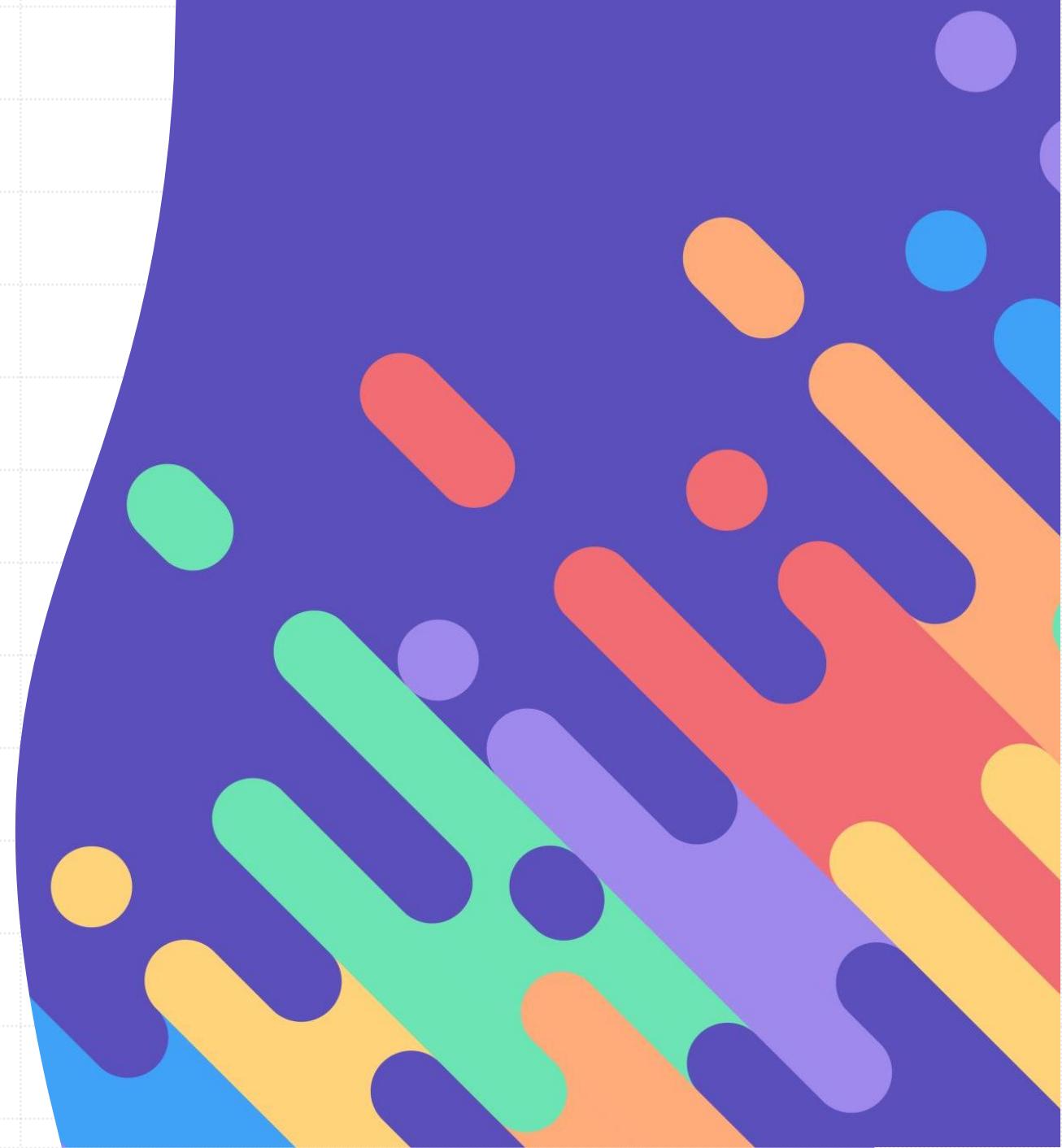


Topic 5

Tools and Products to Aid Website Design

CST4013 | Website Designing





1

Identify the website design tools.



