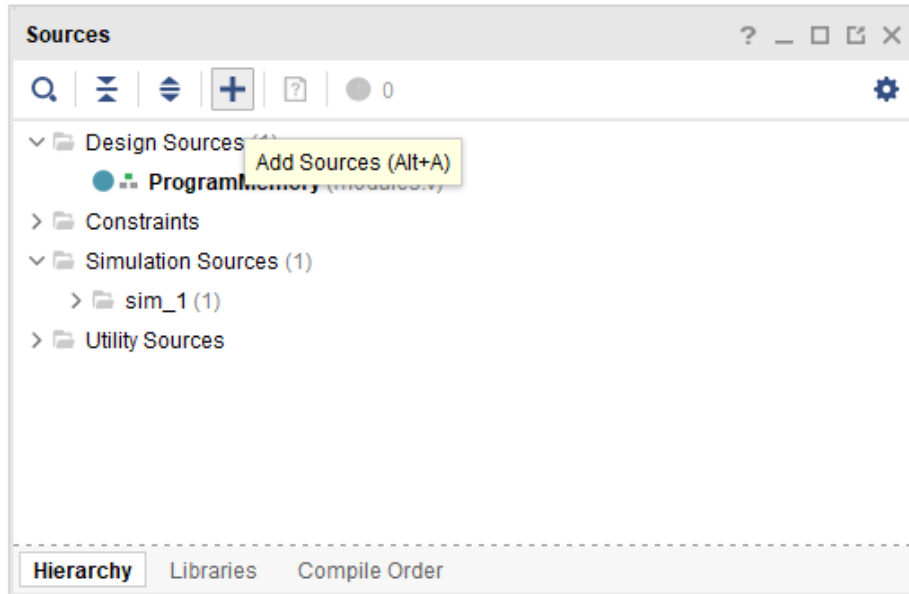
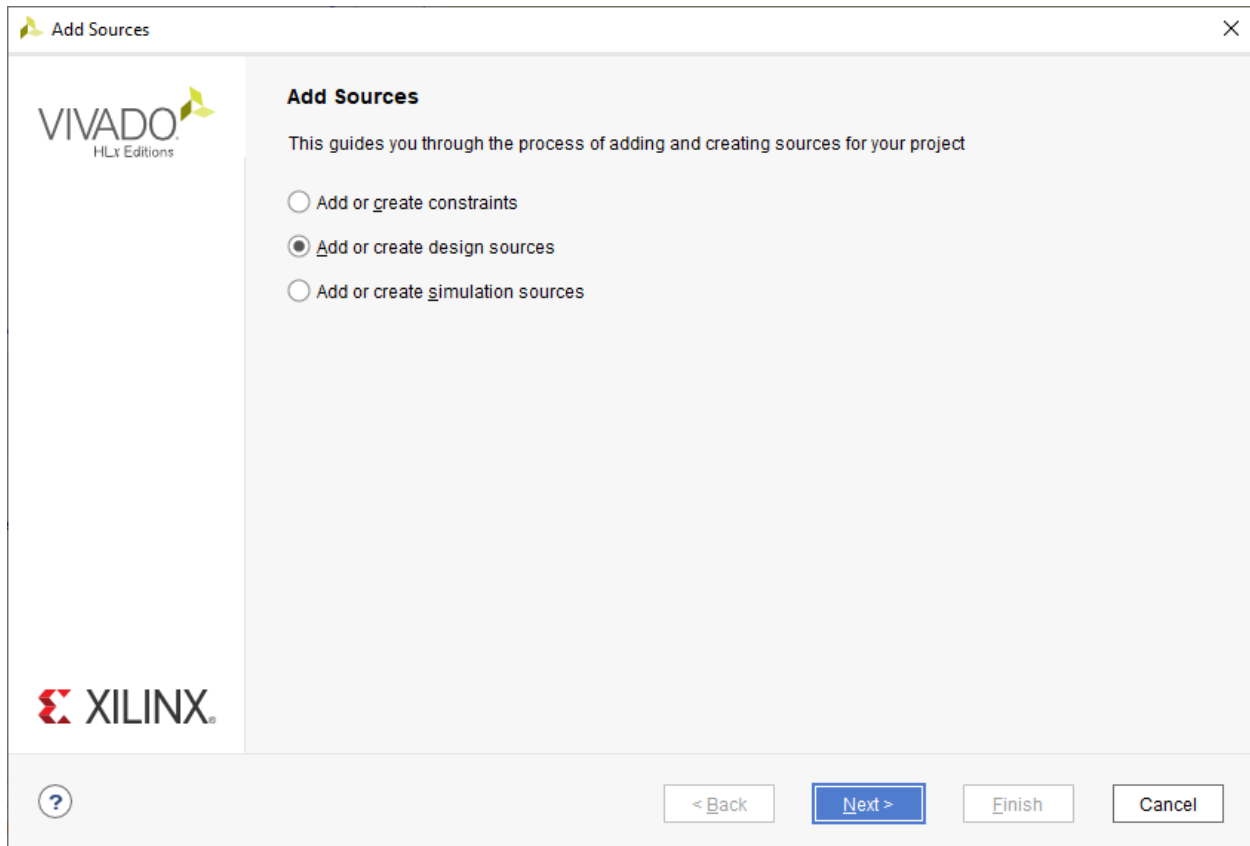


