

## DNS Client

```
import java.net.*;

public class CustomDNSClient {
    public static void main(String[] args) throws Exception {
        DatagramSocket socket = new DatagramSocket();

        String queryDomain = "example.com"; // Replace with your CO4 hostname
        byte[] queryData = createDNSQuery(queryDomain);

        InetAddress dnsServerAddress = InetAddress.getByName("DNS_SERVER_IP"); //
        Replace with the DNS server's IP
        int dnsServerPort = 53; // DNS port

        DatagramPacket sendPacket = new DatagramPacket(queryData, queryData.length,
        dnsServerAddress, dnsServerPort);
        socket.send(sendPacket);

        byte[] responseData = new byte[1024];
        DatagramPacket receivePacket = new DatagramPacket(responseData,
        responseData.length);
        socket.receive(receivePacket);

        // Process and parse the DNS response here
        // Extract the resolved IP address from the response

        socket.close();
    }

    private static byte[] createDNSQuery(String domain) {
        // Create a DNS query byte array following the DNS protocol
        // Return the byte array
    }
}
```