

Ujian Tengah Semester

System on Chip EL6109

Asep Trisna Setiawan

23221111

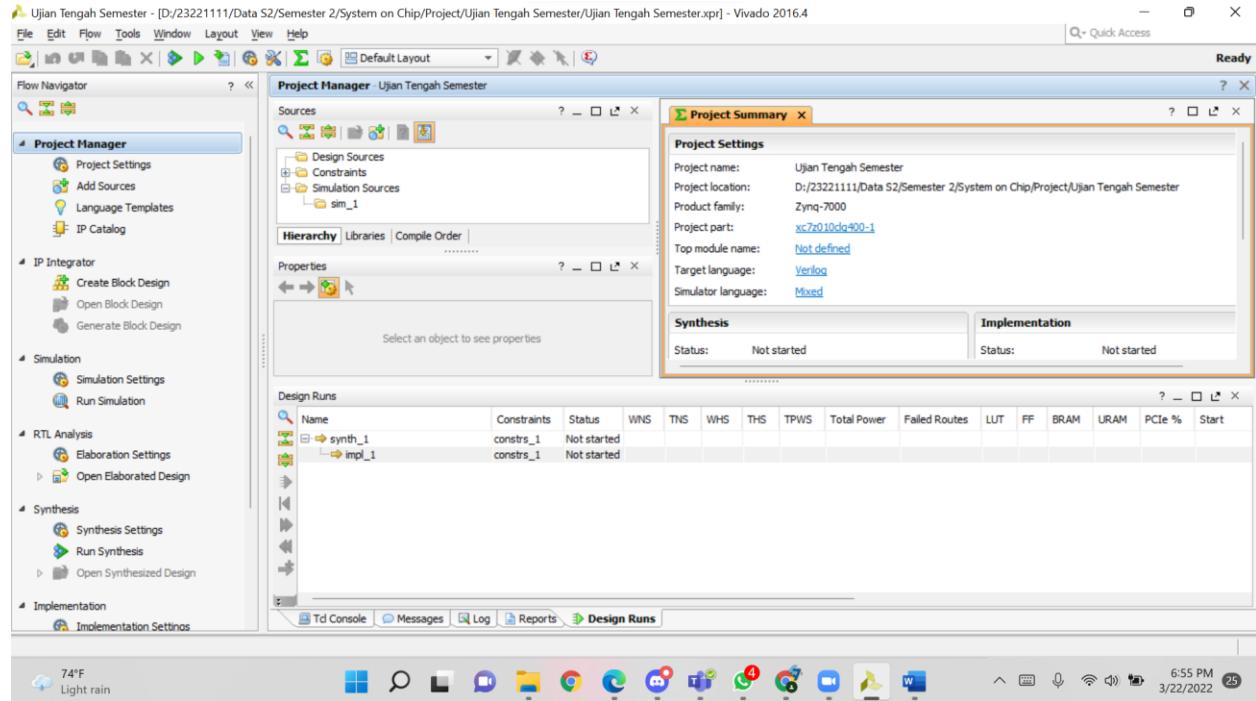


Magister Teknik Elektro

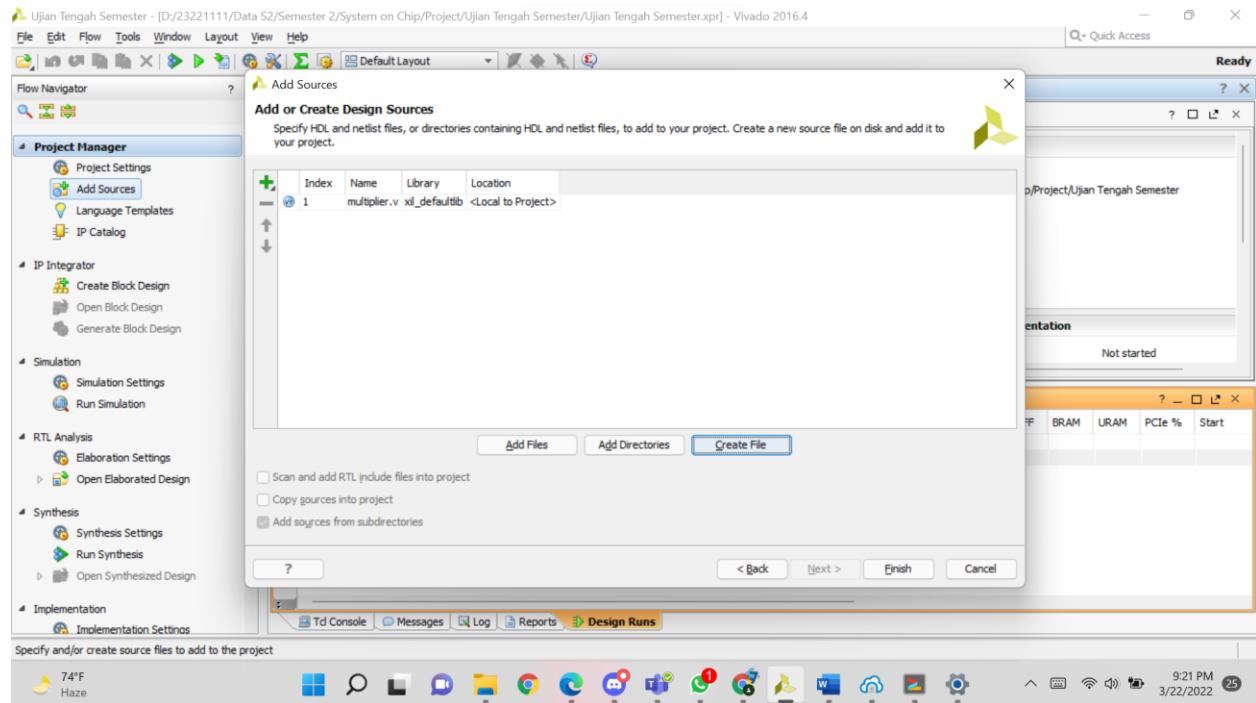
Institut Teknologi Bandung

2022

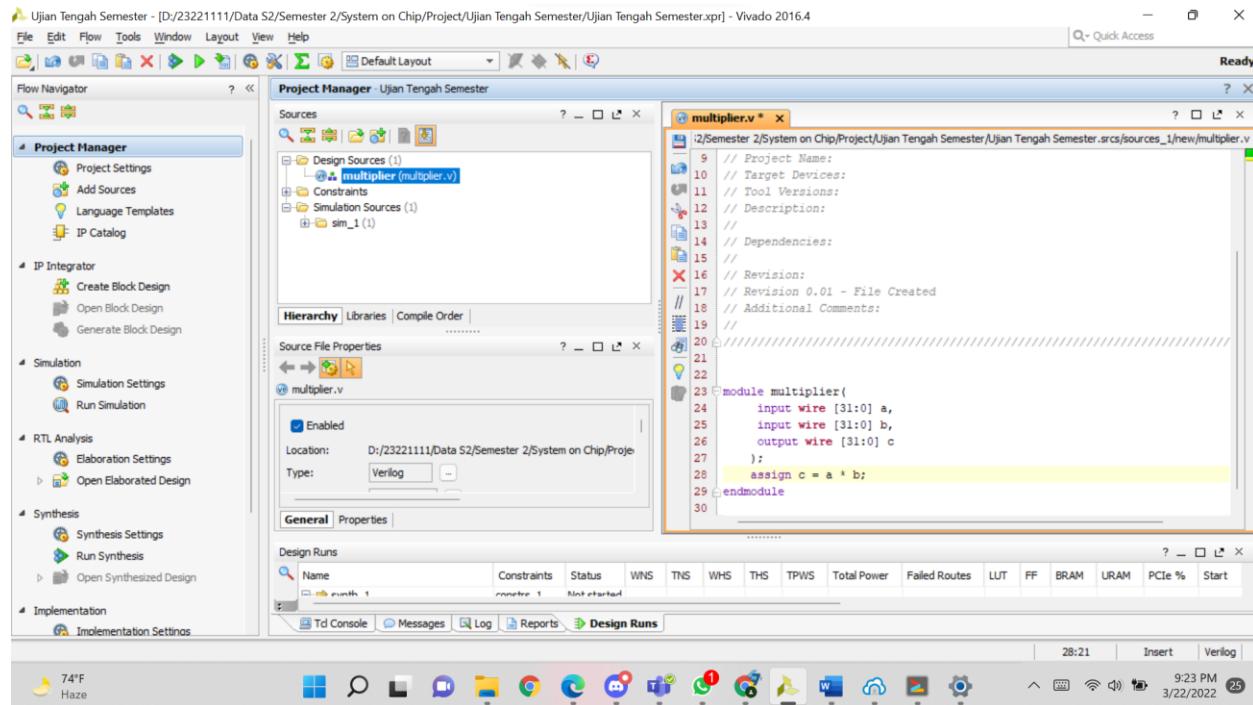
I. Buat Project Baru



II. Buat Source Baru dengan nama *multiplier.v*



Source code multiplier.v.



```
module multiplier(  
    input wire [31:0] a,  
    input wire [31:0] b,  
    output wire [31:0] c  
);  
    assign c = a * b;  
endmodule
```

III. Buat Source Code Verilog axi_lite.v

Jalan Tengah Semester - [D:/23221111/Data S2/Semester 2/System on Chip/Project/Ujian Tengah Semester/Ujian Tengah Semester.xpr] - Vivado 2016.4

```

// Design Name:
// Module Name: axi_lite
// Project Name:
// Target Devices:
// Tool Versions:
// Description:
// Dependencies:
// Revision:
