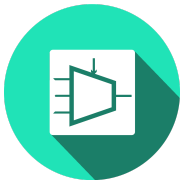
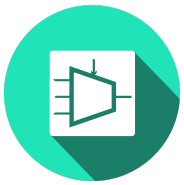


Reading Material and Syllabus

- **Visual Studio Download - https://code.visualstudio.com/**

- **Web 101- Client Server architecture**
  - https://github.com/vasanthk/how-web-works
- **Cookies, Cache and 3 way handshake**
- **HTML and CSS**
  - https://github.com/RitikPatni/Front-End-Web-Development-Resources
  - https://learn.shayhowe.com/html-css/building-your-first-web-page/
  - https://www.freecodecamp.org/news/get-started-with-css-in-5-minutes-e0804813fc3e/
  - Try to get some hands on experience by creating one of these projects - https://medium.com/@avicndugu/projects-to-practice-html-css-skills-for-beginners-8b9ed67a7dd1
- **JS and Bootstrap**
  - Bible - https://getbootstrap.com/docs/4.4/getting-started/introduction/
  - https://www.freecodecamp.org/news/learn-bootstrap-4-in-30-minute-by-building-a-landing-page-website-guide-for-beginners-f64e03833f33/

- **Angular JS**
  - https://angular.io/tutorial/toh-pt0
- **Node JS**
  - https://codeburst.io/the-only-nodejs-introduction-youll-ever-need-d969a47ef219
- **Version Control**
  - Follow this tutorial to setup git locally - https://git-scm.com/book/en/v2/Git-Basics-Getting-a-Git-Repository
- **MVC Architecture**
  - https://softwareengineering.stackexchange.com/questions/127624/what-is-mvc-really
- **AWS Scaling - Intro**
- **AWS EC2 -** https://aws.amazon.com/getting-started/
- **AWS S3 - Setup and Configure**
- **Servers and ELBs**
- **LAMP Architecture**
- **Introduction to Linux Environment - Users, Groups and Permissions**
- **Virtual Hosts and .htaccess files**
- **Domain Names and Basics of SEO**
- **Designing systems - Youtube/Netflix/Equivalent, Ecommerce/Equivalent, Cab Hailing/Equivalent (Depends on requirements)**



For Resume Purpose -

Agenda - Configuring a AWS web server to host a web microservice

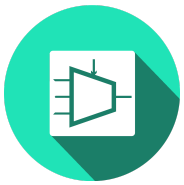
- Set up AWS EC2 web server and configure different services through Virtual Hosting and Mysql as DB Host setup
- Configured DNS and map it with the web server using Elastic IP
- Uploaded the project over github and pulled the master branch to my server.
- Create a short Application using a tech stack including CSS, JS, Bootstrap, Angular, Node.JS etc and use it as a primary project.
- Tech involved include AWS EC2 Ubuntu image, Elastic IP load balancer, Virtual Hosting through ApacheV2, Confd Configuration, Version Control, DNS Config and full stack for our microservice
- Towards the end, – Any project can be uploaded on the own personal web server and portfolio will be live over the domain name - abc.xyz

Follow up - Update the same over linkedin, if applying for off campus

Deployment SOP

Project Agenda - Set up EC2 web server and configure different services through Virtual Hosting with embedded Caching and Mysql Host setup. (If time persists we can also create one sample web Microservice). Also, upload your project on Github using version control.

Tech Involved - AWS EC2 Ubuntu image instance, Elastic IP load balancer, DB sharding, Virtual Hosting through Apache V2, Confd Configuration, MYSQL setup, Memcache Configuration, Version Control (Github and Bitbucket), DNS Config and full web stack for our microservice (HTML,CSS,JS,PHP,Jquery, Angular-JS,NodeJS etc)



Goal - We will configure a web server of your own and then host a webservice and create a 301 redirect to demux servers. At the end of this exercise you can upload whatever project you want on your own personal web server and your portfolio will live over the domain **name bought by you.** We will also configure DNS and see how it works in real time.

Prerequisites -

- Sign into AWS console and create a free 1 year account (Might charge 2 rs for first time but that's totally worth)
    - Create a personal account and not professional (they might charge more otherwise)
- For Windows user install putty and putty keygen
- Please read through all basic Linux Commands
- Please read about GIT using tutorials mentioned below.
- Rest details we will cover in today's session.

Login for Windows User (Through Putty)

Follow all steps mentioned here -
https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/putty.html
Take reference - https://www.youtube.com/watch?v=bi7ow5NGC-U

Login for Ubuntu/Macos Users

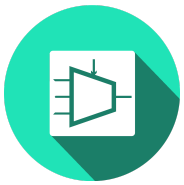
Through normal ssh through terminal -
ssh -i <.pem file location> ubuntu@<Complete_HostName>

Creating Sample web page and learning Bootstrap

- https://www.freecodecamp.org/news/learn-bootstrap-4-in-30-minute-by-building-a-landing-page-website-guide-for-beginners-f64e03833f33/
- https://medium.com/techtrument/how-i-made-my-portfolio-website-409dfbbc5b87
- https://codeburst.io/how-to-create-a-dynamic-website-in-30-minutes-with-fullpage-js-7e91b70dcdee

Resources to Learn basic Bootstrap -

- https://medium.com/quick-code/top-tutorials-to-develop-responsive-websites-using-bootstrap-4-c934172f3ebd



Resources to learn about GIT -

- https://hackernoon.com/understanding-git-fcffd87c15a3
- https://medium.com/@george.seif94/a-full-tutorial-on-how-to-use-github-88466bac7d42
- https://www.freecodecamp.org/news/learn-the-basics-of-git-in-under-10-minutes-da548267cc91/

Initialize git over your Server
https://www.digitalocean.com/community/tutorials/how-to-install-git-on-ubuntu-18-04-quickstart

Type of DNS Configs
https://www.godaddy.com/garage/dns-records-a-beginners-guide/

DNS Configuration
https://medium.com/@jryancanty/domain-by-godaddy-dns-by-route53-fc7acf2f5580

OOPS Using C++
Big 4 principles - https://beginnersbook.com/2017/08/cpp-oops-concepts/
Abstract topics w.r.t OOPS in C++ -
https://learntofish.wordpress.com/2012/10/03/tutorial-oop-in-c-part-1-multiple-files/
https://www.gamasutra.com/blogs/MarcCosta/20190401/339769/On_C_and_Object_Oriented_Programming.php
Questions in C++ - https://hackr.io/blog/cpp-interview-questions

Quant Puzzles

https://github.com/sharkdp/great-puzzles
http://puzzles.nigelcoldwell.co.uk/
http://www.streetofwalls.com/finance-training-courses/quantitative-hedge-fund-training/quant-interview-questions-answers/