

Software Guide

1. Open Quartus software. A window like Fig 1 will appear. Click on create new project.

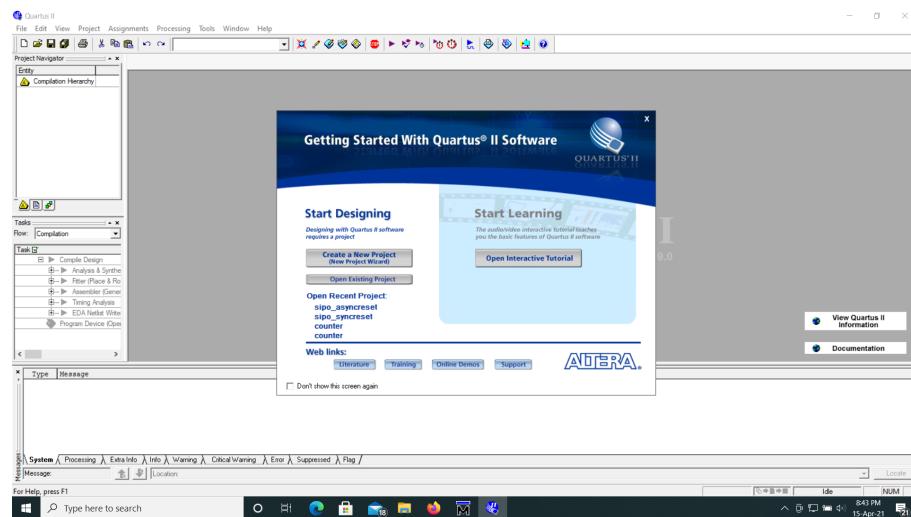


Figure 1: Step 1

2. Select the directory where you want to create the project. Give name to your project as shown in fig 2. The name should be same as entity name in the code.

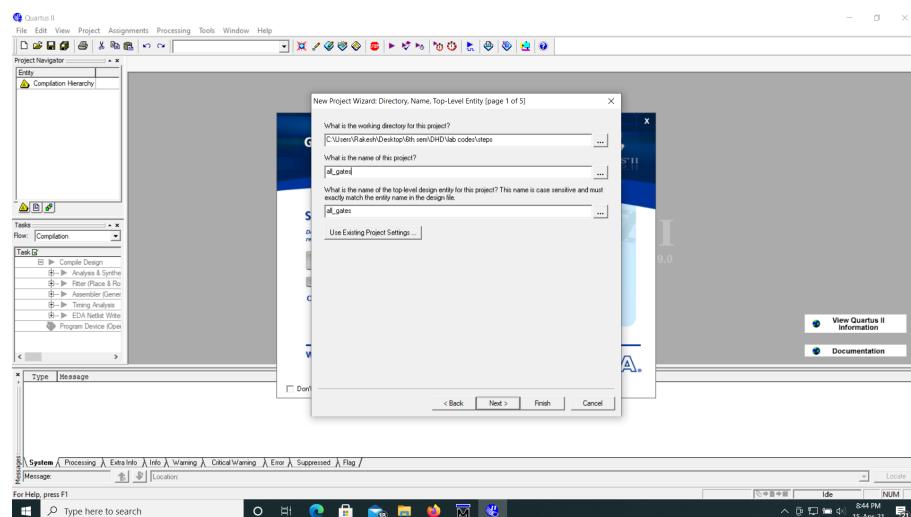


Figure 2: Step 2

0.1

3. Go to File on top left corner of Window shown in fig 3 and click on new.

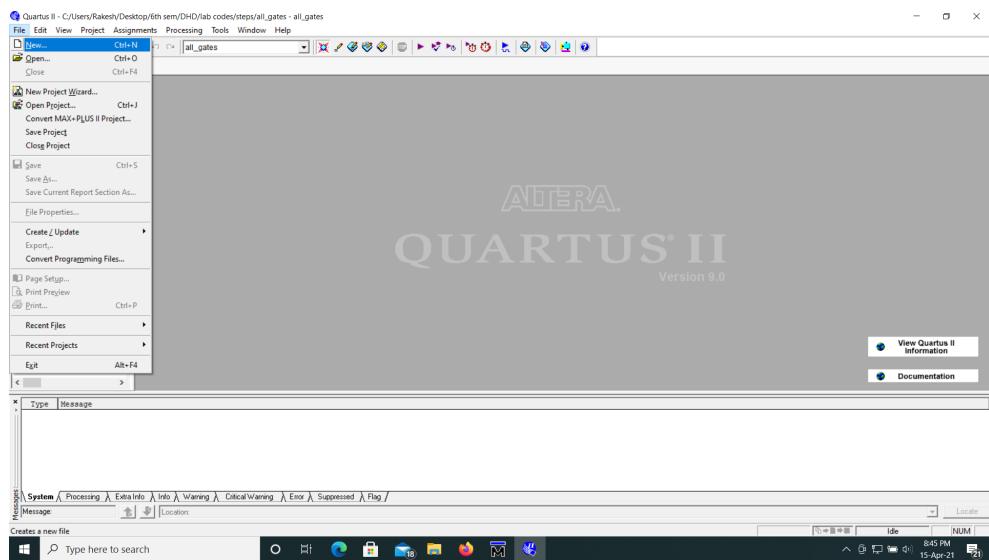


Figure 3: Step 3

4. select VHDL as shown in fig 4 and click on ok.

