Assignment-02 $sformatf

1. Assume that you have the following variables:

reg [3:0] a = 4'b1010

reg [7:0] b = 8'h5A

Tasks:

1. Use $sformatf to format the values of a and b
2. Display the formatted string using uvm_info
3. Print values in hexadecimal format
4. Use UVM_LOW verbosity

2. $sformatf with Conditional Reporting

Assume:

1. integer score = 45

Tasks:

1. Use $sformatf to format the score value
2. Display message using uvm_info
3. Generate a uvm_warning if score < 50 using $sformatf
4. Use formatted messages for both info and warning

3. $sformatf with Loop Variable

Assume:

integer i;

Tasks:

1. Use a for loop from i = 0 to i = 4
2. Use $sformatf to format loop index value
3. Display message using uvm_info inside the loop
4. Print loop index in decimal and hex format

4. $sformatf with Mixed Formatting

Assume:

reg [3:0] a = 4'h9

integer b = 100

Tasks:

1. Use $sformatf to print a in hex format
2. Use $sformatf to print b in decimal format
3. Combine both values into a single formatted message
4. Display using uvm_info

5. $sformatf with Severity Levels

Assume:

integer temp = 85

Tasks:

1. Use $sformatf to format temperature value
2. Display temperature using uvm_info
3. Generate a uvm_warning if temp > 70
4. Generate a uvm_error if temp > 90
5. Use $sformatf in all messages