// Revision 0.01 - File Created
// Additional Comments:
//
module axi_lite(
);
endmodule

```

Jalan Tengah Semester - [D:/23221111/Data S2/Semester 2/System on Chip/Project/Ujian Tengah Semester/Ujian Tengah Semester.xpr] - Vivado 2016.4

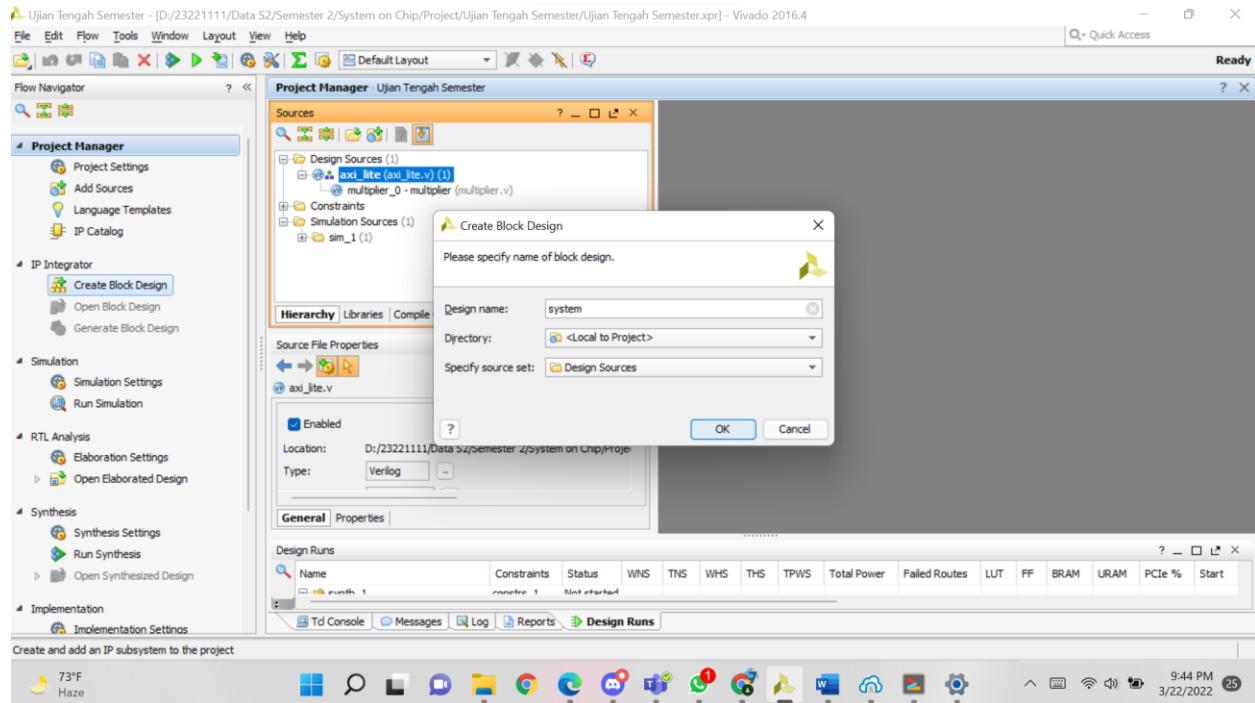
```

module axi_lite(
    // Clock and reset signals
    input wire ack,
    input wire aresetn,
    // AXI4-lite slave signals
    output wire s_axi_awready,
    input wire [31:0] s_axi_awaddr,
    input wire s_axi_awvalid,
    // Write data signals
    output wire s_axi_wready,
    input wire [31:0] s_axi_wdata,
    input wire [3:0] s_axi_wstrb,
    input wire s_axi_wvalid,
    // Write response signals
    input wire s_axi_bready,
    output wire [1:0] s_axi_bresp,
    output wire s_axi_bvalid,
    // Read address signals
);

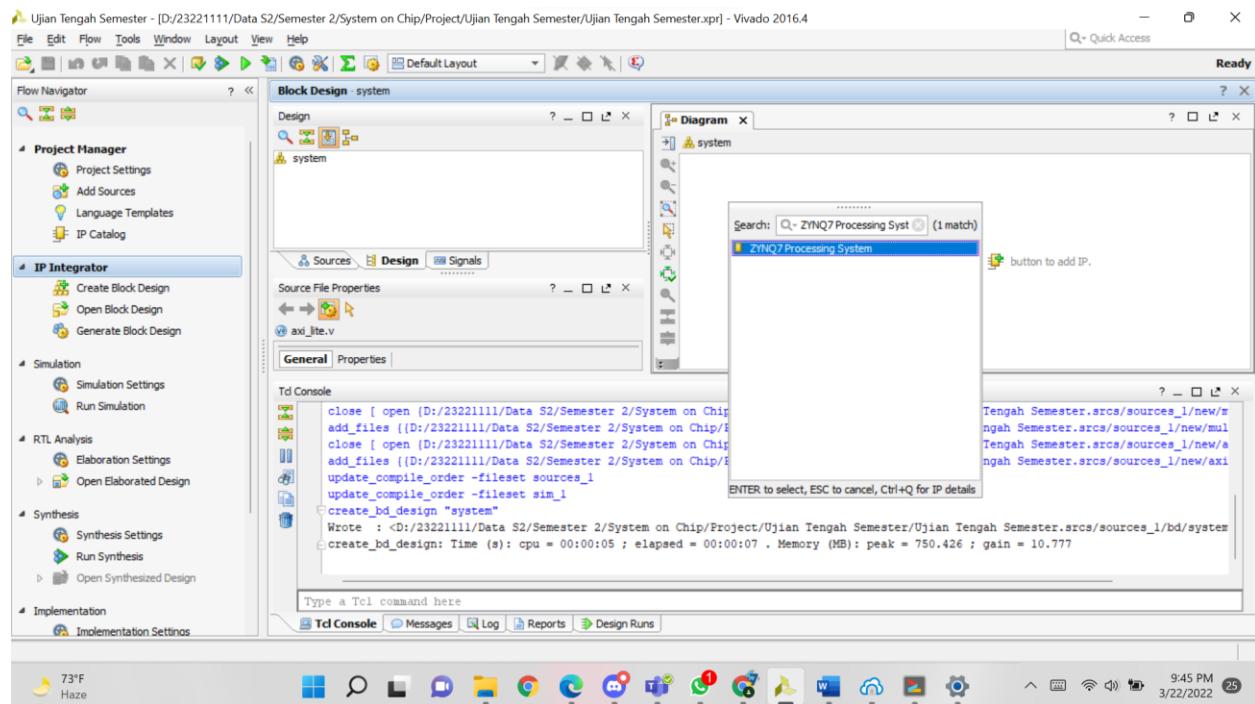
```