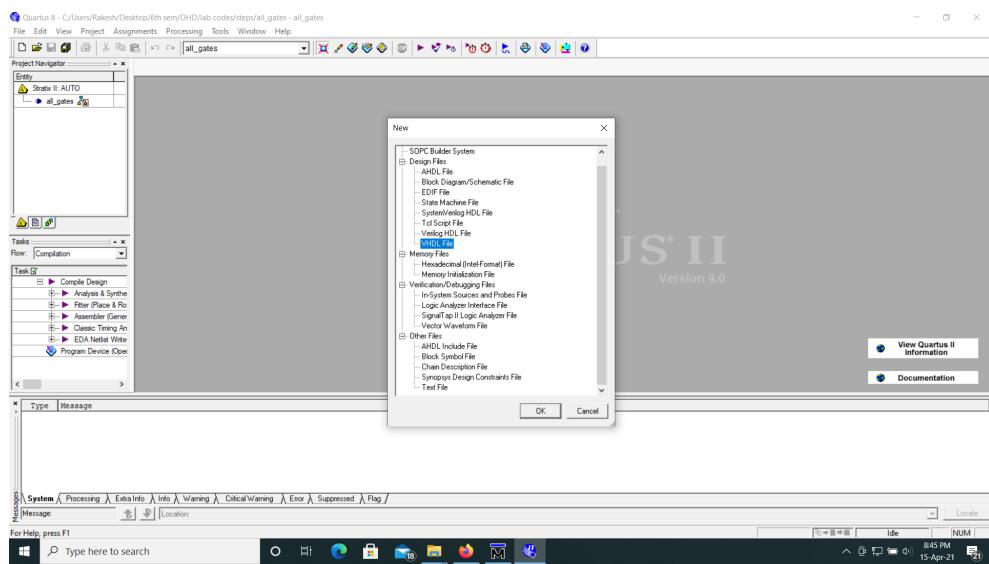


Figure 4: Step 4

5. Write the code in the file. Then go to the file and click on Save.

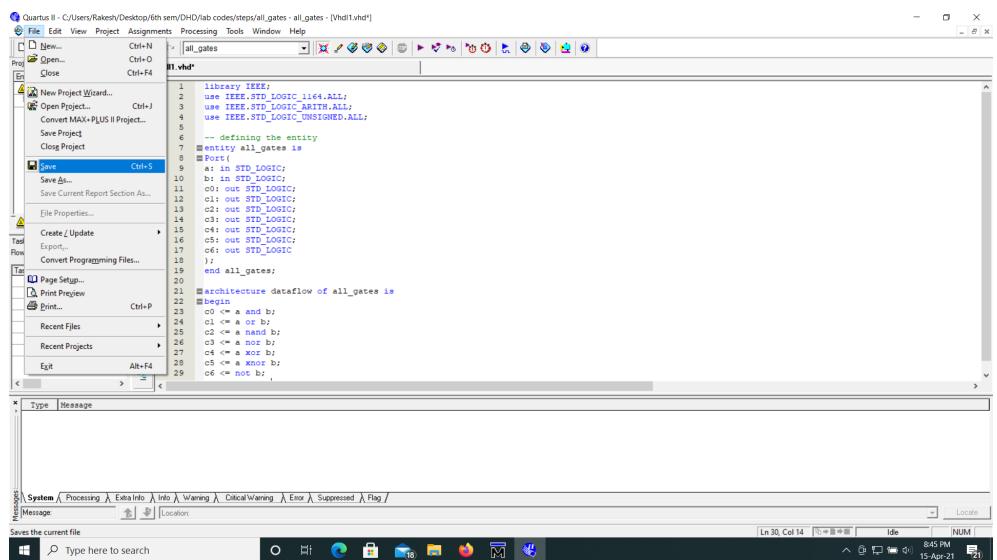


Figure 5: Step 5

6. Give entity name of code as name to the file and click on save.

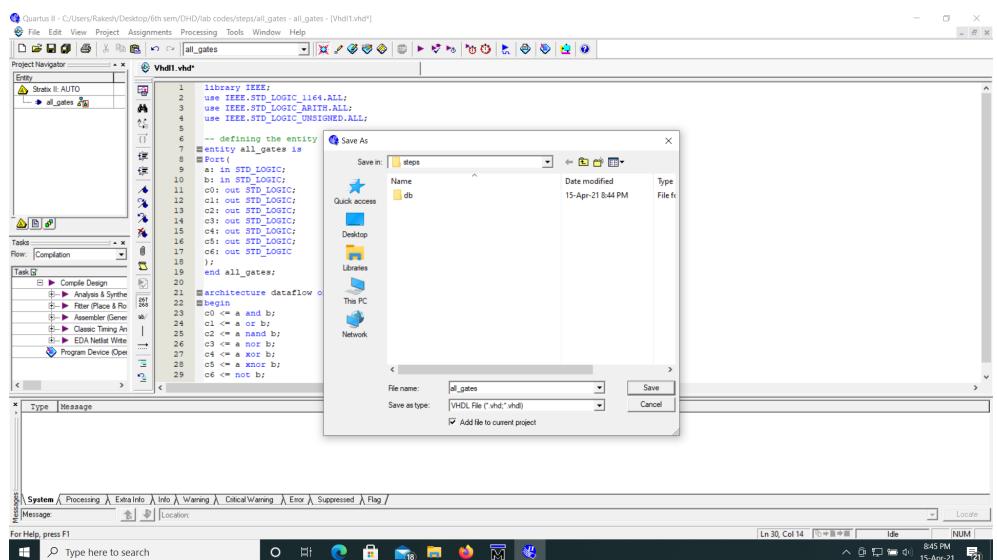


Figure 6: Step 6

