Lab 3:

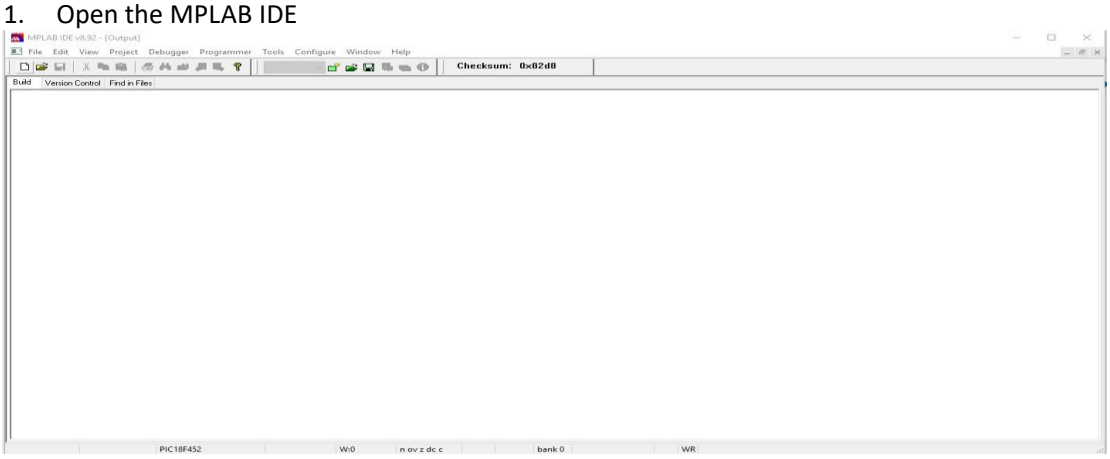
PIC Microcontrollers

Objective

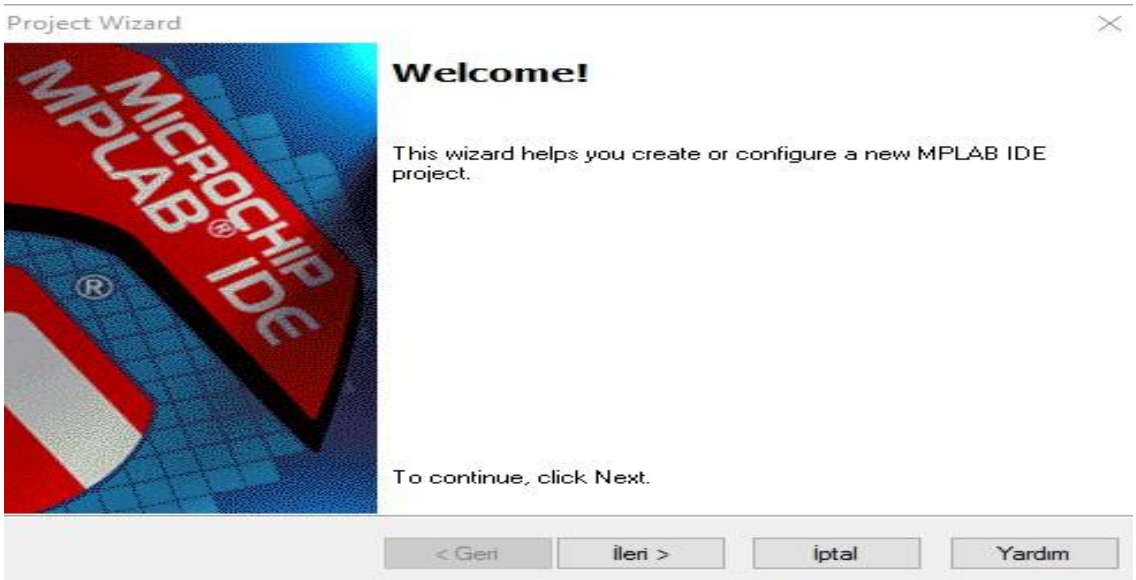
In this lab, we will learn basics of PIC Assembly coding. And, we will write PIC Assembly code that finds the number of odd number in an array. Then, we will simulate it in Proteus.