2

Describe the categories of website development tools.

Learning Outcomes

Website Design Tools

- Website Design tools simply refer to material or software programs generally used to develop effective, beautiful, and responsive websites.
- There are plethora of tools available in website design including:

1. Adobe XD	4. Adobe Photoshop
2. Sketch	5. InVisio Studio
3. Figma	6. Canva

Website Design Tools

Tools	Description	Example
Adobe XD	<ul style="list-style-type: none">Adobe XD is a powerful design tool specifically built for creating prototypes and designs for websites and mobile apps.It offers features for wireframing, prototyping, and collaboration.	 The logo for Adobe XD, featuring the letters 'Xd' in a white, rounded font inside a dark purple rounded square.
Sketch	<ul style="list-style-type: none">Sketch is a design tool for macOS that's widely used for website and UI/UX design.It offers a range of features for creating vector-based designs, symbols, and reusable components.	 The logo for Sketch, featuring a yellow diamond icon followed by the word 'Sketch' in a black, sans-serif font.

Website Design Tools

Tools	Description	Example
Figma	<ul style="list-style-type: none">Figma is a popular cloud-based design and prototyping tool used primarily by designers, UI/UX professionals, and product teams.It allows users to create, collaborate on, and prototype digital designs in real-time.	
Adobe Photoshop	<ul style="list-style-type: none">Photoshop is also used for designing website layouts, creating graphics, and editing images.It's particularly useful for designing complex visual elements and manipulating photos.	

Website Design Tools

Tools	Description	Example
InVision Studio	<ul style="list-style-type: none">• InVision Studio is a screen design tool that enables rapid prototyping and animation.• It allows designers to create interactive prototypes and design systems for websites and apps.	
Canva	<ul style="list-style-type: none">• Canva is a user-friendly graphic design platform that offers a wide range of templates, stock photos, and design elements.• While not as advanced as some other tools, it's great for creating simple website graphics and designs quickly.	

Website Development Tools

- Website development software includes a range of applications and platforms designed to help developers create, design, test, and maintain websites.
- It can be categories into:

Integrated Development Environments (IDEs)	Database Management Systems
Design Software (website design)	Deployment and Hosting Services
Front-end Development Tools	Performance and Optimization Tools
Back-end Development Tools	Testing Tools
Version Control Systems	

Website Development Tools

Tools	Examples	Description
Integrated Development Environments (IDEs)	Visual Studio Code  Visual Studio Code	A free, open-source code editor from Microsoft, known for its extensive language support, debugging capabilities, and a wide range of extensions.
	Sublime Text 	A sophisticated text editor for code, markup, and prose, known for its speed and powerful features.
	Atom 	An open-source text editor from GitHub, customizable with various packages and themes.
	WebStorm 	A powerful IDE from JetBrains, specifically designed for JavaScript development, but also supports HTML and CSS.

Website Development Tools

Tools	Examples	Description
Front-end Development Tools (Client-side scripting)	HTML/CSS/ JavaScript	The core technologies for building the structure, style, and behavior of web pages.
	Bootstrap	A front-end framework for developing responsive and mobile-first websites using CSS and JavaScript.
	React	A JavaScript library for building user interfaces, particularly single-page applications.
	Angular	A platform for building mobile and desktop web applications, developed by Google.

Website Development Tools

Tools	Examples	Description
Back-end Development Tools (Server-side scripting)	Node.js	A JavaScript runtime built on Chrome's V8 JavaScript engine, allowing server-side scripting.
	Express.js	A minimal and flexible Node.js web application framework providing robust features for web and mobile applications.
	Ruby on Rails	A server-side web application framework written in Ruby, promoting convention over configuration.
	PHP	A general-purpose scripting language that is especially suited to web development.

Website Development Tools

Tools	Examples	Description
Version Control Systems	Git	A distributed version control system for tracking changes in source code during software development
	GitHub	A web-based platform for version control and collaboration, utilizing Git
	GitLab	A web-based DevOps lifecycle tool that provides a Git repository manager, wiki, issue-tracking, and CI/CD pipeline features.