7. Go to processing shown in fig 7 then go to start and start analysis and synthesis.

0.1

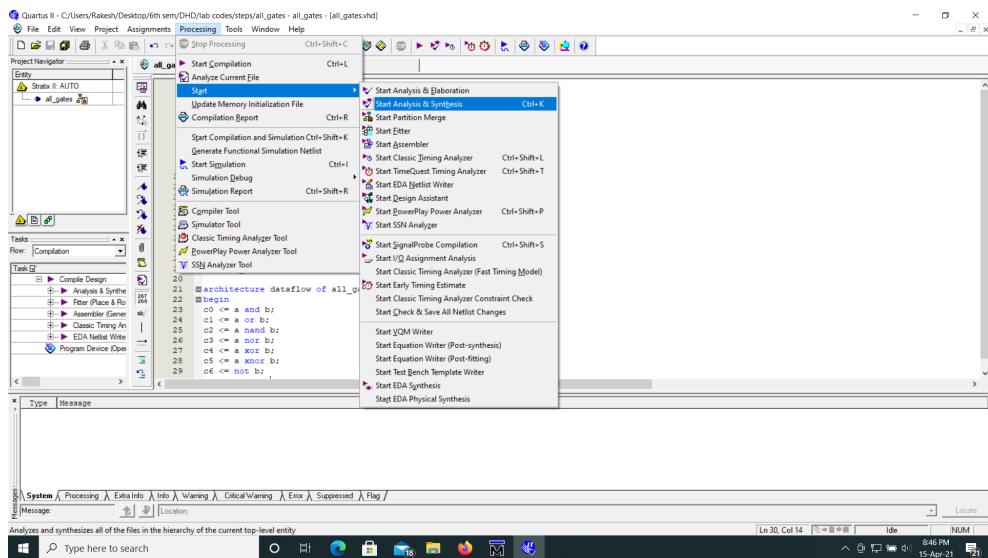


Figure 7: Step 7

8. After successfully compiling the code, a window will appear as shown in fig 8.
Click on OK

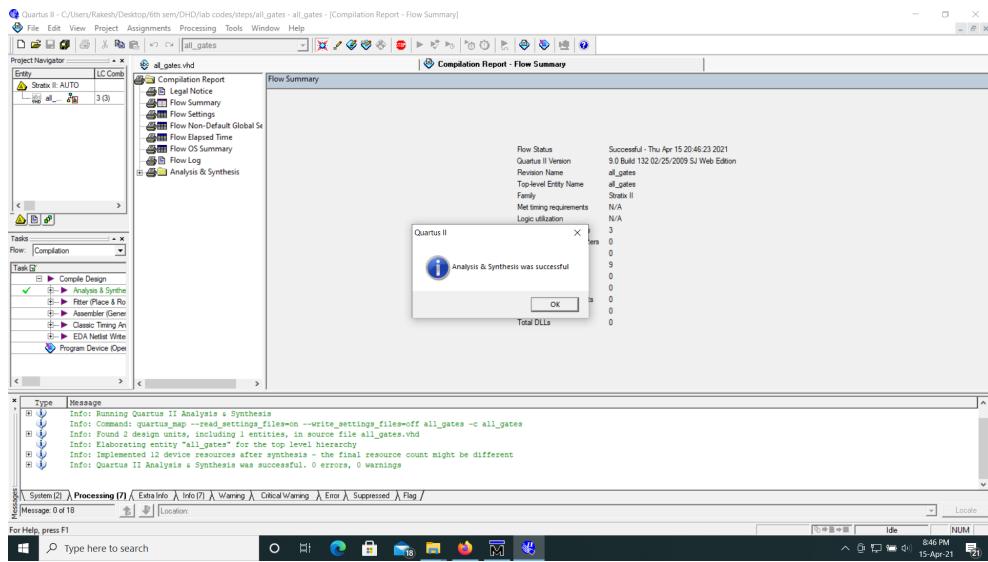


Figure 8: Step 8

