

## Assignment Day 4 | 8th May 2020

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For any doubts regarding the assignment, ask questions in the [Free Coding School Group](#) in the Community.

Submit the Assignment by **9th May 2020 10:00 AM.**

Assignment Submit Form : <https://bit.ly/FcsAssignement>

**Submit in Day 4 Dropdown**

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### Question 1:

Write a program to identify sub list [1,1,5] is there in the given list in the same order, if yes print "it's a Match" if no then print "it's Gone" in function

Example -

Listy = [1,5,6,4,1,2,3,5] - it's a Match

Listy = [1,5,6,5,1,2,3,6] - it's Gone

### Question 2:

FCS Silver Project (Refer [Course PPT](#) for more details)

- You now know enough to create a real program!
- For your first silver project you will create a Tic Tac Toe game for 2 human players.
- Let's describe what the game will be like...
- 2 players should be able to play the game (both sitting at the same computer)
- The board should be printed out every time a player makes a move
- You should be able to accept input of the player position and then place a symbol on the board

- Creating your first full program is always a big leap, but you will come out the other end a much better programmer!
- We've set up a walkthrough notebook for you to help guide you along with the functions you will need to create.
- Let's explore what the game will look like once it is done
- We'll also cover a few useful functions and go through the walkthrough notebook.
- Let's get started!

### **Solution Steps:**

- We need to print a board.
- Take in player input.
- Place their input on the board.
- Check if the game is won, tied, lost, or ongoing.
- Repeat b to d until the game has been won or tied.
- Ask if players want to play again.

**Step 1 :** Write a function that can print out a board. Set up your board as a list, where each index 1-9 corresponds with a number on a number pad, so you get a 3 by 3 board representation.

**Step 2 :** Write a function that can take in a player input and assign their marker as 'X' or 'O'. Think about using while loops to continually ask until you get a correct answer.

**Step 3:** Write a function that takes in the board list object, a marker ('X' or 'O'), and a desired position (number 1-9) and assigns it to the board.

**Step 4:** Write a function that takes in a board, along with marker and checks to see if someone has won.

**Step 5:** Write a function that uses the random module to randomly decide which player goes first. You may want to lookup `random.randint()` Return a string of which player went first.

**Step 6:** Write a function that returns a boolean indicating whether a space on the board is freely available.

**Step 7:** Write a function that checks if the board is full and returns a boolean value. True if full, False otherwise.

**Step 8:** Write a function that asks for a player's next position (as a number 1-9) and then uses the function from step 6 to check if its a free position. If it is, then return the position for later use.

**Step 9:** Write a function that asks the player if they want to play again and returns a boolean True if they do want to play again.

**Step 10:** Here comes the hard part! Use while loops and the functions you've made to run the game!

## FAQs

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### **Q. How to upload a jupyter notebook as a part of an assignment?**

- A. 1. Click "File" option in notebook  
2. Go to "Download As" -> "Notebook(.ipynb)"  
3. Upload the downloaded .ipynb file to google form

### **Q. When do I submit the Assignments and how?**

- A. All Assignments have to be submitted by 12 AM (on the same day). You can use Jupyter Notebook or python files or even Google Colab to Submit your Assignments.

### **Q. Where do I get class links for next session?**

- A. All sessions will be Live on Youtube from Day-1 to Day-7 at 11:00 AM, Subscribe to LetsUpgrade [YouTube Channel](#). You'll also get an email with the link to the live session.

**Q. I have some doubt, whom do I ask?**

- A. (a) Post your Queries on the community, someone will help you out.  
(b) We have a discussion group which you can access by Joining LetsUpgrade Telegram Channel (@letsupgrade\_in).

**Q. Sir don't have anaconda so how can I solve the assignment ?**

- A. Use Google Colab : [Click me](#)

**Q. Can we submit multiple .py or .ipynb assignment solution files for each question separately?**

- A. You can zip all the files together and submit. Make sure you are submitting a single file.

**Q. How can we know if my assignment is verified or not? And is it successfully submitted or not?**

- A. You will receive a mail for your successful submission. You will get a mail like this:

