

Given 4 routers, R_0, R_1, R_2, R_3 , we modify D-in to store 8 bits instead of 6.

First 2 bits \rightarrow Router destination no.

Next 2 bits \rightarrow Port numbers

Last 4 bits \rightarrow Message

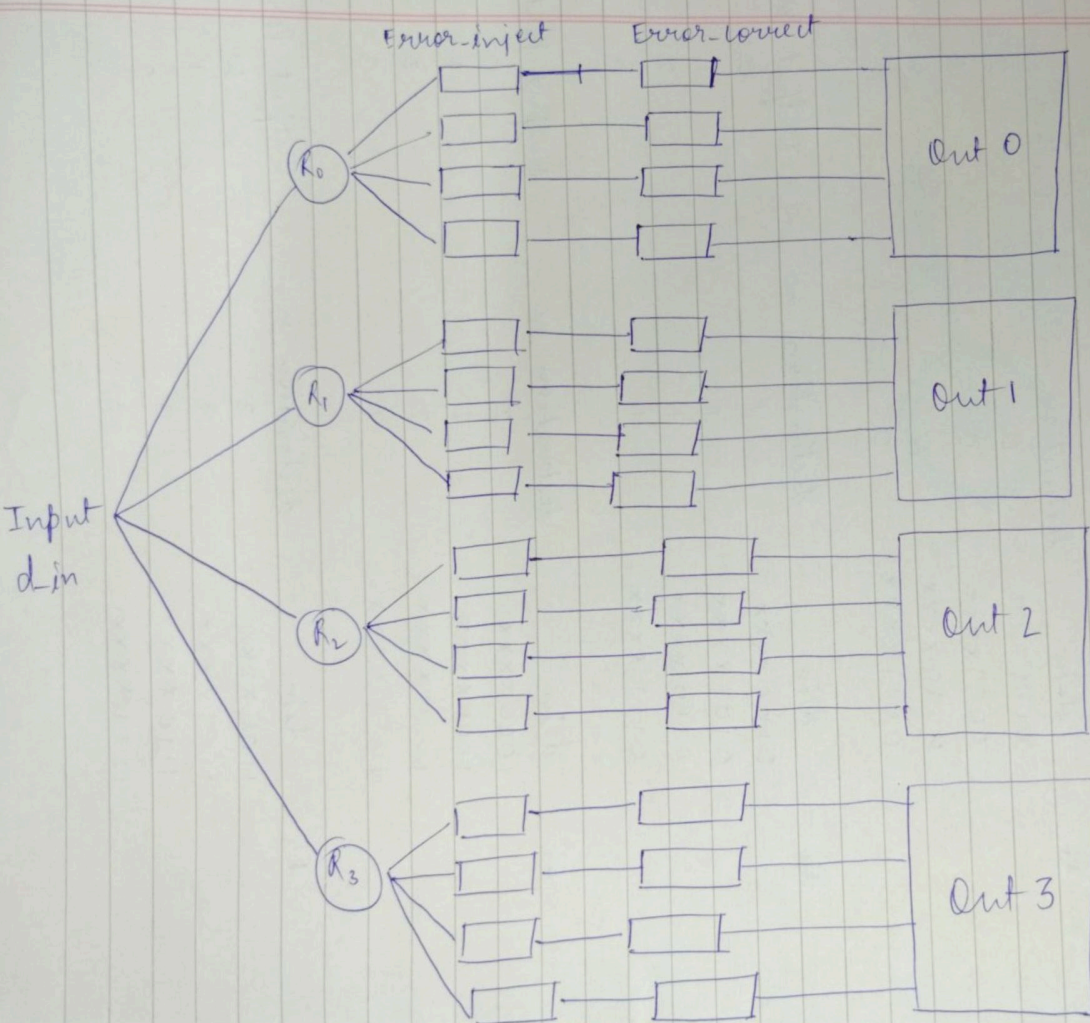
Router Table :-

R_0	d-in	destination no.	Output port no.
	0000xxxx	0	0
	0001xxxx	0	1
	0010xxxx	0	2
	0011xxxx	0	3

R_1	d-in	destination no.	Output Port no.
	0100xxxx	1	0
	0101xxxx	1	1
	0110xxxx	1	2
	0111xxxx	1	3

R_2	d-in	destination no.	Output Port No.
	1000xxxx	2	0
	1001xxxx	2	1
	1010xxxx	2	2
	1011xxxx	2	3

R_3	d-in	destination no.	Output Port no.
	1100xxxx	3	0
	1101xxxx	3	1
	1110xxxx	3	2
	1111xxxx	3	3



Schematic
Diagram