9. Go to tool then netlist viewer then RTL viewer

0.1

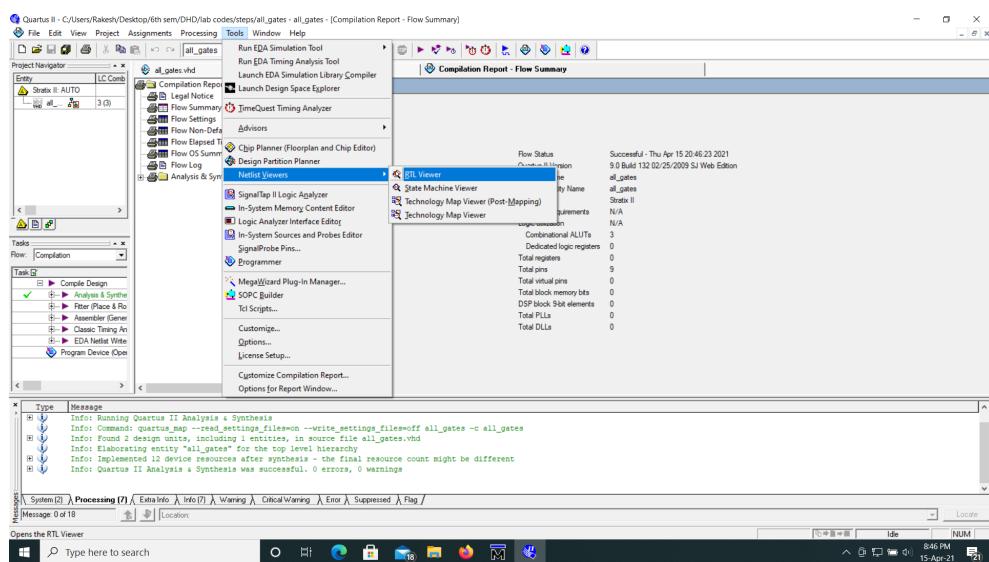


Figure 9: Step 9

10. Here you can see RTL view of circuit

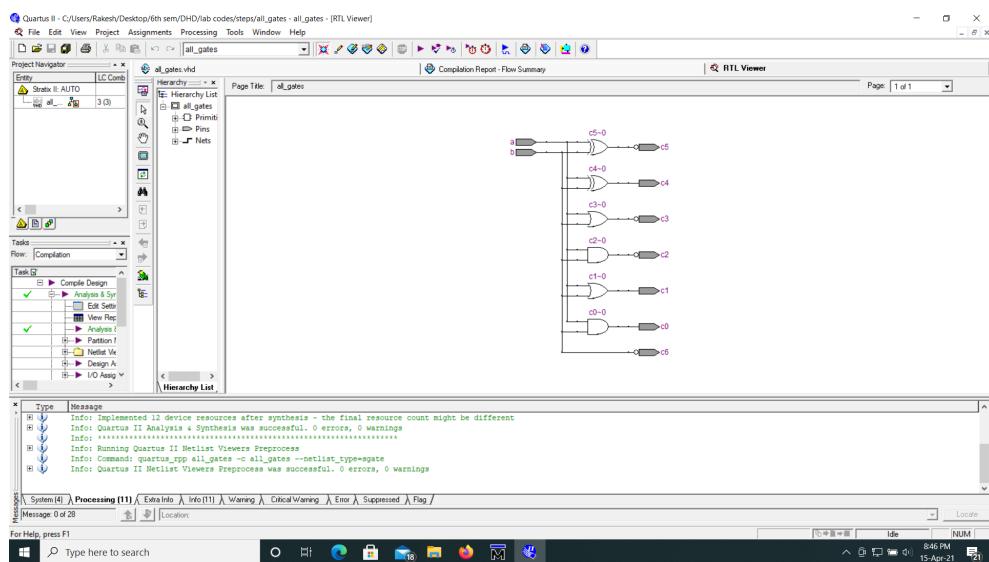


Figure 10: Step 10

11. create new VHDL file

0.1

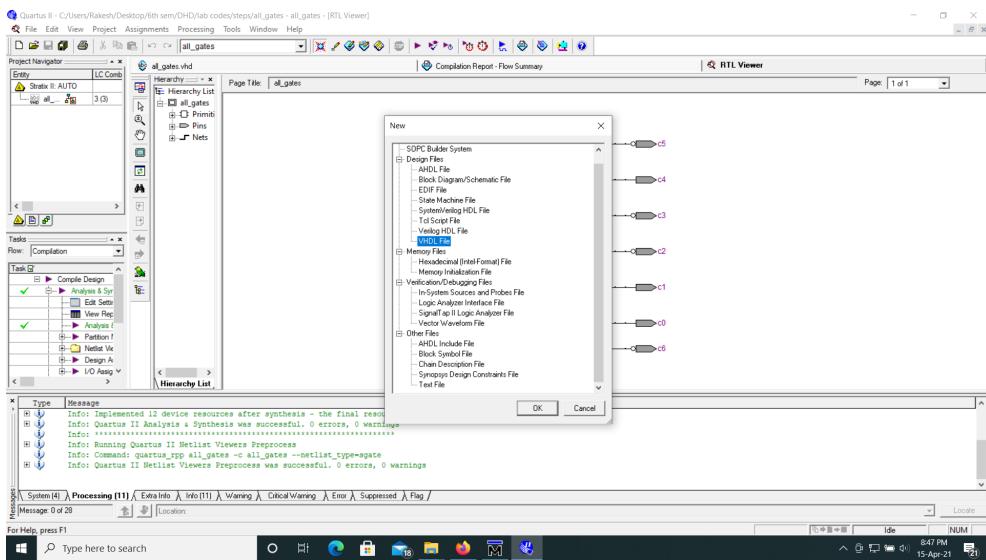


Figure 11: Step 11

