Fast Ethernet is a set of Ethernet standards for 100 Megabit per second (Mbps) computer networking. Using Fast Ethernet, data can be transmitted over copper-twisted pair or longer-distance fiber-optic cables. Its low cost and relatively high speed often make it a good choice for everyday network connectivity. It is frequently used by desktop and portable computers to communicate with network hubs, routers and switches.

During the early 1990s, the 10 Mbps speed limitation of existing Ethernet networks was creating frequent bottlenecks. High-speed optical technologies such as Fiber Distributed Data Interface (FDDI) were often too expensive to implement. The Institute of Electrical and Electronics Engineers (IEEE) introduced Fast Ethernet as a low-cost solution in 1995. Supporters originally claimed that this 100 Mbps technology could be used without replacing existing network cables. In reality, many installations had to be rewired with a newer cable standard to fully support the higher device bandwidths.

The term fast Ethernet is relative to the network technology available at the time. In 1995, regular Ethernet operated at just 10 Mbps, and Fast Ethernet was 10 times faster. Since the late 1990s, however, Ethernet speeds have increased considerably. 1 Gigabit per second (Gbps) Etherne—also known as Gigabit Ethernet—was introduced in 1999. This was soon followed by 10, 40 and 100 Gigabit Ethernet in the 2000s.

Step 1: Arrange all devices as shown below:

Step 2: Configure Router using CLI, using following commands:

configure t

hostname R1

enable password cisco

interface fa0/0

ip address 192.168.2.1 255.255.255.0

no shutdown

exit

Exit

: Configure All PC’s and check the connection.

PC0

IP config : 192.168.2.2

Default Gateway: 192.168.2.1

PC1

IP config : 192.168.2.3

Default Gateway: 192.168.2.1

PC2

IP config : 192.168.2.4

Default Gateway: 192.168.2.1

Ping 192.168.2.1 with all the PCs