

```
module DRAM (  
    input clock,  
    input [7:0] address,  
    input [1:0] rw,  
    input [7:0] data_in,  
    output [7:0] data_out  
);  
    reg [7:0] mem [0:255];  
    always @(posedge clock) begin  
        if (rw == 2'b00) mem[address] <= data_in;  
        else if (rw == 2'b01) data_out <= mem[address];  
    end  
endmodule
```