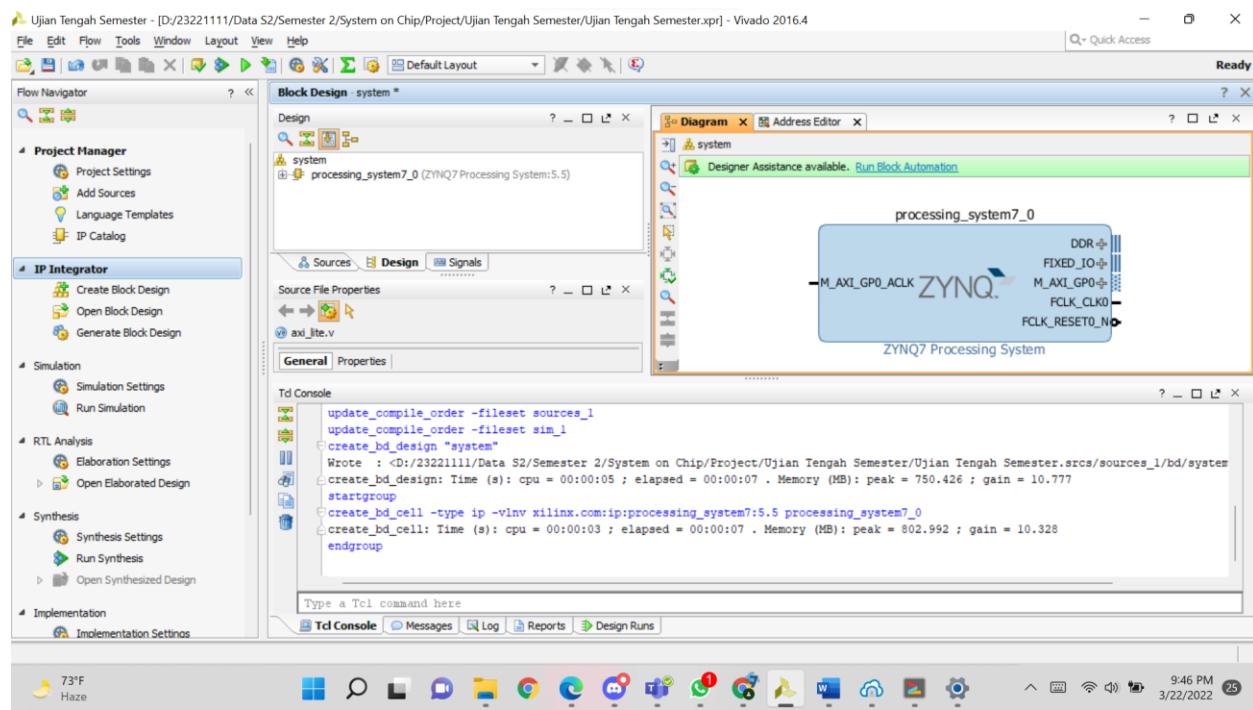
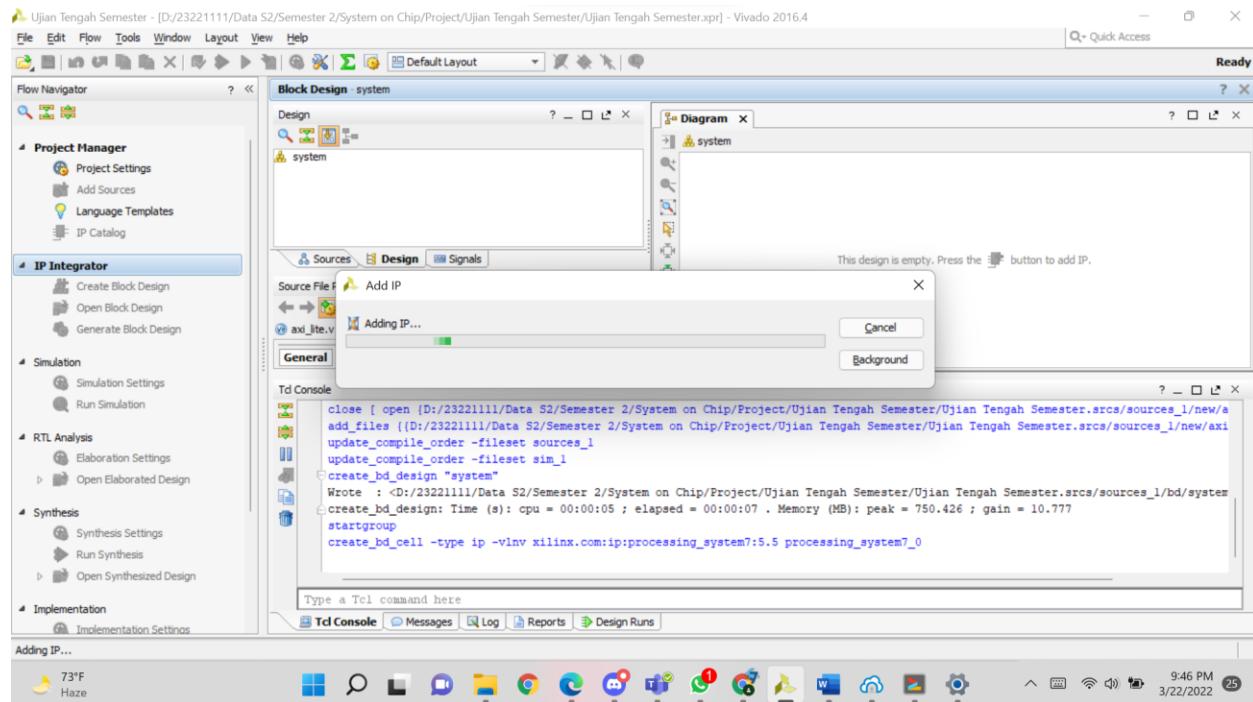
IV. Mengaktifkan UART1

