```
module StateBox(reset, scoreA, scoreB, problem, check1, check2, ready, greset ,clk);
    input check1, check2, ready, greset, clk;
    output [2:0] scoreA, scoreB, problem;
    output reset;
    reg reset;
    reg [2:0]scoreA, scoreB;
    reg [2:0]problem;
    reg visit;

    always @(posedge clk) begin
        if(greset) begin
            scoreA <= 3'b000;
            scoreB <= 3'b000;
            problem <= 3'b000;
            visit <= 1'b0;
        end else if(ready && ~visit) begin
            if(check1 == 1'b1) begin
                scoreA <= scoreA + 1;
            end
            if(check2 == 1'b1) begin
                scoreB <= scoreB + 1;
            end
            problem <= problem + 1;
            reset <= 1'b1;
            visit <= 1'b1;
        end else begin
            reset <= 1'b0;
            visit <= 1'b0;
        end
    end

endmodule
```