

## UNIT 1

### NAT

<https://youtu.be/j4WoWBkSnaE?si=D2ARlbKrQR9EKxFr>

For NAT table please refer to the link provided in guidelines

### Subnet Masking (Classful and classless both) from gate smashers

(from lecture 41 to 52)

Lec 41: <https://youtu.be/iurle2xZrBO?si=eUG9iNo94uN3GR3F>

Lec 42: <https://youtu.be/es1NEZbgCss?si=KtyDKomQU-Ud67BW>

Lec 43: <https://youtu.be/gk7c-Dceg5Y?si=KB0TcVVLSpWx8P3>

Lec 44: <https://youtu.be/NDG2SEi2dKo?si=zCsoYDfUmrJlq9jY>

Lec 45: [https://youtu.be/vTzrn\\_M77mo?si=TH1a5MtHO\\_RTBM58](https://youtu.be/vTzrn_M77mo?si=TH1a5MtHO_RTBM58)

Lec 46: <https://youtu.be/ARfwnD6X6ZI?si=5nFT9z7IEpczHnLc>

Lec 47: <https://youtu.be/N-ywmOpWehE?si=bTxjCakMFdGa4K8q>

Lec 48: [https://youtu.be/rdb2ki4iGuo?si=eE\\_Dg\\_kKdtoS291u](https://youtu.be/rdb2ki4iGuo?si=eE_Dg_kKdtoS291u)

Lec 49: [https://youtu.be/mhVATrk00hU?si=JsF\\_ZSYZ73Z5XeAN](https://youtu.be/mhVATrk00hU?si=JsF_ZSYZ73Z5XeAN)

Lec 50: <https://youtu.be/wvvoT-dpr8o?si=doC5ZUINO-ea3jho>

Lec 51: <https://youtu.be/jXioUR02v8E?si=rEHgGhfRrXLIA9xk>

Lec 52: <https://youtu.be/DFjz3yxe3aU?si=L-CpiE83pnlZ9pwD>

### Domain name server

<https://www.geeksforgeeks.org/domain-name-system-dns-in-application-layer/>

[https://youtu.be/vhfRART11jc?si=49KLHJH46C\\_iB0mq](https://youtu.be/vhfRART11jc?si=49KLHJH46C_iB0mq)

### For dynamic and static routing:

<https://www.geeksforgeeks.org/difference-between-static-and-dynamic-routing/>

<https://youtu.be/21LITSa58a0?si=-9TyVaDfcTGMdltN>

**Ipconfig, ping, netstat, tracert:** <https://www.networkstraining.com/windows-ip-commands/>

Also use ipconfig/all to display ip address, subnet mask of your systems

## UNIT 2

### HTTP

[https://youtu.be/\\_szgZM1sDiM?si=zHSEF5Yv0xhhUu2N](https://youtu.be/_szgZM1sDiM?si=zHSEF5Yv0xhhUu2N)

### HTTPS

[https://youtu.be/vyv5f57kGu8?si=90nk0970\\_ms-MhOu](https://youtu.be/vyv5f57kGu8?si=90nk0970_ms-MhOu)

### FTP

<https://youtu.be/SVTQOvIwgbM?si=CXeGUqm400kbUukR>

### SMTP:

<https://youtu.be/SdnK9KVBSww?si=HGU6FX6SsmcuGpNP>

### SMTP vs POP3 vs IMAP:

[https://youtu.be/cjPVIxmf\\_Vk?si=J0it2IOAaPxw1jdk](https://youtu.be/cjPVIxmf_Vk?si=J0it2IOAaPxw1jdk)

### VOIP

<https://youtu.be/pecmR0SpbFE?si=Em9WZ15u5veE5tU->

## UNIT 3

**Web Servers: Introduction, Working, Configuring, Hosting and Managing a Web server, Client-side Technologies, Server Side Technologies, and hybrid technologies**

**R1- Chapter 1 and 2**

✓ **Proxy Server:** <https://youtu.be/5cPlukqXe5w?si=U6ru0mum7CgG7DJu>

Read pdf: **Proxy server.pdf**

## UNIT 4

X **Combining Web Applications and Mobile Applications**

**R3 Lesson 11 (Up to page 246)**

✓ **Introduction to forums, blogging, portfolio, developing a responsive website**

Read pdf: **Forum vs Blog.pdf**

### JavaScript, jQuery, JSON

R2 Chapter 2,3,4 Complete

R2 Chapter 5 up to page 236 (Except 228-235)

R2 Chapter 6 up to page 270 (Except 258-259,264)

R2 Chapter 7 up to page 357 (Except 330-341, 346-353)

R2 Chapter 8 up page 396 (Except 375, 380-381, 383-387)

### Node.js

✓ **Intro to node.js**

Read pdf: **Intro to node.js.pdf**

✓ **Difference b/w node.js and browser**

Read pdf: **Differences between node.js and browser.pdf**

✓ **Run node.js scripts from command-line**

Read pdf: **Run node.js scripts from command-line.pdf**

✓ **How to exit from node.js program**

Read pdf: **How to exit process in node.js.pdf**

✓ **Build an http server**

Read pdf: **Intro to node.js.pdf**

✓ **Read files with node.js**

Read pdf: **Reading files with node.js.pdf**

✓ **Node.js mysql**

Read pdf: **Node.js MySQL.pdf**

## ✓ **Bootstrap**

✓ **Bootstrap Intro**

Read pdf: **Bootstrap Get Started.pdf**

✓ **Bootstrap Grid System**

Read pdf: **Bootstrap Grid System.pdf**

## **UNIT 5**

✓ **Search Engines - components, working, optimization, Crawling, BOTS:**

Read pdf: **How search works.pdf**

## **UNIT 6**

✓ **Introduction to cookies and sessions. Introduction to ecommerce websites and e-carts :**

**R1 Chapter 13 (Page 301-303 except Setting a cookie, Page 312-Using Sessions)**

✓ **Also Read examples of cookies in e-commerce websites**