Steps of Usage of MPLAB:

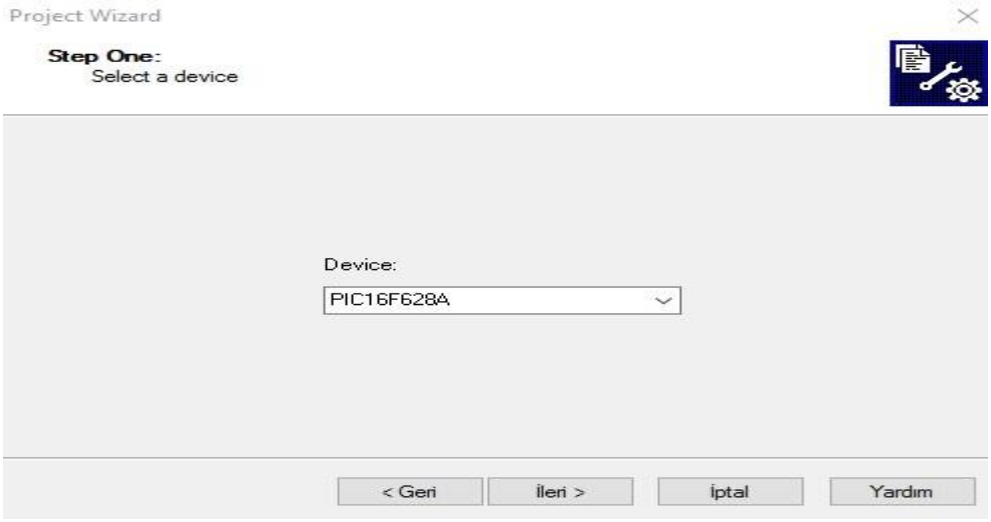
1. Open the MPLAB IDE



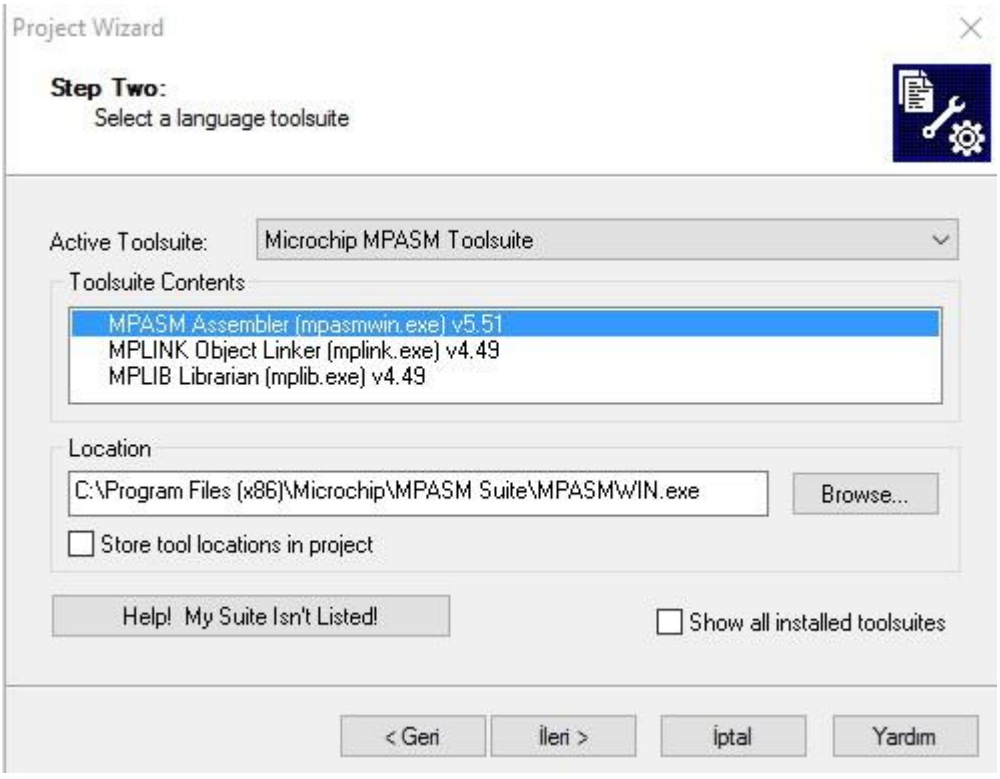
2. Select Project. Then, click Project Wizard.