12. Write code of testbench in it and save it

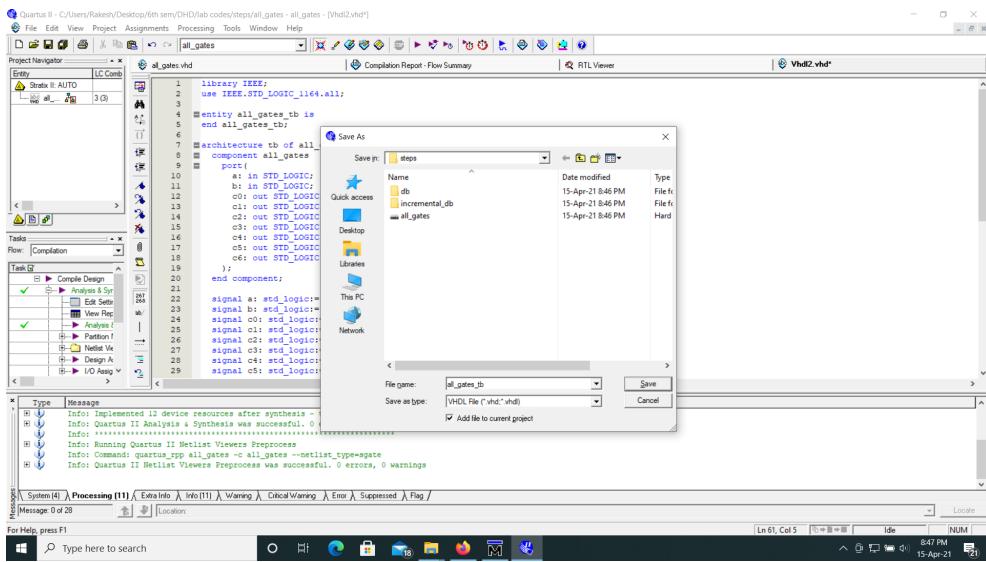


Figure 12: Step 12

13. Compile the testbench file

0.1

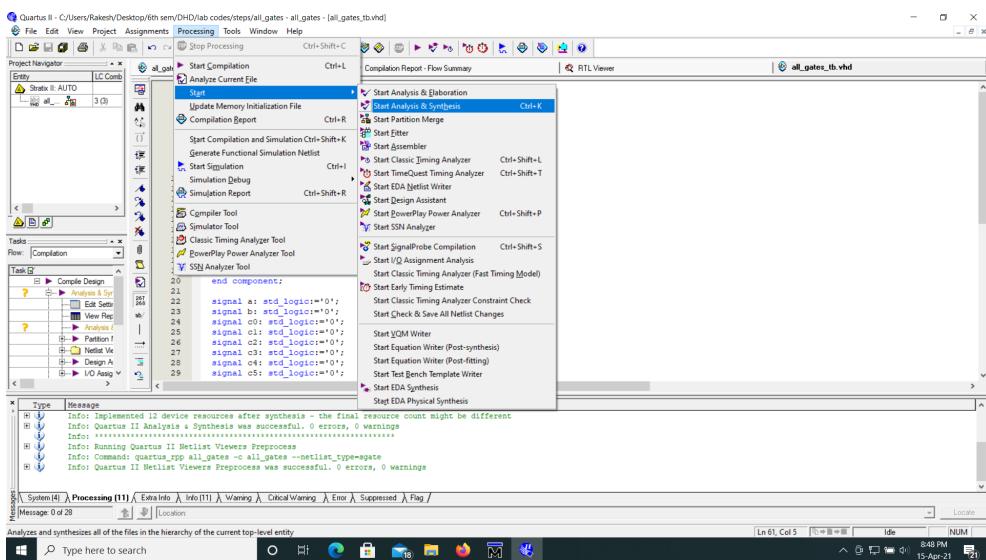


Figure 13: Step 13

14. Open the Modelsim Software. A window will appear as fig 14. Click on close

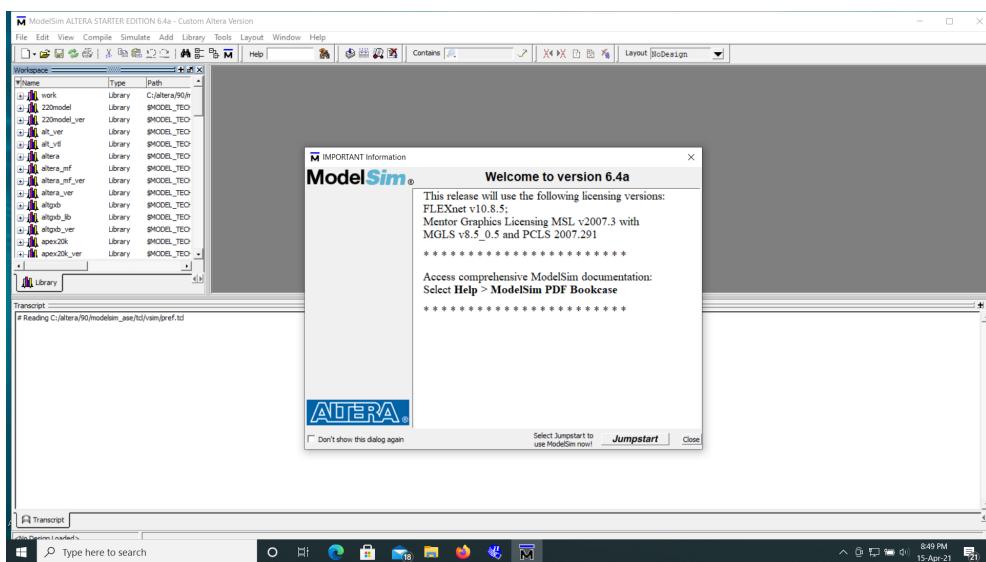


