State reduction
<table>
<thead>
<tr>
<th>Current state</th>
<th>Input</th>
<th>Next state</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>0</td>
<td>a</td>
<td>0</td>
</tr>
<tr>
<td>b</td>
<td>0</td>
<td>b</td>
<td>0</td>
</tr>
<tr>
<td>c</td>
<td>0</td>
<td>f</td>
<td>1</td>
</tr>
<tr>
<td>e</td>
<td>0</td>
<td>a</td>
<td>0</td>
</tr>
<tr>
<td>f</td>
<td>0</td>
<td>a</td>
<td>0</td>
</tr>
<tr>
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</tr>
</tbody>
</table>
Memory o. registers $\rightarrow$ flip-flops (D)

1. SRAM static
2. DRAM dynamic
3. ROM read only
4. Magnetic (tape, floppy disks, hard disks)
5. Optical (CD-ROMs)
6. Flash $\begin{bmatrix} \text{NOR} \\ \text{NAND} \end{bmatrix}$
1. SRAM

2. DRAM
3. Read-only

101101

VDD

GND

EEL201: Digital Electronic Circuits

Shouri Chatterjee
July-December 2009

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