Create block design

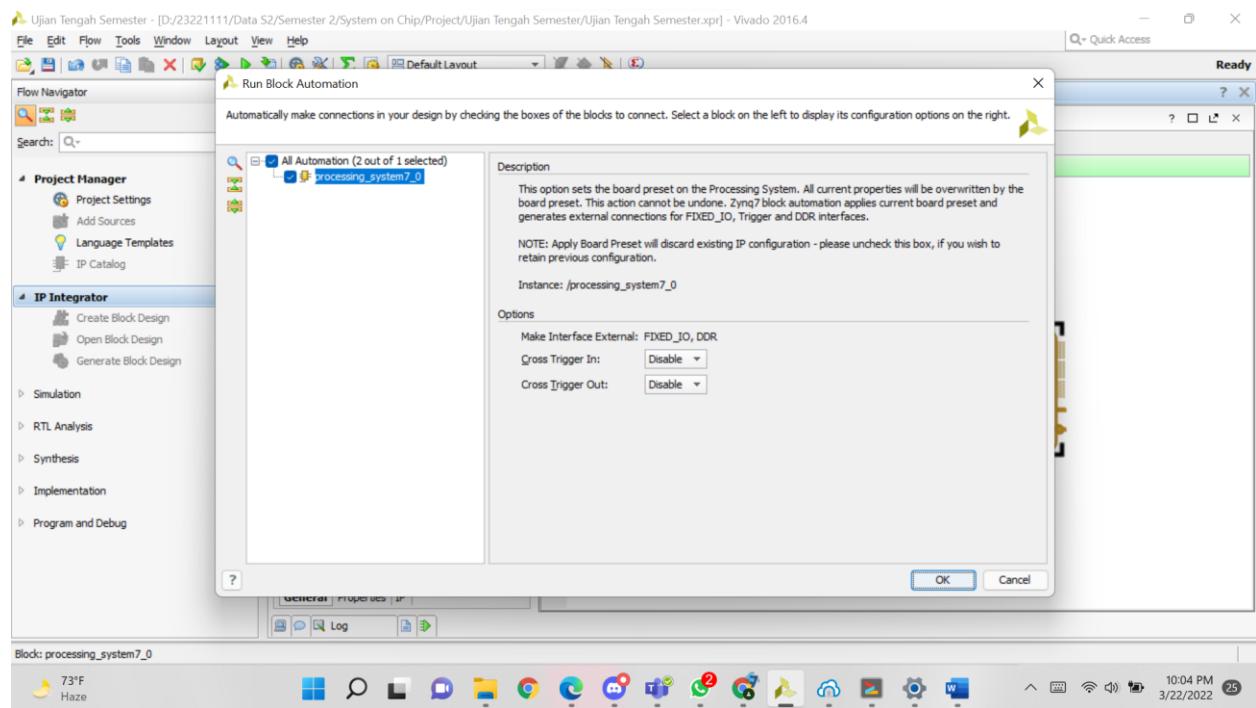
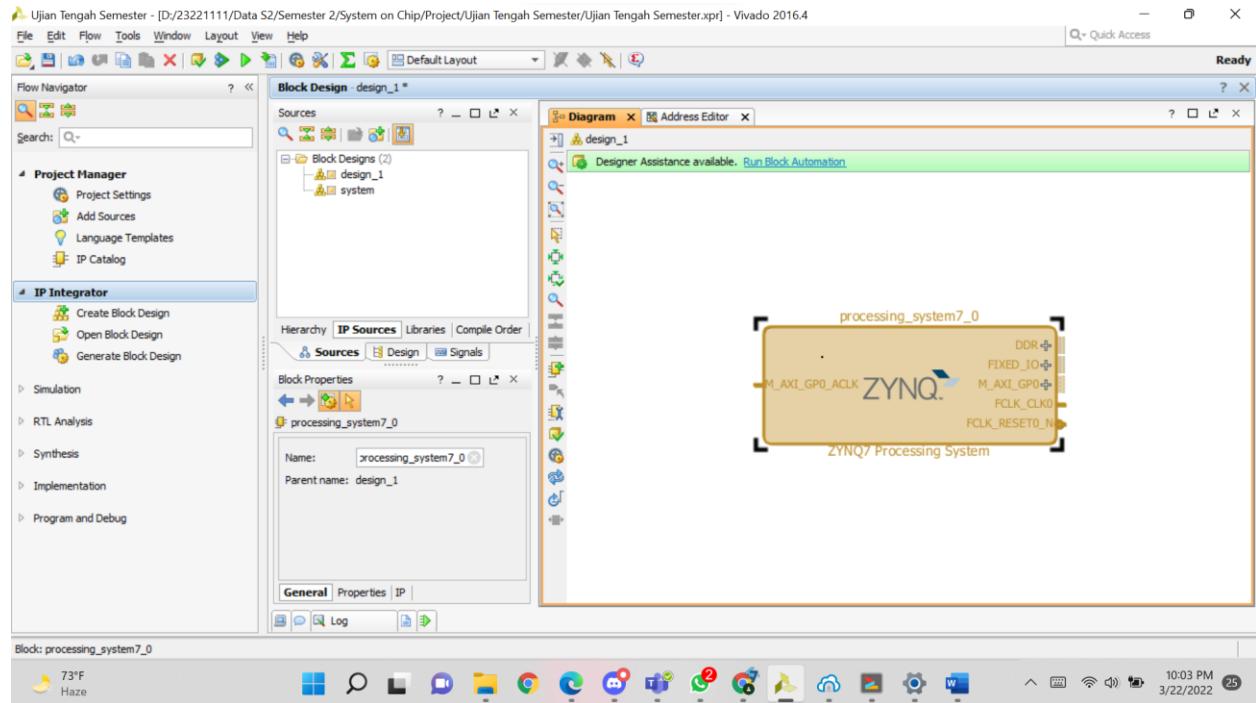


