

BIL 102
Computer Programming
Homework - 05

Due to May 02 –23:50

1) (65 Pts) Cin Ali Character Simulation:

In this question, you are asked to understand and modify a working project. Cin Ali is a basic character that can turn left, right and front sides, walk right and left direction, and jump up in the command window.

- i) You will examine and understand the code. Then you will write comments for every function.

For example:

```
/*  
 * Change the Character to front state posture  
 * Pre: character[][WIDTH] should be initialized  
 *   global parameters are defined  
 * Post: character[][WIDTH] is modified so that ...  
 */  
void frontPosture(char character[][WIDTH])  
{  
    ...  
}
```

- ii) You will write a “zeybek” function for Cin Ali to play Zeybek. (Understand the code and learn how to write it.). There is an Excel file for the drawings. Look at them and draw your Zeybek motion. 5 best playing Cin Ali’s will have their developers earn a bonus of 50 points.

Note the following issues:

- The implementation contains 3 files: main.c, Postures.c and Postures.h. To obtain an executable file, at first, you should compile first 2 of them (you don’t need to compile & link Posture.h because it is already included by the others) independently. And then, link using the object files main.o and Postures.o.
- main.c includes the environment dependent function ‘system(“clear”)’ to clear the screen. Generally, system(“command”) executes the “command” in the console and because ‘clear’ is a command to clear the screen in Linux, it clears the screen. Under Windows environment that line will not work properly and we expect you to write your code for Linux.

2) (35 Pts) Write a program that takes a string of nouns, separated by a space and outputs the plurals of the nouns on the basis of these rules:

- i) If a noun ends in “y”, remove the “y” and add “ies”.
ii) If a noun ends in “s”, “ch” or “sh” add “es”.
iii) In all other cases, just add “s”.

For example, if the input string is “chair dairy boss”, your program should output “chairs dairies bosses”.

General:

1. Obey honor code principles.
2. Obey coding convention.
3. Your submission should include the following files:

```
HW5_<studentNumber>_PART1_main.c // main.c
HW5_<studentNumber>_PART1_Postures.h // Postures.h
HW5_<studentNumber>_PART1_Postures.c // Postures.c
HW5_<studentNumber>_PART2.c //Second part of the homework
```

4. Deliver the printout of your code until 3 days later then the last submission date.