Website Development Tools

Tools	Examples	Description
Database Management Systems	MySQL	An open-source relational database management system.
	PostgreSQL	A powerful, open-source relational database system with an emphasis on extensibility and standards compliance.
	MongoDB	A NoSQL database known for its scalability and flexibility.

Website Development Tools

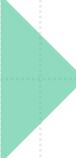
Tools	Examples	Description
Deployment and Hosting Services	Netlify	A platform for deploying static websites and serverless functions with continuous deployment from Git repositories.
	AWS (Amazon Web Services)	A comprehensive cloud platform offering various services including hosting, databases, and more.
	Vercel	A cloud platform for static sites and serverless functions, focusing on front-end frameworks and static sites.

Website Development Tools

Tools	Examples	Description
Performance and Optimization Tools	Google PageSpeed Insights	Analyzes the content of a web page and generates suggestions to make it faster.
	GTmetrix	Provides insights on how well a website performs and offers recommendations for improvement.
	Lighthouse	An open-source, automated tool for improving the quality of web pages, with audits for performance, accessibility, and more.

Website Development Tools

Tools	Examples	Description
Testing Tools	Selenium	A portable framework for testing web applications across different browsers and platforms.
	Jest	A delightful JavaScript testing framework with a focus on simplicity.
	Cypress	A front-end testing tool built for the modern web, enabling fast, easy, and reliable testing for anything that runs in a browser.



Web Authoring Tools

- Web authoring tools are software applications that allow users to create and manage web content without necessarily needing to write code manually.
- These tools often provide a user-friendly interface and features that simplify the web development process.
- Web authoring tools are software applications designed to allow users to create and design web pages with minimal coding knowledge.

Web Authoring Features

WYSIWYG Interface

- "What You See Is What You Get" editors that allow users to design pages visually

Drag-and-Drop Functionality

- Users can easily add and arrange elements on a page.

Pre-designed Templates

- Access to a library of templates to simplify design.

Basic Coding Options

- Some ability to edit HTML/CSS code but often limited compared to full IDEs.

User-Friendly

- Designed for beginners and those with limited technical skills.

Web Authoring Tools

Tools	Description	Usage
Adobe Dreamweaver 	Offers a visual design surface (WYSIWYG) and a code editor with features like syntax highlighting, code completion, and real-time preview.	Suitable for both beginners and experienced developers, supports HTML, CSS, JavaScript, and other web technologies.
Microsoft Expression Web 	Provides WYSIWYG design tools and a code editor, supporting HTML5, CSS3, and various scripting languages.	Ideal for creating standards-based websites, offering tools for SEO and site management.

Web Authoring Tools

Tools	Description	Usage
BlueGriffon 	An open-source WYSIWYG editor that supports HTML5, CSS3, and various web technologies. Includes a CSS editor, SVG editor, and other web design tools.	Good for users who want a free and open-source solution for web authoring.
Wix 	A cloud-based development platform with a drag-and-drop interface, offering a variety of templates and design tools.	Great for beginners and small business owners who need to create a professional-looking website quickly and easily.

Web Authoring Tools

Tools	Description	Usage
WordPress (with Gutenberg Editor) 	A popular content management system (CMS) with a block-based editor (Gutenberg) for creating and managing website content.	Suitable for bloggers, businesses, and developers who need a flexible and extensible platform for web development.
Google Web Designer 	A free tool for creating interactive HTML5-based designs and motion graphics, with a WYSIWYG interface and code editor.	Ideal for creating ad banners, interactive content, and animations.

Comparison between Website Development and Web Authoring

Aspect	Web Authoring Tools	Website Development Software
Primary Function	Visual design and basic site creation	Full-spectrum web development (design, code, deploy)
User Interface	WYSIWYG, drag-and-drop	Code editors, IDEs
Coding Requirement	Minimal	Extensive
Complexity	Simplified	Advanced
Target Users	Beginners, small businesses, designers	Professional developers, development teams
Examples	Adobe Dreamweaver, Wix, Wordpress	Visual Studio Code, Sublime Text, WebStorm

Thank you