Add IP

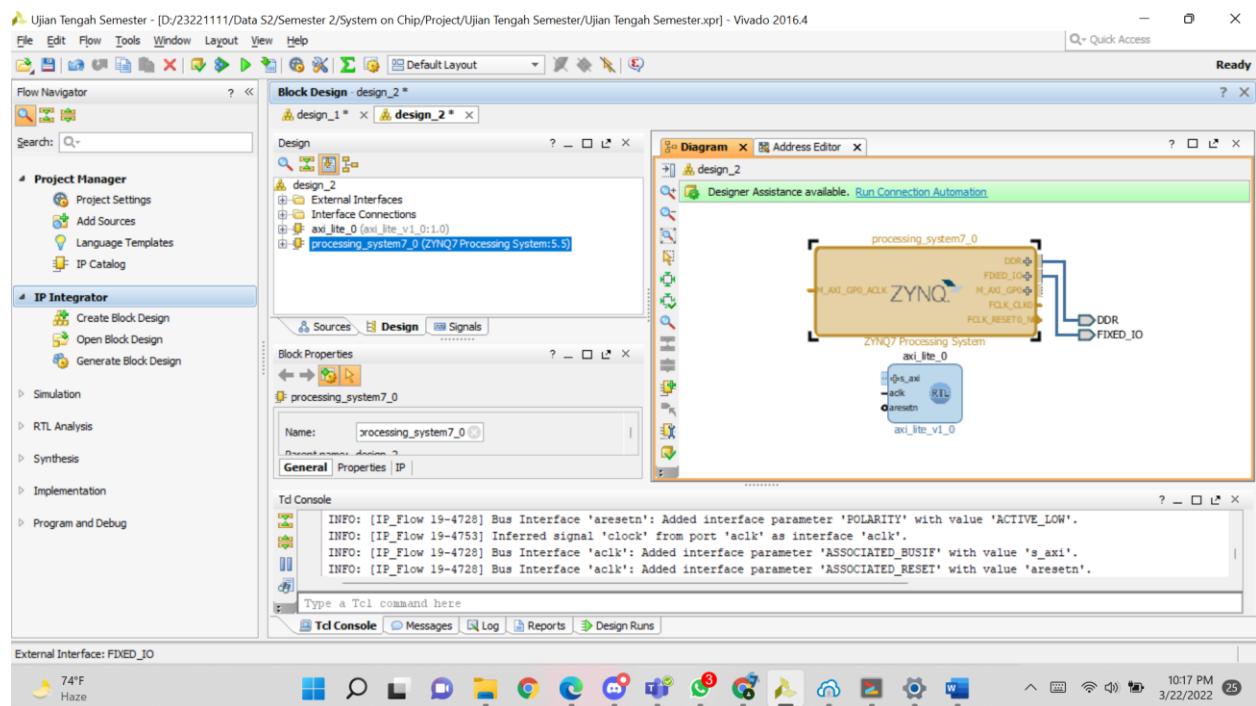
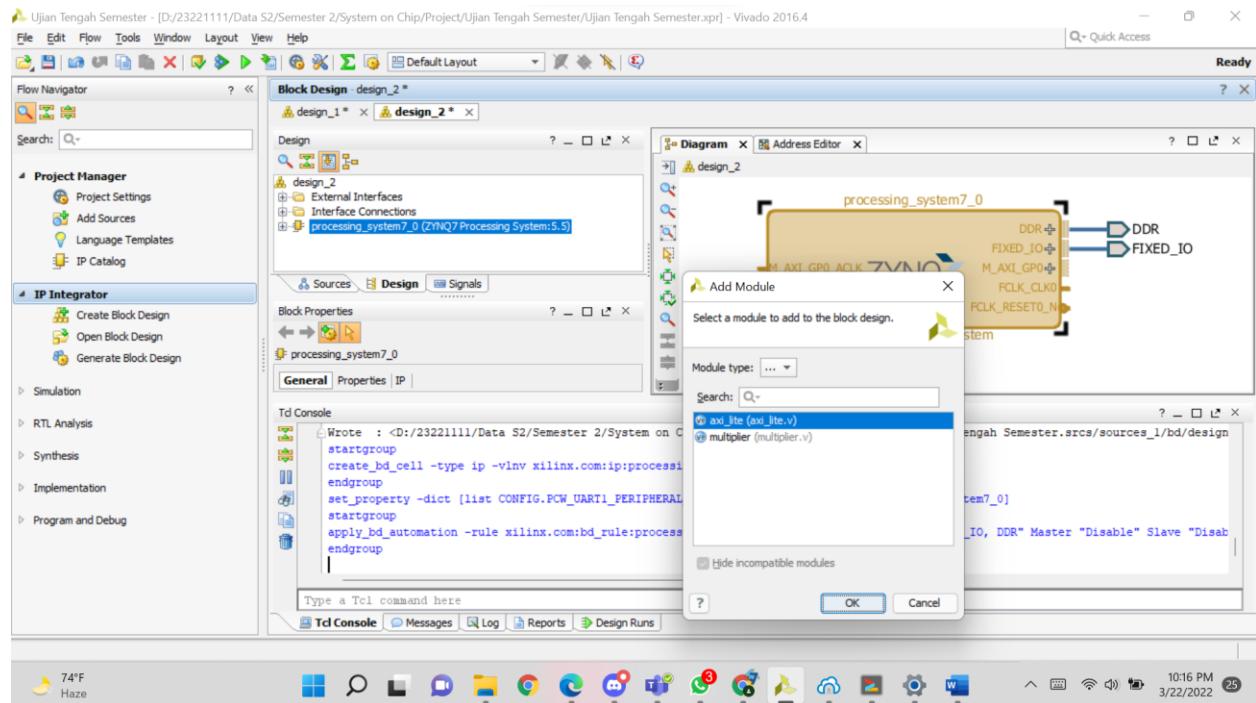




