

# FIFO MEMORY

Abhilash Reddy

EE16BTECH11001

March 7, 2019

# FIFO MEMORY

FIFO(First In First Out) is a memory block in which can be used as memory to align the data in order which we need for arithmetic operations or storage.

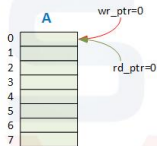
# WHY FIFO?

- It will be very crucial to align data when we want to do matrix multiplication on multicores.
- It is also very useful to store videos
- Receiving continuous data from any port

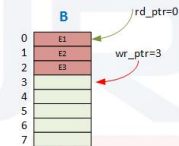
# Design of FIFO

We want to implement a small FIFO design which can do following operations:

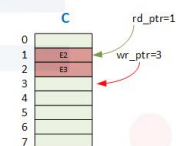
- Take Depth of FIFO and implement a FIFO.
- Can write data to FIFO if it is empty.
- Read data from FIFO if not empty.
- A signal isempty whose value 1 if FIFO is empty and same with isfull.



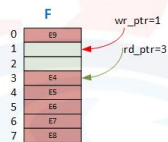
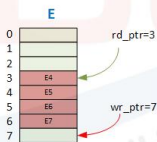
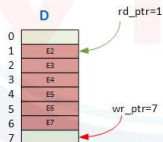
Fifo Empty



3 element written  
1 element read from



3 element written  
1 element read from



write 2 element more

# APPROACH

We want to test whether the FIFO is working or not by:

- ICO board as FPGA.
- The signals for read, write, the elements of FIFO for writing to be given as input from keyboard.
- The output can be checked by inserting single digit integers into FIFO and allot 10 pins for each single integer and check the order of the numbers. If it is same as the inserted order then we can decide it as working.

THANK YOU!!