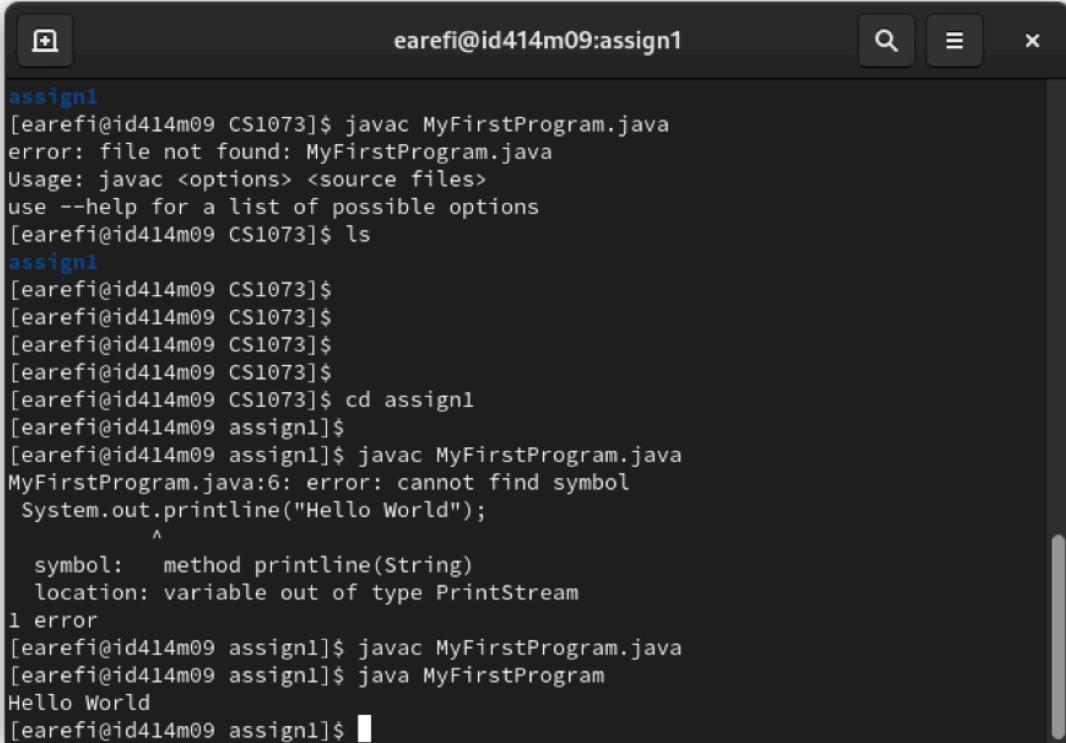
Child goes down and statue comes up.

## Part IV

Ebrahim Arefi  
Bachelor of computer science  
From Kuwait

## Part V

```
/**  
 *author Ebrahim Arefi 3621326  
 */  
public class MyFirstProgram {  
    public static void main(String[] args) {  
        System.out.println("Hello World");  
    }  
} //MyFirstProgram
```



The image shows a terminal window titled 'earefi@id414m09:assign1'. The terminal content is as follows:

```
assign1  
[earefi@id414m09 CS1073]$ javac MyFirstProgram.java  
error: file not found: MyFirstProgram.java  
Usage: javac <options> <source files>  
use --help for a list of possible options  
[earefi@id414m09 CS1073]$ ls  
assign1  
[earefi@id414m09 CS1073]$  
[earefi@id414m09 CS1073]$  
[earefi@id414m09 CS1073]$  
[earefi@id414m09 CS1073]$  
[earefi@id414m09 CS1073]$ cd assign1  
[earefi@id414m09 assign1]$  
[earefi@id414m09 assign1]$ javac MyFirstProgram.java  
MyFirstProgram.java:6: error: cannot find symbol  
    System.out.println("Hello World");  
           ^  
      symbol:   method println(String)  
      location: variable out of type PrintStream  
1 error  
[earefi@id414m09 assign1]$ javac MyFirstProgram.java  
[earefi@id414m09 assign1]$ java MyFirstProgram  
Hello World  
[earefi@id414m09 assign1]$
```