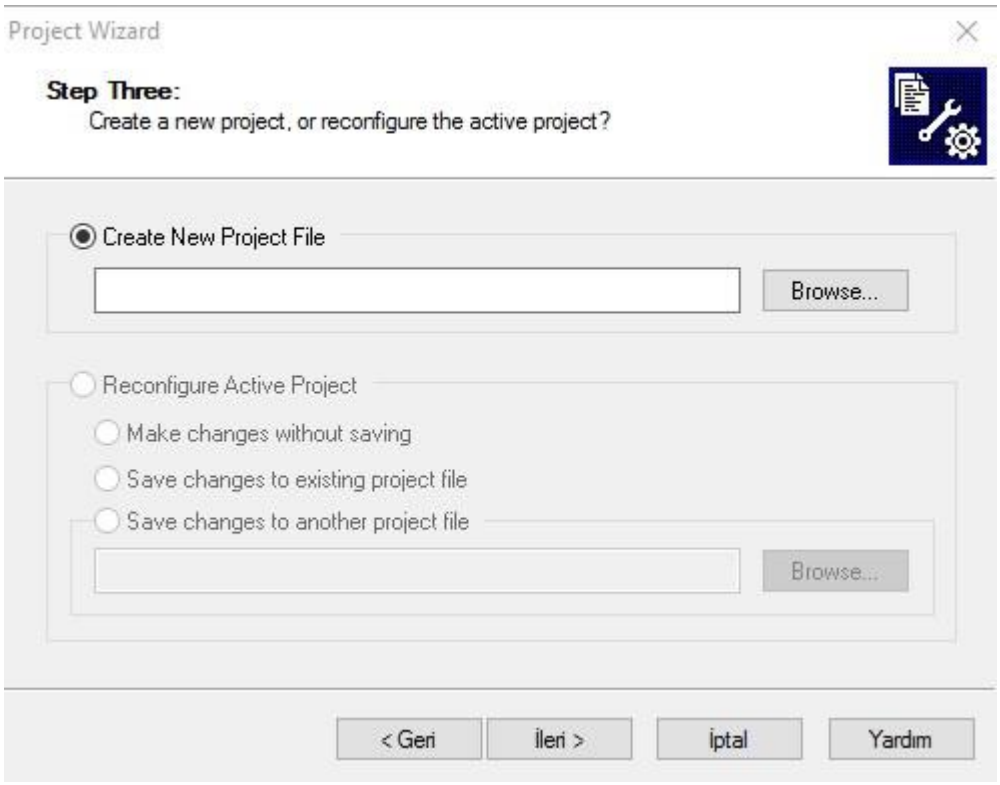
3. Then click next then select device name as PIC16F628A



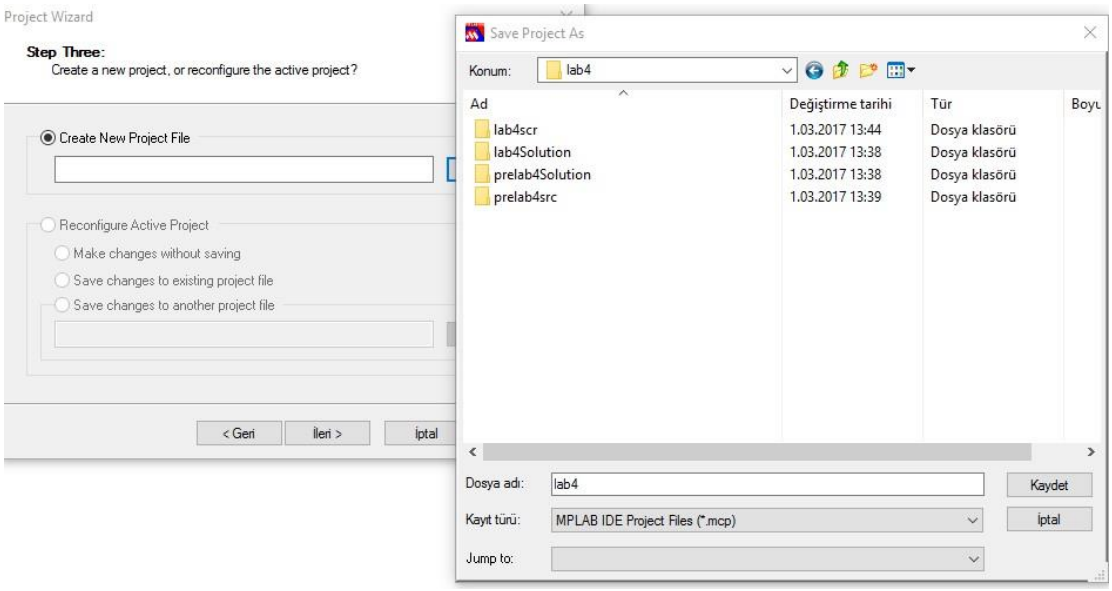
4. Then click next then select MPASM Assembler (mpasmwin.exe) v5.51