Figure 14: Step 14

15. go to file and open

0.1

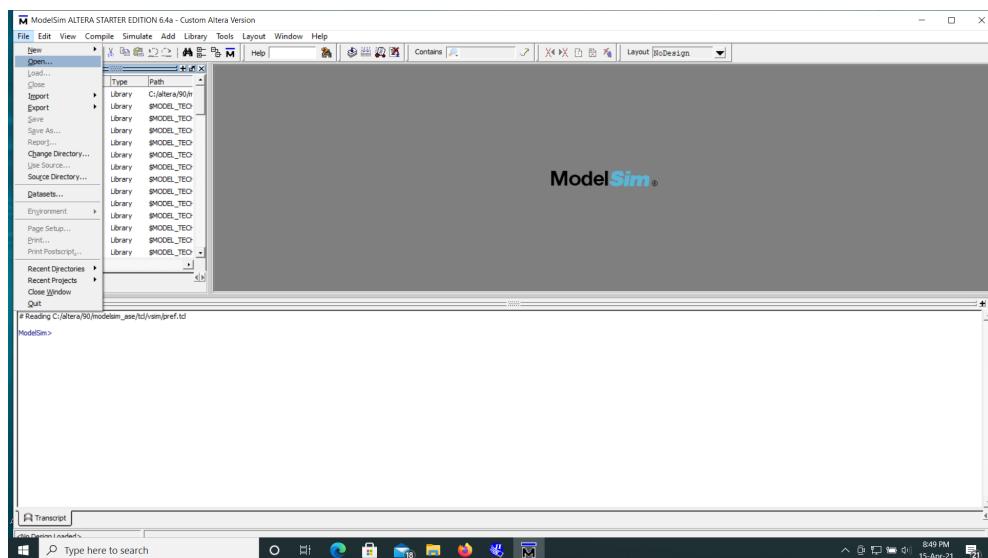


Figure 15: Step 15

16. Open the file you have created in Quartus

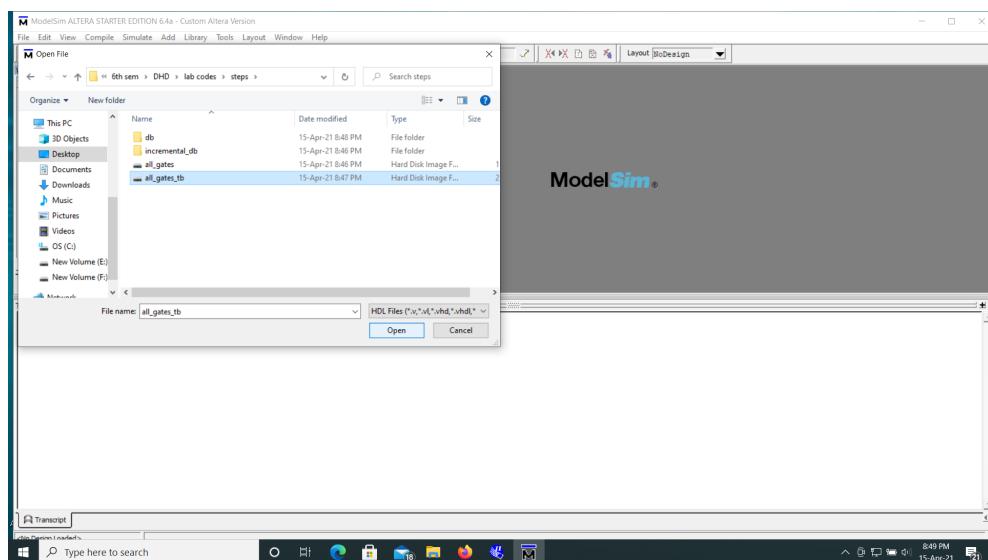


Figure 16: Step 16

17. Go to compile and click on compile

0.1

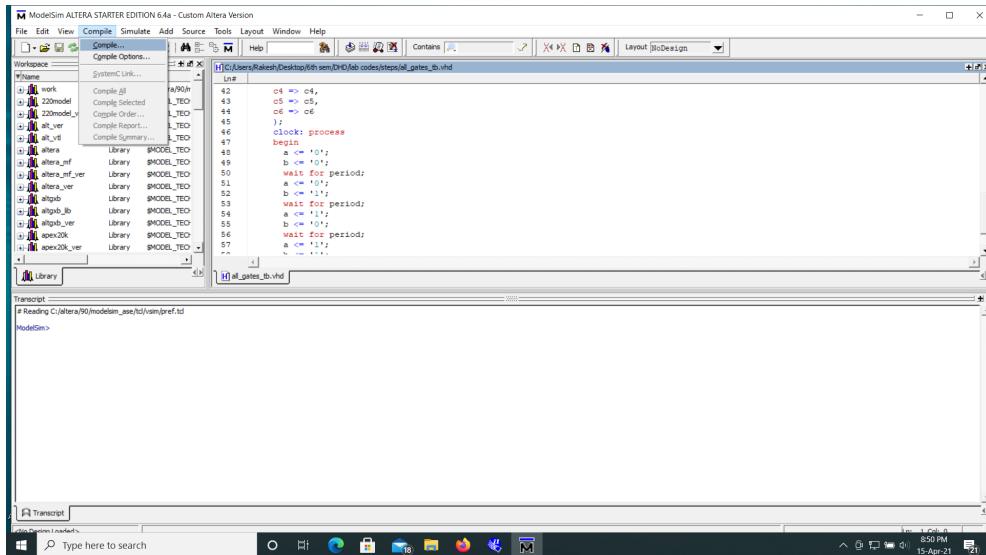


Figure 17: Step 17

