



Web Designing (03010501PC01)

Unit 4 : Introduction to Web Deployment





What is Web Hosting?

- A **service** that makes websites accessible on the internet
- Websites are stored on special computers called **servers**
- Host = "home" of your website files



Example

- Without hosting → Only you can see files on your PC
- With hosting → Everyone can access your site via a **domain name**



Types of Hosting

1. **Shared Hosting** – Many websites share 1 server (cheap, beginner-friendly)
2. **VPS Hosting** – Virtual Private Server, more power & control
3. **Dedicated Hosting** – Entire server for 1 website (expensive, powerful)
4. **Cloud Hosting** – Scalable, pay-as-you-go (Amazon AWS, Google Cloud)



Domain Names & DNS

- What is a Domain Name?
 - Human-readable address of a website (e.g., www.example.com)
 - Easier than remembering IP addresses



Domain Structure

- Example: www.openai.com
- www → Subdomain
- openai → Domain name
- .com → Top-level domain (TLD)



How Domain Names Work

1. User types example.com
2. Browser sends request to **DNS (Domain Name System)**
3. DNS finds server IP address
4. Website loads from hosting server



Deployment Methods

1. **FTP Upload** (manual, old method)
2. **Control Panel Hosting (cPanel)**
3. **GitHub Pages** (free static site hosting)
4. **Netlify / Vercel** (modern, automated deployment)
5. **Cloud Platforms** (AWS, GCP, Azure)



Why Deployment?

- Websites should be **accessible online**
- Deployment makes your project **live** for anyone to see
- Helps build **portfolio** for jobs/internships



Deployment Options

1. **GitHub Pages** – Free, easy for static sites
2. **Netlify** – Free hosting + continuous deployment
3. **Vercel** – Great for frontend frameworks (React, Next.js, etc.)



GitHub Pages

➤ Step 1 – Create GitHub Account

1. Go to github.com
2. Sign up for a free account
3. Install **Git** (if not already installed)



GitHub Pages

➤ **Step 2 – Upload Project**

1. Go to repository → **Settings**
2. Scroll to **Pages**
3. Select **Branch: main / root**
4. Click **Save**

➤ Your website will be live at:

- <https://username.github.io/repository-name>



Netlify Deployment

- Netlify – Overview
 - Free hosting for static sites
 - Drag-and-drop or connect GitHub repo
 - Auto-deployment on every code push



Netlify Deployment

- Step 1 – Create Account
 - Go to netlify.com
 - Sign up with GitHub account



Netlify Deployment

➤ Step 2 – Deploy Site

1. Option 1: **Drag and Drop**

- Zip your project folder
- Drag to Netlify dashboard

1. Option 2: **GitHub Integration**

- Connect repository
- Netlify auto-builds and deploys



Netlify Deployment

- Netlify Site URL
- Netlify gives you a free URL: <https://yoursite.Netlify.app>
- You can also connect a **custom domain**



Vercel Deployment

- Why Vercel?
 - Great for modern web apps (React, Next.js, etc.)
 - Free hosting + serverless functions
 - Easy GitHub integration



Vercel Deployment

- Step 1 – Create Vercel Account
 - Go to **vercel.com**
 - Sign up with GitHub



Vercel Deployment

- Step 2 – Deploy Site
 - Import GitHub repository
 - Configure project settings (auto-detects framework)
 - Click **Deploy**



Vercel Deployment

- Vercel Site URL:
 - Free domain like: <https://project-name.vercel.app>
 - Option to add **custom domain**



Summary

- Learned **3 ways to deploy websites**
- our project is now **online**
- Deployment helps build your **portfolio**



Version Control Basics (Git & GitHub)

- What is Version Control?
 - A system to **track changes in code**
 - Helps in teamwork, backup, and rollback



What is SEO?

- **Search Engine Optimization** = Improving site visibility on Google
- Higher ranking = More visitors



On-Page SEO

- Use proper titles (`<title>`)
- Meta descriptions (`<meta name="description">`)
- Use **headings (H1, H2, H3)** correctly
- Optimize images with **alt text**



Technical SEO

- Mobile-friendly design (responsive)
- Fast loading (optimize images, minify CSS/JS)
- Use HTTPS (SSL certificate)

- x **DIGITAL LEARNING CONTENT**



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