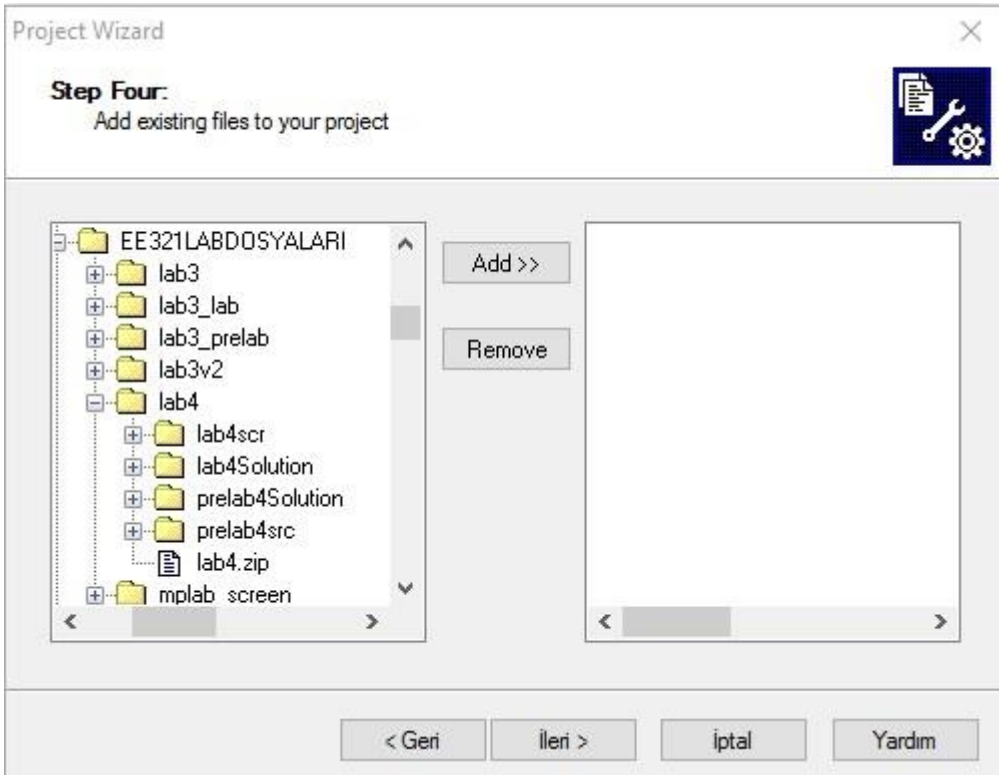
5. Then click next. Create New Project File option will be appeared.

