



Computer Science II

(UOMU013046)



Lab No. 1

Lab Introduction: Identifying IP and MAC Addresses

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Introduction

In this lab, we will learn how to find the IP address and MAC address of a computer using simple commands. The IP address is a unique identifier used for communication over networks, while the MAC address is a hardware address assigned to a device's network interface.

IPv4 Address Format



Find the Computer's IP and MAC Address using CMD or PowerShell:

Open **Command Prompt (CMD)** or **PowerShell**. Type the following command and press **Enter**:

```
ipconfig /all
```

This will display the **IP address** (IPv4 and IPv6) and the **MAC address**.

Find the IP Address of a Website using nslookup:

In the command prompt, type:

```
nslookup www.google.com
```

This will return the IP address of Google's servers.

Trace the Route to a Website using tracert:

Type the following command and press Enter:

```
tracert www.google.com
```

This will show the path packets take to reach the website.

Thank You