Q. Demonstrate DNS Server in Packet Tracer.

Aim: To configure a DNS server to resolve domain names to IP addresses and test name resolution in the network.
Devices Needed:
1 Server (DNS Server)
1 Router
1 Switch
2 PCs (Clients)
Topology:

Code:
Configure DNS Records:
Name: www.company.com
Type: A Record
Address: 192.168.1.5 # Points to Server itself
-> Add

Name: ftp.company.com
Type: A Record
Address: 192.168.1.5 # Points to Server itself
-> Add

Name: mail.company.com
Type: A Record
Address: 192.168.1.5 # Points to Server itself
-> Add

Server IP Configuration:
IP Address: 192.168.1.5
Subnet Mask: 255.255.255.0
Default Gateway: 192.168.1.1
DNS Server: 192.168.1.5
Router Configuration:
Router>enable
Router#configure terminal
Router(config)#interface FastEthernet0/0
Router(config-if)#ip address 192.168.1.1 255.255.255.0
Router(config-if)#no shutdown
Router(config-if)#exit
Router(config)#exit
Router#copy running-config startup-config
PC1 Configuration:
IP Address: 192.168.1.10

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.1.1
DNS Server: 192.168.1.5
PC2 Configuration:
IP Address: 192.168.1.11
Subnet Mask: 255.255.255.0
Default Gateway: 192.168.1.1
DNS Server: 192.168.1.5
In PC Command Prompt
PC1:
C:\>nslookup www.company.com
C:\>nslookup ftp.company.com
C:\>nslookup mail.company.com
C:\>ping www.company.com
C:\>ping ftp.company.com
PC2:
C:\>nslookup www.company.com
C:\>nslookup mail.company.com
C:\>ping www.company.com
C:\>ping mail.company.com

Output:
PC1 nslookup Results:
bash
C:\>nslookup www.company.com
Name: www.company.com
Address: 192.168.1.5

C:\>nslookup ftp.company.com
Name: ftp.company.com
Address: 192.168.1.5

C:\>nslookup mail.company.com
Name: mail.company.com
Address: 192.168.1.5
PC1 Ping Results:
bash
C:\>ping www.company.com
Pinging www.company.com [192.168.1.5] with 32 bytes of data:
Reply from 192.168.1.5: bytes=32 time=1ms TTL=128
Reply from 192.168.1.5: bytes=32 time<1ms TTL=128
Reply from 192.168.1.5: bytes=32 time<1ms TTL=128

Reply from 192.168.1.5: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.1.5:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms
PC2 nslookup Results:
bash
C:\>nslookup mail.company.com
Name: mail.company.com
Address: 192.168.1.5

C:\>nslookup www.company.com
Name: www.company.com
Address: 192.168.1.5
PC2 Ping Results:
bash
C:\>ping mail.company.com
Pinging mail.company.com [192.168.1.5] with 32 bytes of data:
Reply from 192.168.1.5: bytes=32 time=1ms TTL=128
Reply from 192.168.1.5: bytes=32 time<1ms TTL=128
Reply from 192.168.1.5: bytes=32 time<1ms TTL=128
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Conclusion: The DNS server has been configured successfully.