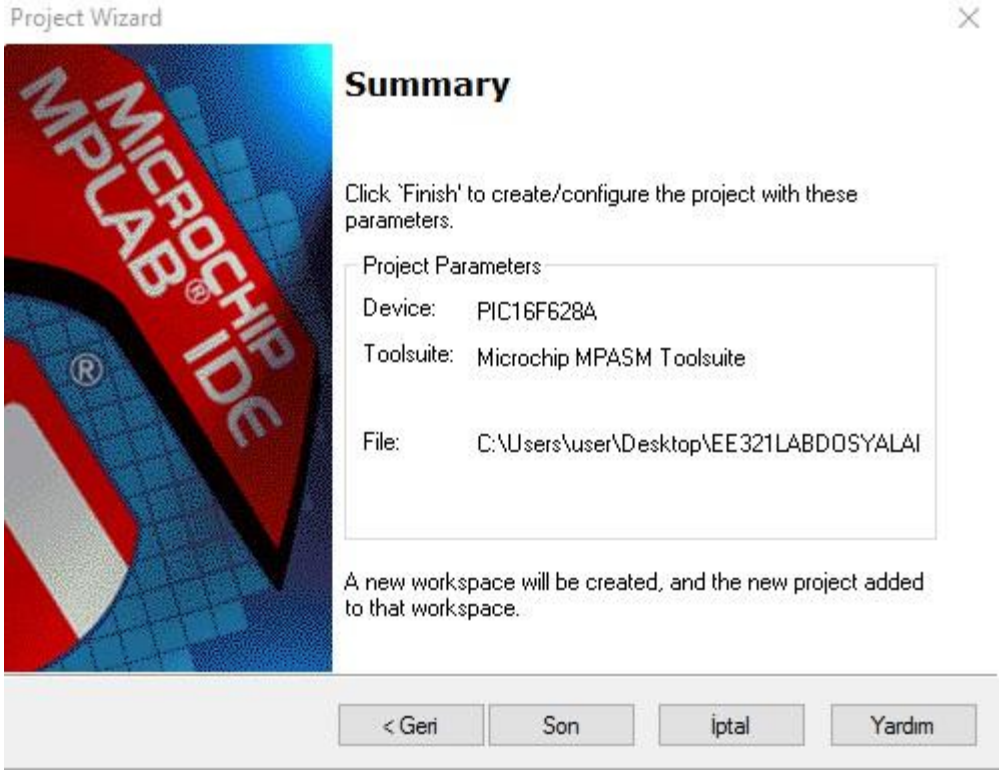


6. Click the Browse. Write folder name as “LAB4” and save it.

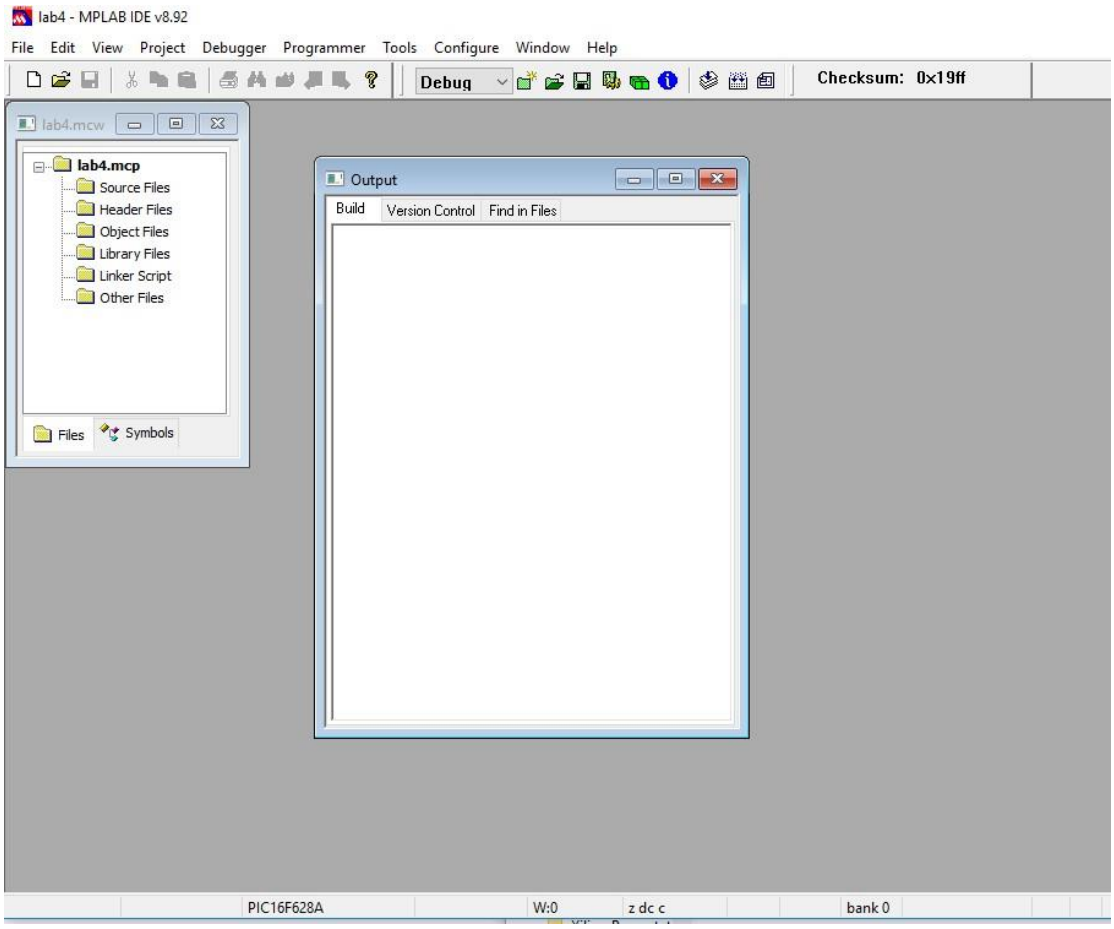


7. Then click 2 times next. And click finish.





8. Then click File and click New



9. Write your code here and save.

10. Then right click to the Source Files from left panel.

11. Click the Add Files. Choose your saved file.

12. Then click Build All.

13. It will generate an HEX file.

Lab Instructions

1. Download lab3 starting code and simulation file from LMS.
2. Complete the code. It should count number of odd numbers in array
3. Compile with MPLAB
4. Simulate the code in Proteus.
5. If your code working correctly, seven segment displays the number of odd numbers in the array.
6. Upload your code to LMS