In this activity, you are to create a C++ program in VS code that satisfies specific requirements to attain specific output.

**Objective/s:**

At the end of this activity, the students are expected to be able to:

* declare a two-dimensional array and other variables that will hold the required data
* use conditional and looping statements accordingly
* display the required output

**Material/s Needed:**

* Screen Recording Software
* Visual Studio Code
* MinGW

**Procedure:**

1. Create a video that shows yourself doing the machine problem.
2. The video should also show the screen of VS code as the program is coded.
3. The output window should be seen in the video as data is entered and the corresponding output of the program is displayed.

**Questions:***(to be answered within the video)*

Write a C++ program with the following specifications:

1. Use two-dimensional array with size 7 columns and 5 rows.
2. Seat numbers are populated during run-time.
3. User is asked to input a seat number.
4. Seat number chosen is replaced by 0.
5. Program displays a remark “Seat successfully reserved” when reservation is done.
6. User is not allowed to reserve a previously reserved seat. Display “Seat is taken” remarks.
7. User is not allowed to enter an invalid seat number. Display an error message.
8. Program continuously loops.

Sample Output:

1 2 3 4 5 6 7

8 9 10 11 12 13 14

15 16 17 18 19 20 21

22 23 24 25 26 27 28

29 30 31 32 33 34 35

Enter seat number to reserve : 11

1 2 3 4 5 6 7

8 9 10 **0** 12 13 14

15 16 17 18 19 20 21

22 23 24 25 26 27 28

29 30 31 32 33 34 35

Enter seat number to reserve :

**INSTRUCTIONS FOR THE STUDENTS:**

* *The filename of your lab activity should be:*

*“<Last Name><First Name>-MachineProblem0<XX>”*

* *Provide screenshots of your VS codes and program output copied to a Word file.*
* *Save your video file in “.mp4” or “.avi” format only.*
* *Upload your video to Google drive or any video sharing website such as YouTube and Vimeo.*
* *Copy the video link to a Word file, together with the screenshots of your VS codes and program output.*
* *Upload the Word file to the link provided for the activity in the LMS.*