Module 2 – Fundamentals of World Wide Web

THEORY EXERCISE:

1. Difference between Web Designer and Web Developer

Web Designer	Web Developer
Focuses on the **look and feel** of a website (design, layout, colors).	Focuses on the **functionality and coding** of the website.
Uses tools like **Adobe XD, Figma, Photoshop**.	Uses programming languages like **HTML, CSS, JavaScript, PHP, Python**.
Creates **UI/UX** (user interface/user experience).	Builds the **structure and logic** behind the website.
Example: Makes sure the website looks good on all screen sizes.	Example: Makes the contact form work and stores the data.

🖌 Designer = Artist
👨‍💻 Developer = Engineer

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2. What is W3C?

W3C stands for **World Wide Web Consortium**.

- It is an **international organization** that develops **web standards**.
- Created by **Tim Berners-Lee** (the inventor of the web).
- Its goal is to make the **web accessible, secure, and usable** for everyone.

💡 Example: W3C defines how HTML, CSS, and other web technologies should work.

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3. What is a Domain?

A **domain** is the **name** of a website that people type in the address bar.

- It is linked to the website's IP address.
- Example: `www.amazon.com` is a domain.
- Domains are **purchased from registrars** (like GoDaddy or Namecheap).

🔤 **Parts of a domain:**

- **www** – Subdomain
- **example** – Domain name
- **.com** – Extension (TLD)

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4. What is SEO?

SEO stands for **Search Engine Optimization**.

- It is the process of **improving a website** so it ranks higher on search engines like Google.
- Goal: **Increase visibility**, get more visitors.

🛠 **Types of SEO:**

- **On-page SEO** – Content, keywords, titles, images
- **Off-page SEO** – Backlinks, social sharing
- **Technical SEO** – Website speed, mobile-friendliness, code quality

📈 Good SEO = More traffic = More business

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5. What is SDLC (Software Development Life Cycle)?

SDLC is the process of **developing software step by step**.

🌀 **Phases of SDLC:**

1. **Requirement Gathering** – What do users need?
2. **Planning** – Time, cost, resources
3. **Design** – Create architecture, database, UI
4. **Development** – Write code
5. **Testing** – Check for bugs and fix errors
6. **Deployment** – Launch the software
7. **Maintenance** – Update, fix issues after launch

🏗 It helps in building software **efficiently and systematically**.