

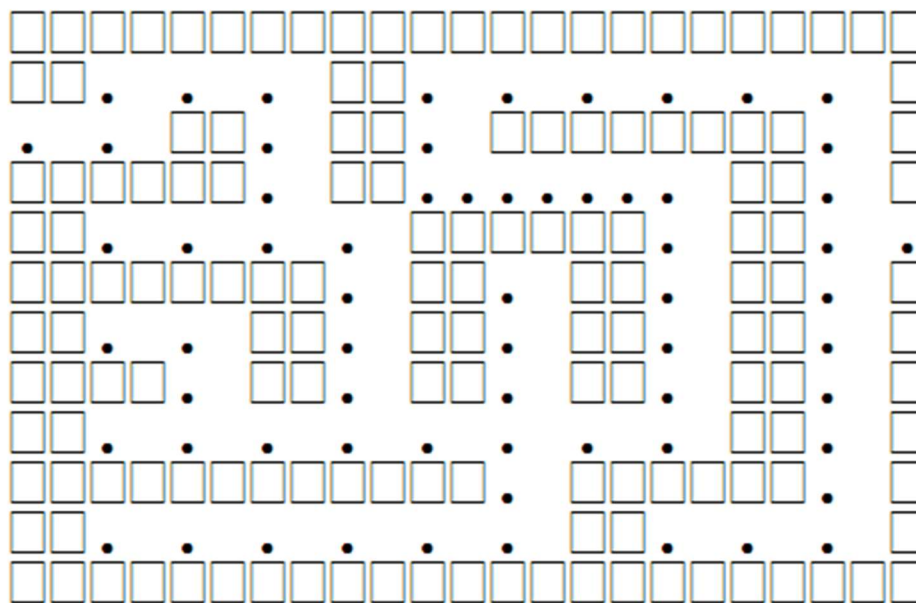
Important Note:

Please note that homework that has not been successfully passed from “Turnitin” for plagiarism will not be graded. Lab assistants will help you for this.

Assignment No	Description
Assignment 1 Due Date 7 th Mar. 2017	<p align="center">Generation of Computer Programming Languages</p> <ol style="list-style-type: none"> 1. What is a computer programming language? 2. What is a markup language? 3. What is a scripting language? 3. What are the alternatives to markup languages? <p>Submission of the homework should be made electronically to the e-mail address eeng212@emu.edu.tr</p>
Assignment 2 Due Date 14 th Mar. 2017	<p align="center">Structured Programming Review Homework</p> <ol style="list-style-type: none"> 1. What is Structured Programming? <i>(Please write in not more than 100 words).</i> 2. Why is it introduced? <i>(Please write in not more than 100 words).</i> 3. How many structures are there in contemporary Structured Programming languages? Give names and short descriptions of these structures. <i>(Please write in not more than 100 words).</i> 4. Specifying your reference source, give names of 5 structured programming languages. <i>(Please write in not more than 100 words).</i> <p>Submission of the homework should be made electronically to the e-mail address eeng212@emu.edu.tr</p>
Assignment 3 Due Date 21 th Mar. 2017	<p>Find a simple computer game program source code written in C-language from the Internet, compile and run it. Make your program ready for presentation in the computer lab.</p> <p>Submission of the homework should be made electronically to the e-mail address eeng212@emu.edu.tr</p>
Assignment 4 Due Date 5 th Apr. 2017	<p>Write an algorithm and draw a flowchart to sort randomly generated 10 numbers between 1 and 100 using the quicksort algorithm.</p> <p>Note 1: The algorithm is a step by step solution to a given problem. Hence, your algorithm should be labelled as</p> <p style="padding-left: 40px;"><i>Step 1: ...</i></p> <p style="padding-left: 40px;"><i>Step 2: ...</i></p> <p style="padding-left: 40px;">...</p> <p style="padding-left: 40px;"><i>Step M: ...</i></p> <p>Note 2: The flowchart should be drawn using Microsoft Visio Drawing Application.</p> <p>Submission of the homework should be made electronically to the e-mail address eeng212@emu.edu.tr</p>
Assignment 5 Due Date 30 th Apr. 2017	<p>Write an algorithm USING A LINKED LIST called STUDENT to enter a student’s Name, Age, Student ID Number and Nationality input from the keyboard. The linked list will have a variable number of nodes. The number of nodes will grow as a new student’s data is entered. The number of nodes will shrink as a student’s data is erased. There will be an option to display the entered data on the screen. The algorithm will also print the following menu and provide the following selections:</p> <p>-----</p> <p>Press 1 to INSERT a new person’s record into the list Press 2 to DELETE an existing person’s record from the list Press 3 to DISPLAY the list of records on the screen Press 4 to EXIT</p> <p>-----</p> <p>Draw a flowchart of your algorithm using Microsoft Visio’s flowcharting symbols. Convert your algorithm into a C-Program, compile and run it before you present it to the course assistant Faegheh Yeganli in the EENG212 Computer Lab. Your homework will be check for successfully compiling and running, the sense of algorithmic approach and flowcharting.</p> <p>Hint: Your program will have two functions which are called, <code>enter_new_data</code> and <code>remove_existing_data</code></p> <p>Submission of the homework should be made electronically to the e-mail address eeng212@emu.edu.tr</p>

Assignment 6
Due Date
4th May 2017

The following grid is a double-subscripted array representation of a maze where the □ symbols represent the walls of the maze, and the periods (.) represent passage areas in the possible paths through the maze.



The simple algorithm for walking through a maze that guarantees finding the exit (assuming there is an exit) is as follows:

- If there is no exit, you will arrive at the starting location again. Place your right hand on the wall to your right and begin walking forward. Never remove your hand from the wall.
- If the maze turns to the right, you follow the wall to the right. As long as you do not remove your hand from the wall, eventually you will arrive at the exit of the maze.
- There may be a shorter path than the one you have taken, but you are guaranteed to get out of the maze.

Write a non-recursive function `mazeTraverse` to walk through the maze. The function should receive as arguments a 12-by-12 character array representing the maze and the starting location of the maze. As `mazeTraverse` attempts to locate the exit from the maze, it should place the character `X` in each square in the path. The function should display the maze after each move so the user can watch as the maze is solved.

Note that, each movement of the cursor will be displayed on a clear screen.

Hint: The program at [assignment 6](#) is a solution of the above problem using recursive function. Replace the function with a non-recursive one for the above exercise.

Submission of the homework should be made electronically to the e-mail address eeng212@emu.edu.tr

Assignment 7
Due Date
18 May 2017

Draw a flowchart of Creating a binary tree and traversing it as preorder, inorder, and postorder. Your flowchart will have a main program body and subprogram bodies in separate pages. Use a standard flowcharting symbol set such as Cisco or Microsoft. A C-Program for Creating a binary trees is found at [this link](#).

Submission of the homework should be made electronically to the e-mail address eeng112@emu.edu.tr