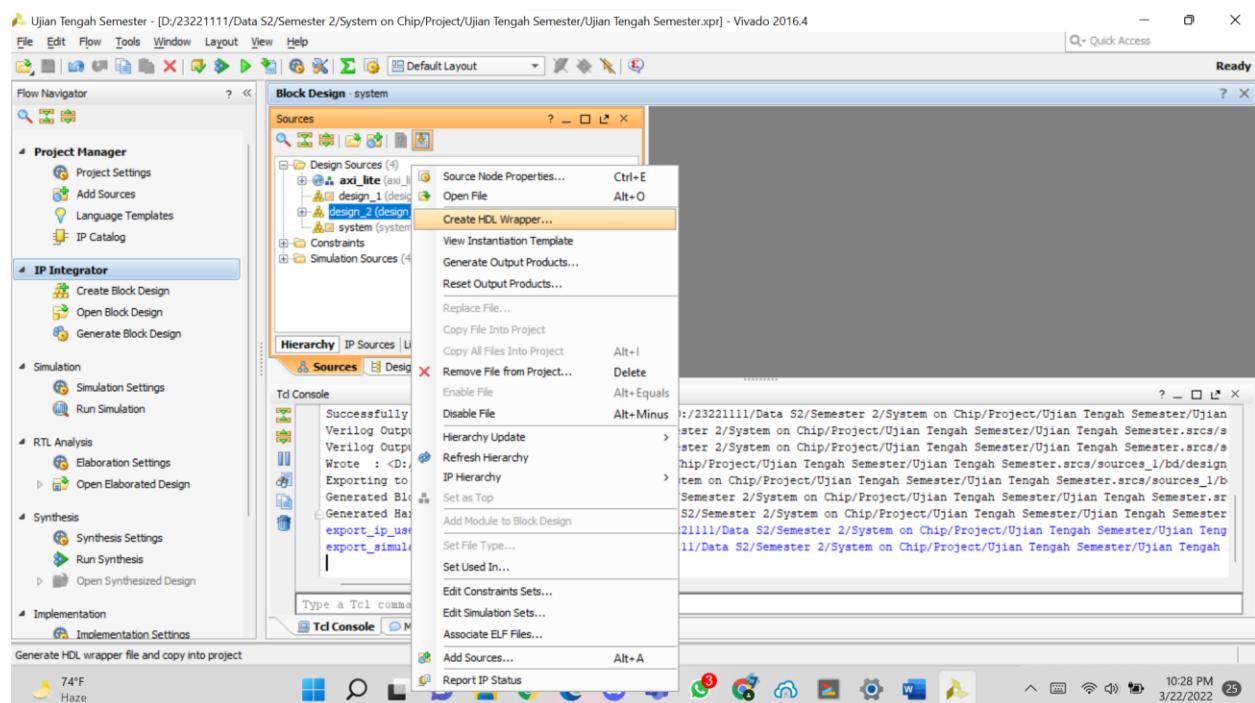
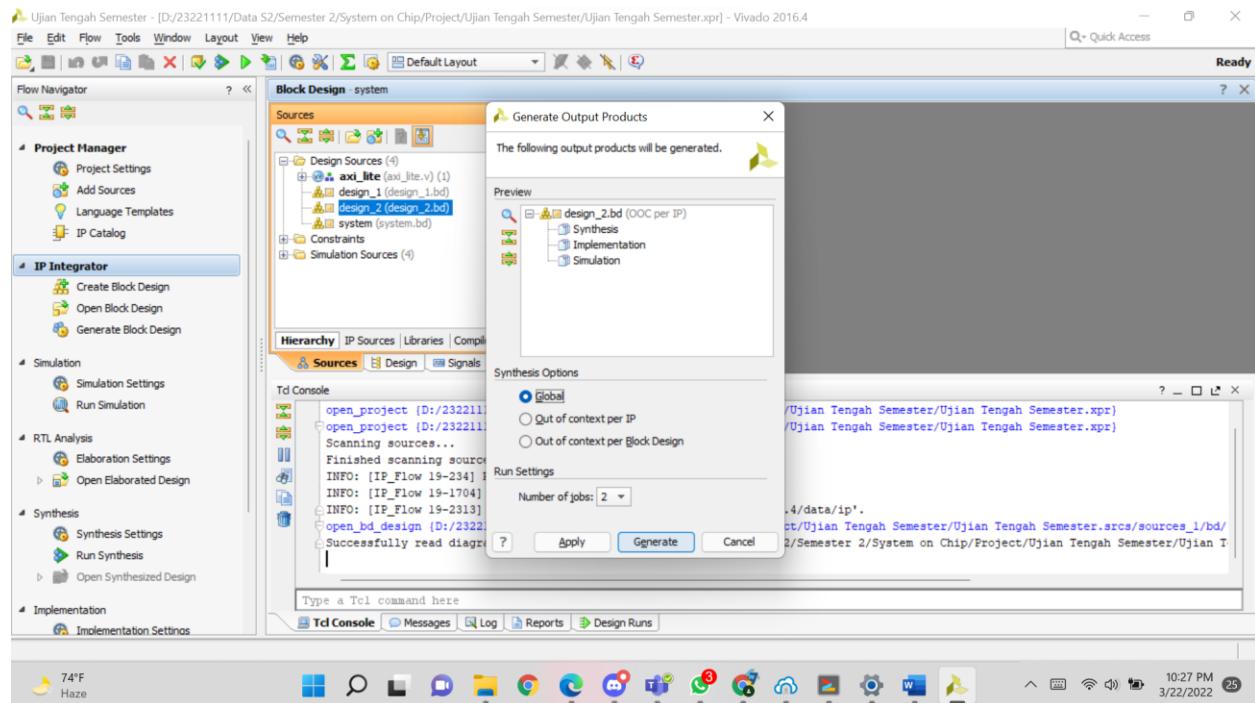
V. Run Block Automation