18. Select both the main file and testbench file to compile.

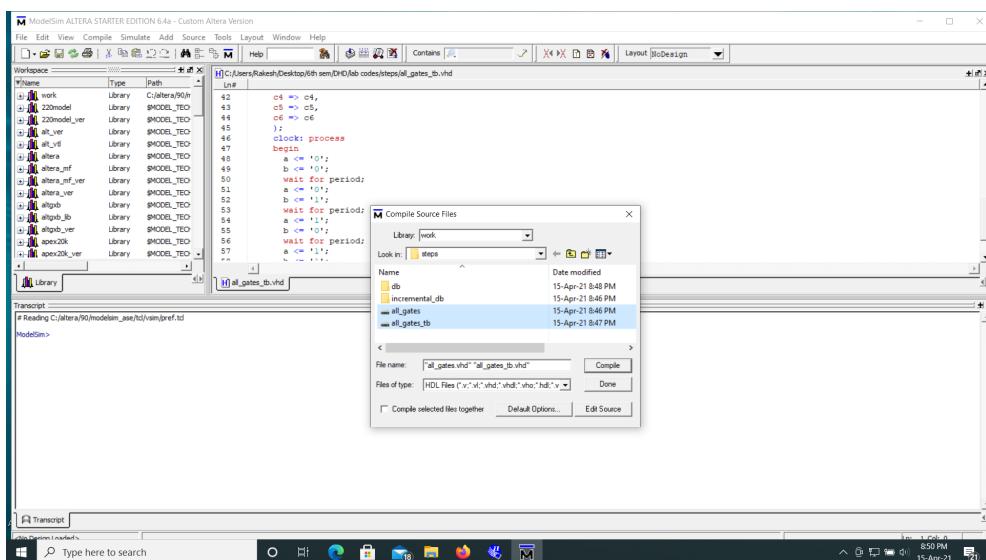


Figure 18: Step 17

19. From Simulation option in taskbar select start simulation option

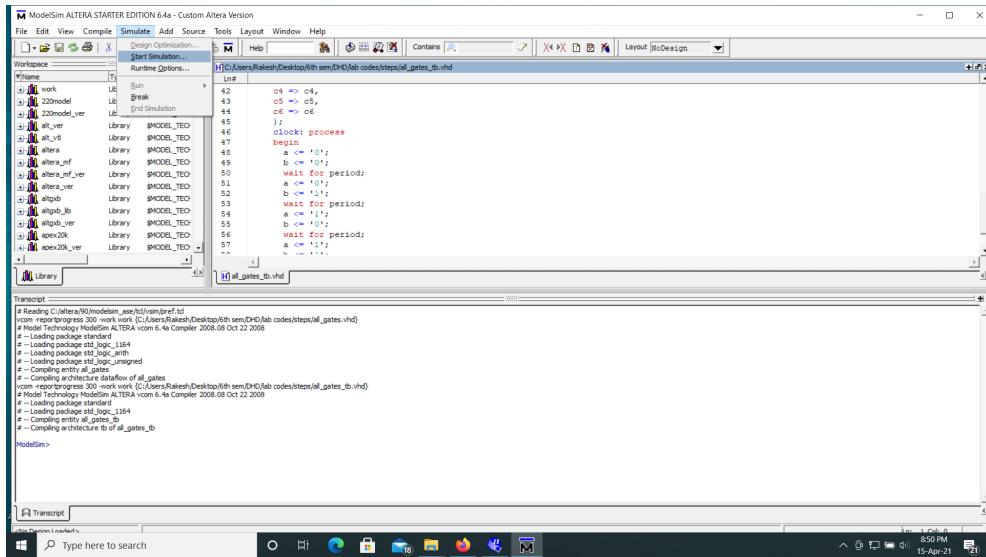


Figure 19: Step 18

20. Select the name of the file for simulation