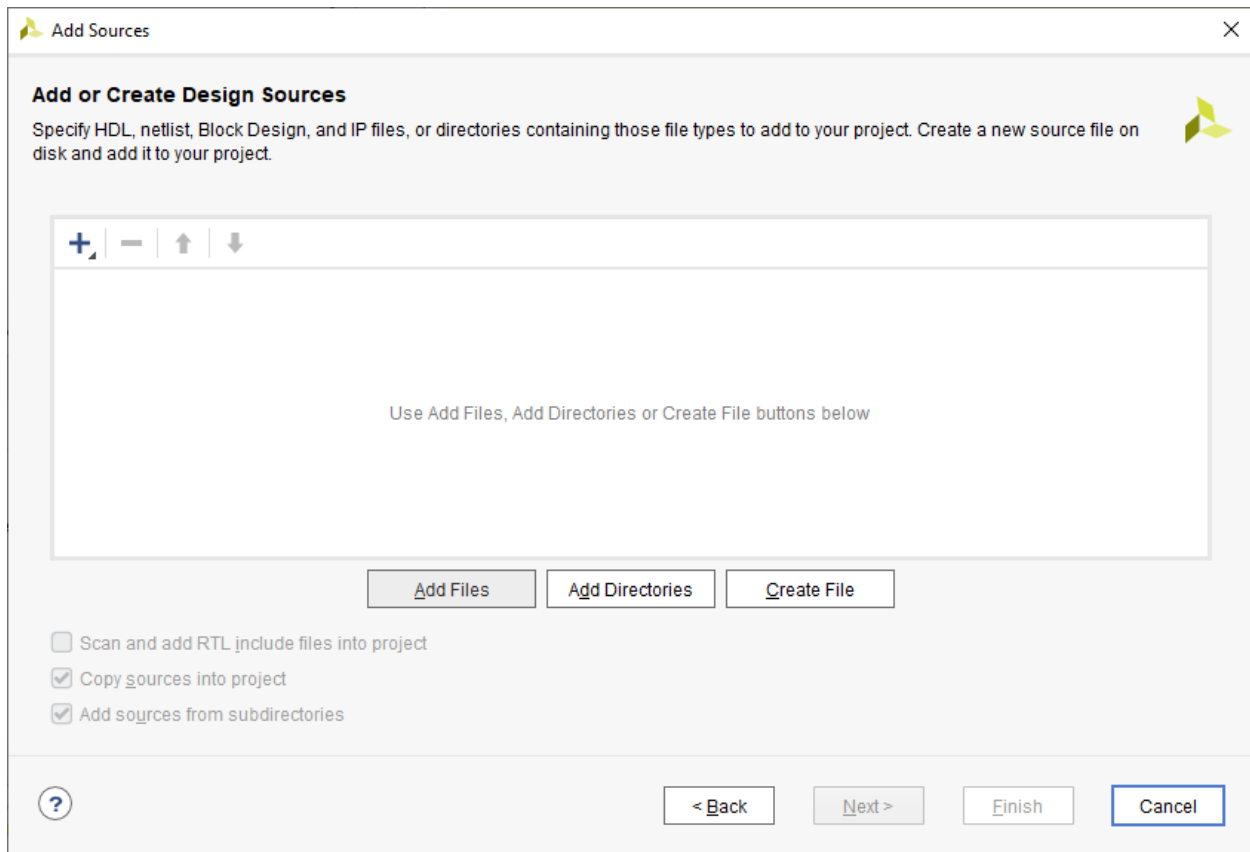
Click the Add Sources under Sources Tab.