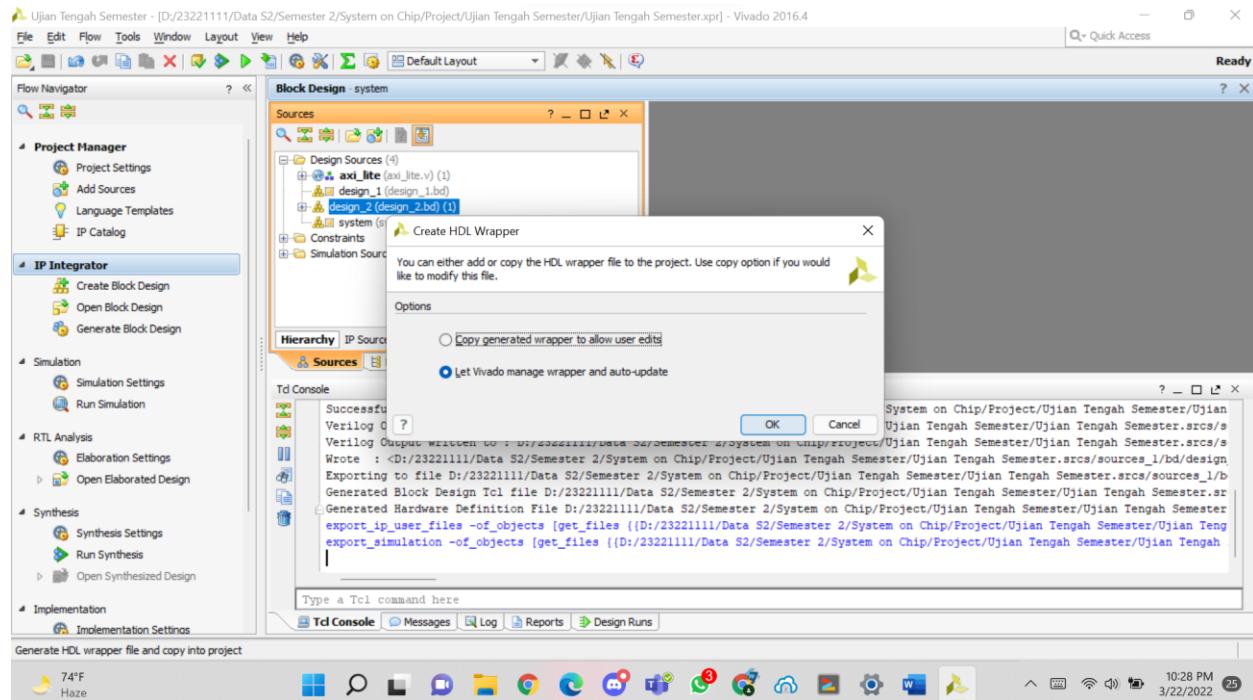


VI. Add Module, pilih axi_lite module.

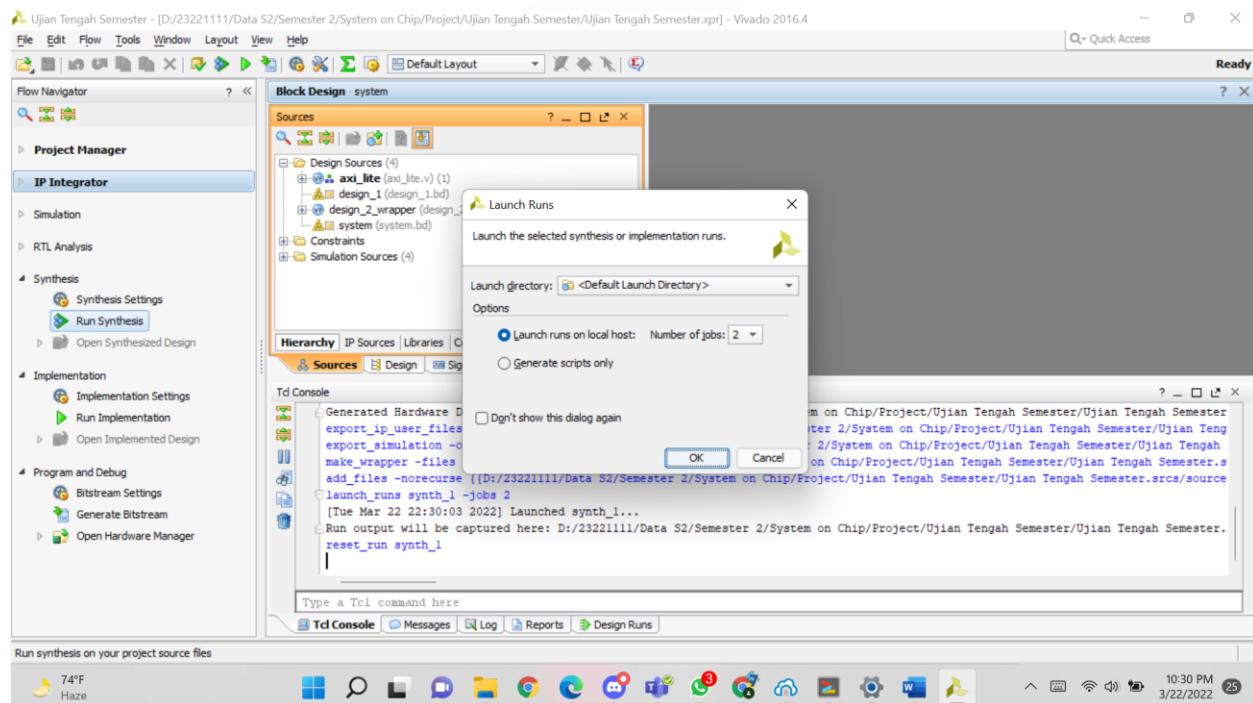


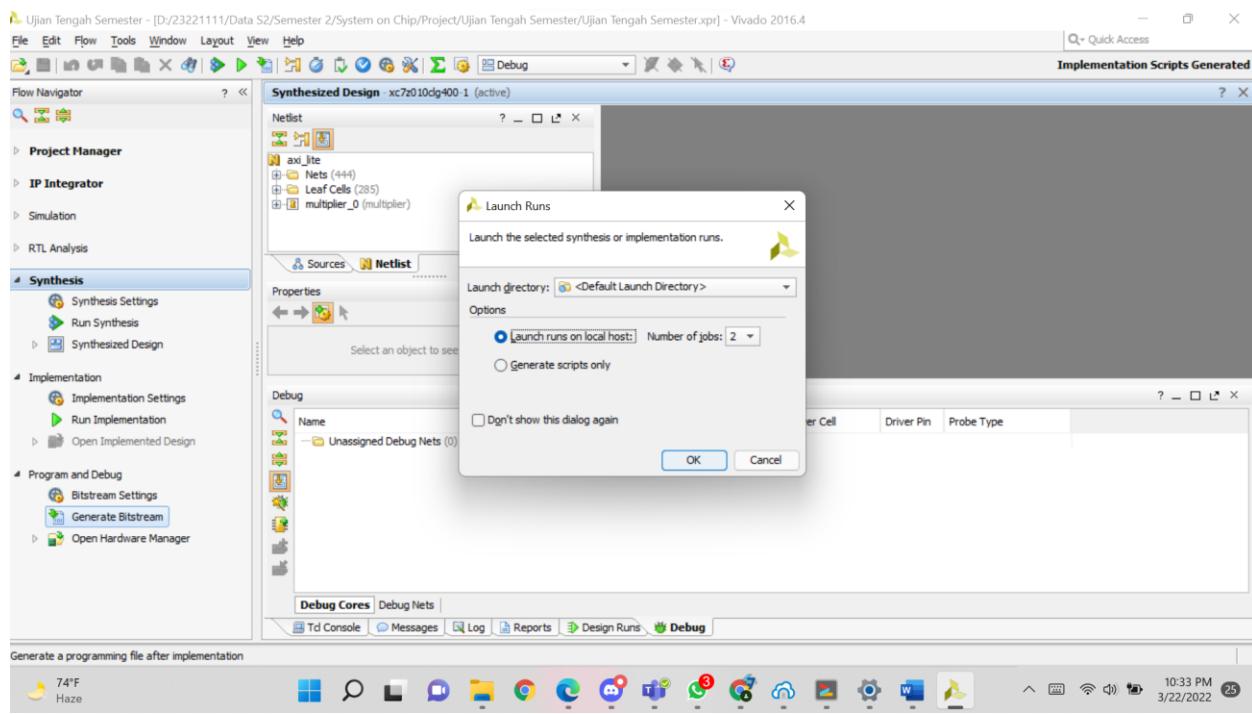
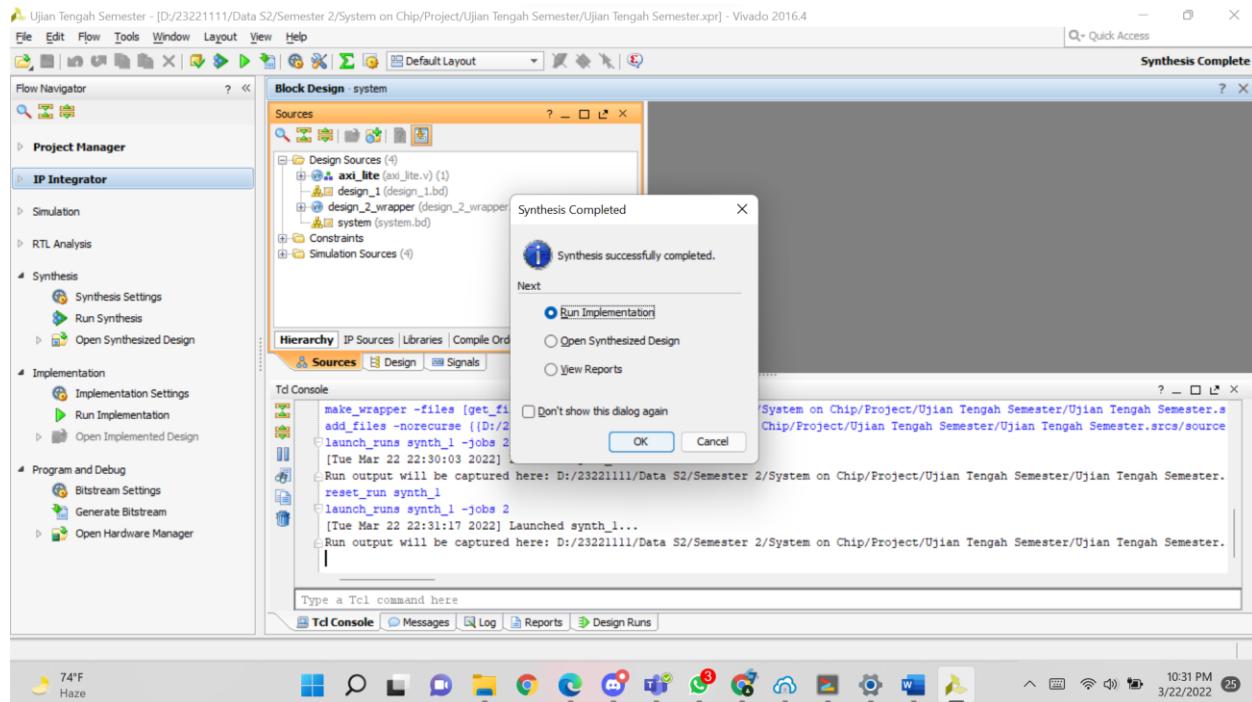