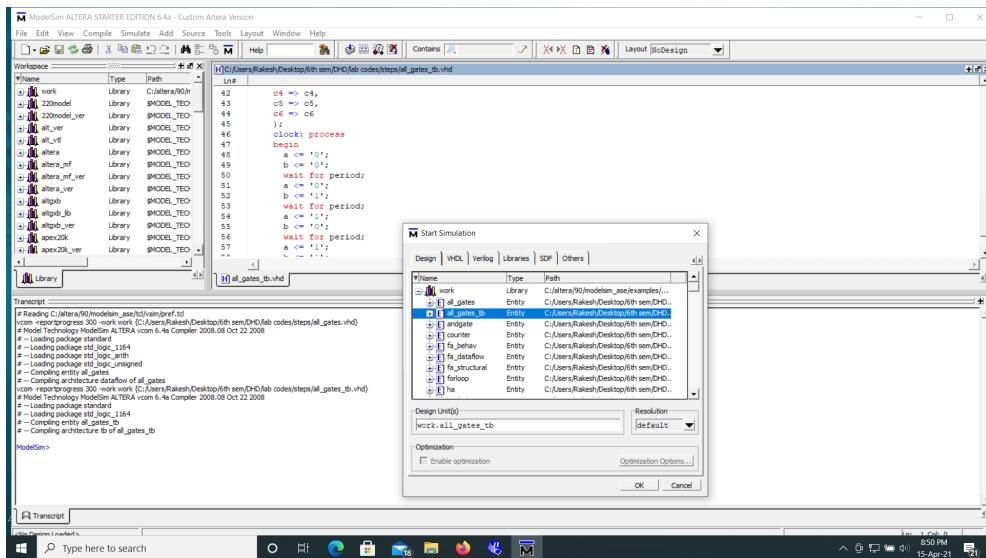


Figure 20: Step 19

21. Select option add to waveform and select all the item in region

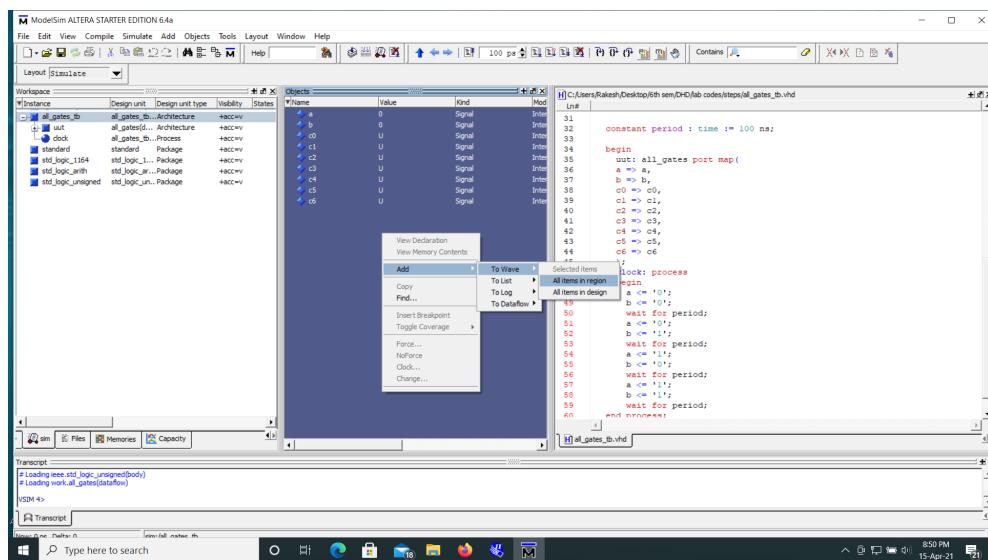


Figure 21: Step 20

22. You can observe the waveform by running the program for fixed time interval.

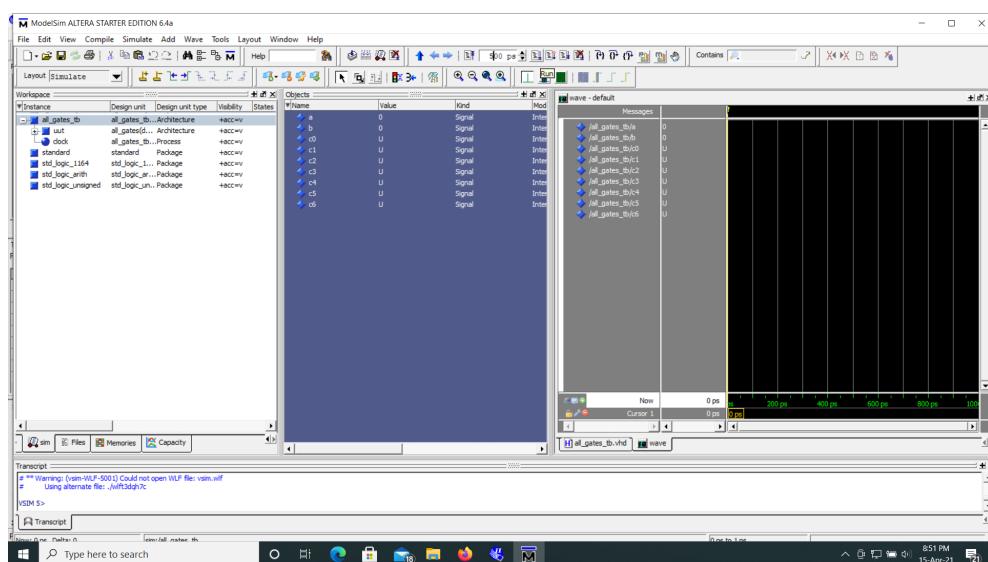


Figure 22: Step 21