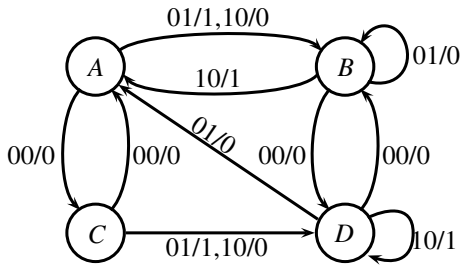
Circuit from state diagram — X76378_en

Design a sequential circuit described by the following state diagram.



The circuit has two inputs (x_1, x_0) and one output (z). The inputs can take the values 00, 01 and 10 (the value 11 will never occur and can be considered as a don't care).

Specification

```
module state_machine(x, z, clk, rst );
    input [1:0] x;
    input clk, rst ;
    output z;
```

Input

- *clk* is the clock signal.
- *rst* is the synchronous reset signal.
- *x* are the two input signals.

Output

- *z* is the ouput signal.

Problem information

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