VII. HDL wrapper

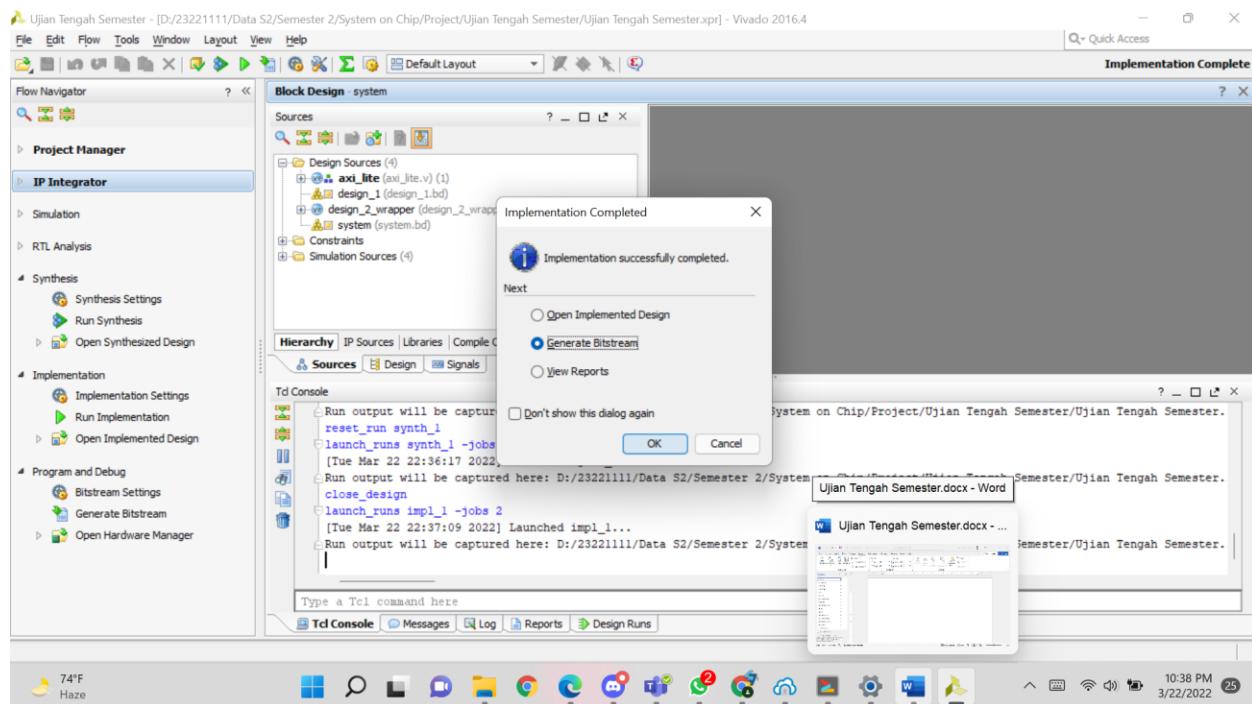




VIII. Run synthesis, implementation, dan generate bitstream







IX. Export hardware, kemudian launch SDK.