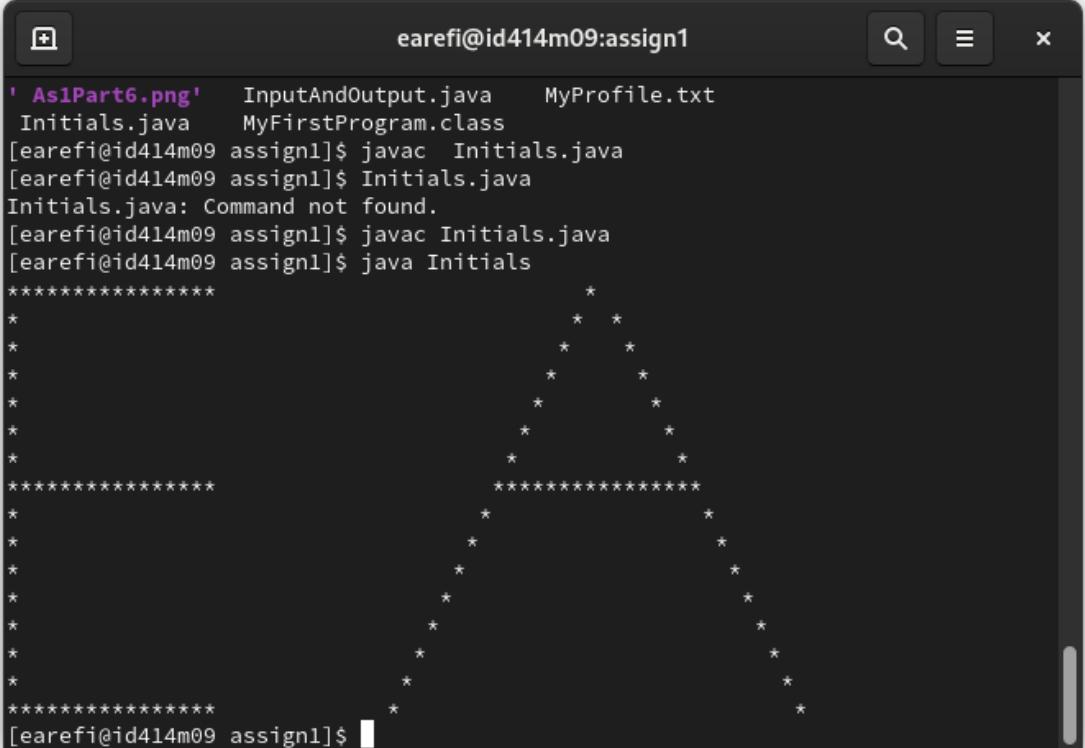
## Part VI)

```
import java.util.Scanner;
/**
 * @author Ebrahim Arefi 3621326
 */
public class InputAndOutput {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("My name is TOM. What is your name?");
        String userInput = sc.nextLine();
        System.out.println("Pleased to meet you, " + userInput);
        System.out.println("In which program are you enrolled?");
        String programInput = sc.nextLine();
        System.out.println("Nice to meet you " + userInput + ", " + "good luck with " +
programInput);
    }
}
```

## Part VII)

```
/*
@author Ebrahim Arefi 3621326
*/
public class Initials {

    public static void main(String[] args) {
        System.out.println("*****");
        System.out.println("*          *");
        System.out.println("*          *");
        System.out.println("*          *");
        System.out.println("*          *");
        System.out.println("*          *");
        System.out.println("*          *");
        System.out.println("*****");
        System.out.println("*          *");
        System.out.println("*          *");
        System.out.println("*          *");
        System.out.println("*          *");
        System.out.println("*          *");
        System.out.println("*          *");
        System.out.println("*****");
        System.out.println("*          *");
        System.out.println("*          *");
        System.out.println("*          *");
        System.out.println("*          *");
        System.out.println("*          *");
        System.out.println("*****");
        System.out.println("*          *");
        System.out.println("*****");
    }
}
```



```
' As1Part6.png'  InputAndOutput.java  MyProfile.txt
Initials.java  MyFirstProgram.class
[earefi@id414m09 assign1]$ javac Initials.java
[earefi@id414m09 assign1]$ Initials.java
Initials.java: Command not found.
[earefi@id414m09 assign1]$ javac Initials.java
[earefi@id414m09 assign1]$ java Initials
*****
*          *
*          *
*          *
*          *
*          *
*          *
*****          *****
*          *          *
*          *          *
*          *          *
*          *          *
*          *          *
*****          *****
*          *          *
*          *          *
*          *          *
*          *          *
*          *          *
*          *          *
*****          *****
*          *          *
*          *          *
*          *          *
*          *          *
*          *          *
*          *          *
*****          *****
[earefi@id414m09 assign1]$
```