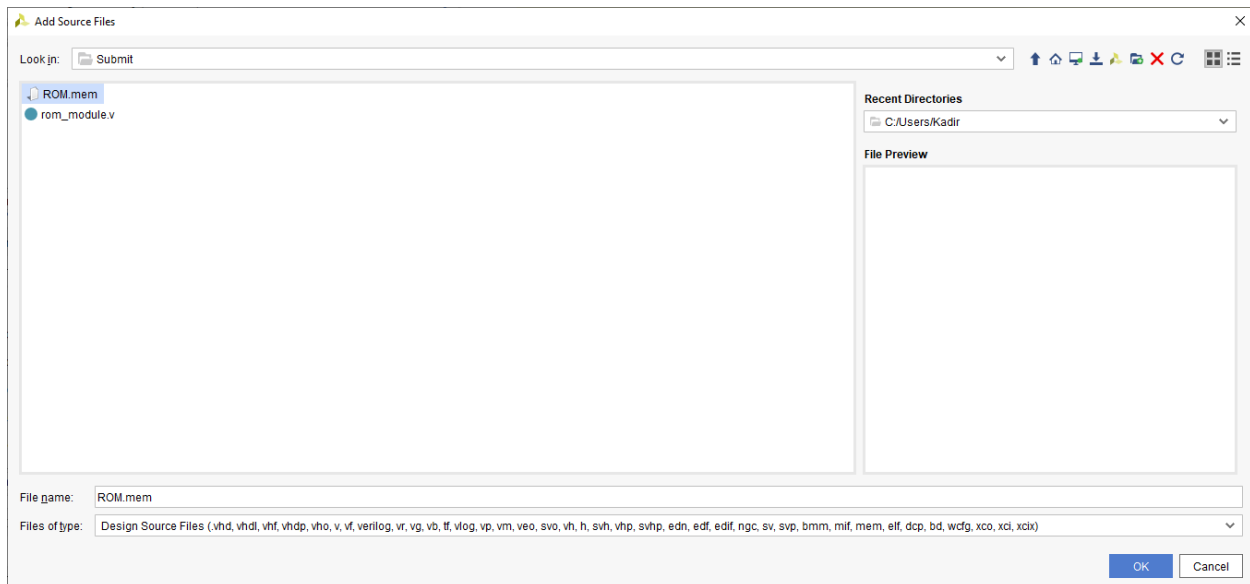
Select "Add or create design sources" then click the next button.



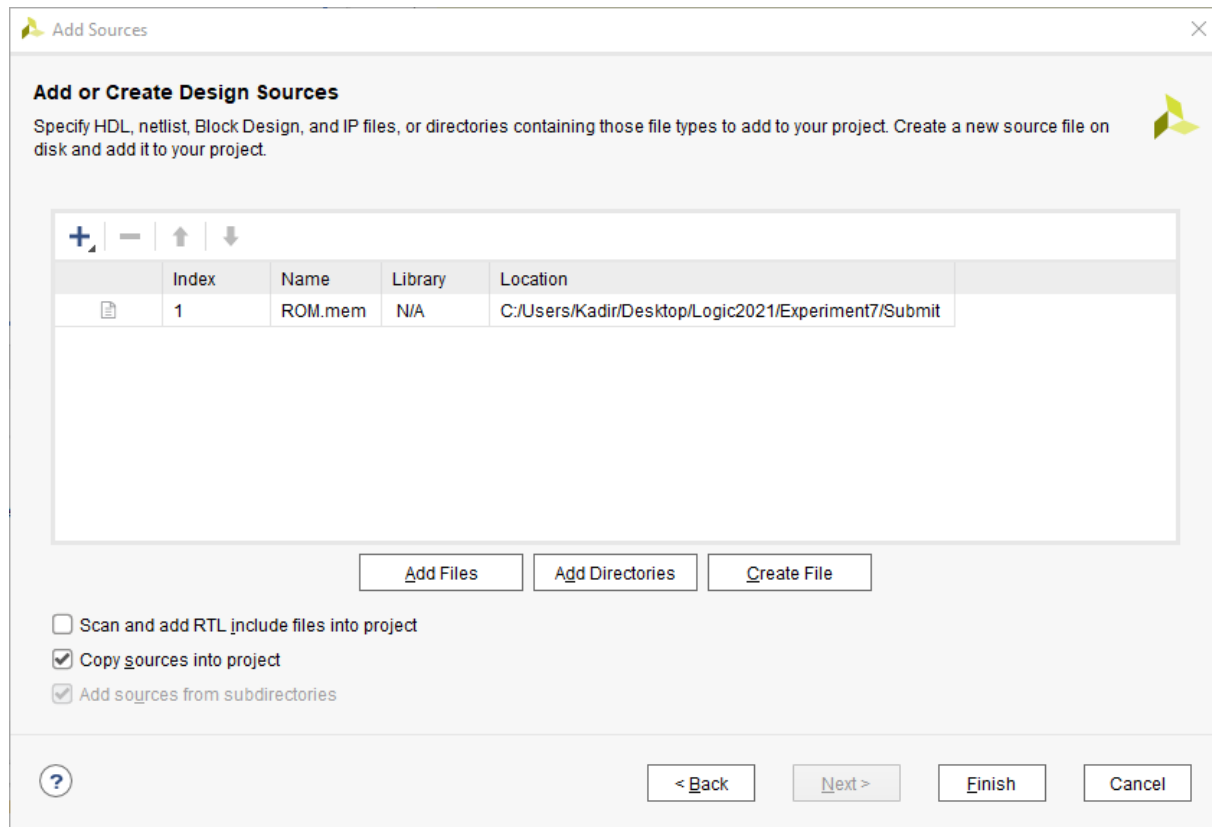
Click “Add Files” button.



