**Nouman Zia (H251060)**

**Note:** instead of 0 and 1 state ground and Vcc signal can be used.   
Clock and rst wires are ommitted. Q’ is left unwired

**Task 1**

A screenshot of a video game

Description automatically generated

**Task 2**

A black background with a black square

Description automatically generated with medium confidence

**Task 3**

A black background with a black square

Description automatically generated with medium confidence

**OR solution 2**

A white square with black text

Description automatically generated

**Task 4**

A white square with black text

Description automatically generated

**Task 5**

A white rectangular object with black text

Description automatically generated

**Task 6**

A white square with black text

Description automatically generated

**Task 7**

A black background with a black square

Description automatically generated with medium confidence

**Task 8**

One hot encoded.

|  |  |
| --- | --- |
| init | 001 |
| assign\_a | 010 |
| assign\_b | 100 |

A white arrow pointing to a black background

Description automatically generated

**OR Solution 2**

Only relevant ports of 8x1 MUX are shown.

A black and white image of a black background

Description automatically generated

**Task 9**

A white eye on a black background

Description automatically generated

**Task 10**

A white rectangles with black text

Description automatically generated