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### Question-14:

As we all know that one of the major advantage of the RAIDS is Overcoming disk failures, a part from balancing the reads and writes.

As per given data, the data to store is

01011111      00001010      11001101  
10010001      00100001      11110011

Disk-1	Disk-2	Disk-3	Disk-4
01011111	00001010	11001101	P <sub>0</sub>
10010001	00100001	P <sub>1</sub>	11110011

$$P_0 = 01011111$$

$$00001010$$

$$11001101$$

$$\text{XOR } 10011000$$

$$P_1 = 10010001$$

$$00100001$$

$$11110011$$

$$\text{XOR } 01000011$$

Here P<sub>0</sub> is Calculated by XOR the I<sup>st</sup> row of the table

P<sub>1</sub> is Calculated by XOR the II<sup>nd</sup> row of the table.

The final table is

Disk-1	Disk-2	Disk-3	Disk-4
01011111	00001010	11001101	10011000
10010001	00100001	01000011	11110011