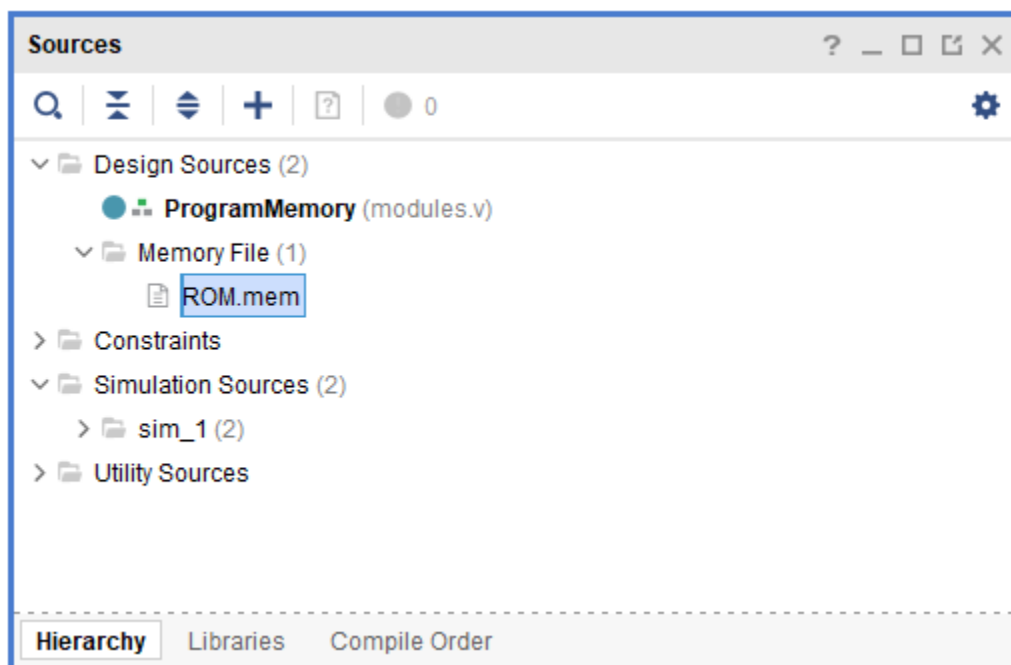
Select the ROM.mem file from File Explorer. Then click OK button.



Click Finish button to add file.



ROM file can be accessed under sources section.



Each line shows an instruction of system. For example, the first line is 7215, 7 -> Load Operation, 2 destination address, 0x15 immediate value. After the execution of first line, 0x15 will stored to second register (0-indexed).

```
1 | 7215
2 | 7325
3 | 7444
4 | 7543
5 | 0624
6 | 1724
7 | A823
8 | C123
9 | B123
10 | C123
11 | D144
12 |
```

After that, you must include ProgramMemory module.

```
23 | module ProgramMemory(
24 |     input wire[7:0] address,
25 |     output reg[15:0] instruction
26 | );
27 |     //Declaration of the ROM area
28 |     reg [15:0] ROM_Data [0:255];
29 |     //Read ROM data from the file
30 |     initial $readmemh("ROM.mem", ROM_Data);
31 |     //Read the selected data from ROM
32 |     always @(*) begin
33 |         instruction <= ROM_Data[address];
34 |     end
35 | endmodule
```

You can access your ROM using this module.

