WEB DEVELOPMENT BASIC

HTM, CSS JAVA SCRIPT

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INTRODUCTION

HTML, CSS, AND JAVASCRIPT ARE THE THREE CORE TECHNOLOGIES BEHIND WEB PAGES. HTML STRUCTURES THE CONTENT, CSS STYLES IT WITH LAYOUTS AND COLORS, AND JAVASCRIPT MAKES THE PAGE INTERACTIVE. TOGETHER, THEY CREATE MODERN, DYNAMIC, AND RESPONSIVE WEBSITES. LEARNING THESE TECHNOLOGIES IS ESSENTIAL FOR STUDENTS, DEVELOPERS, AND ANYONE INTERESTED IN WEB DEVELOPMENT. THIS PRESENTATION INTRODUCES EACH LANGUAGE, THEIR FEATURES, EXAMPLES, AND HOW THEY WORK TOGETHER TO BUILD PROFESSIONAL WEBSITES.

WHAT IS HTML

HTML STANDS FOR HYPERTEXT MARKUP LANGUAGE. IT IS NOT A PROGRAMMING LANGUAGE, BUT A MARKUP LANGUAGE THAT STRUCTURES THE CONTENT OF WEB PAGES. HTML USES TAGS TO DEFINE ELEMENTS LIKE HEADINGS, PARAGRAPHS, LINKS, IMAGES, TABLES, AND FORMS. EVERY WEBSITE YOU VISIT USES HTML AS THE FOUNDATION OF ITS CONTENT. WITHOUT HTML, BROWSERS WOULD HAVE NO WAY TO ORGANIZE AND DISPLAY TEXT, IMAGES, AND MULTIMEDIA ELEMENTS PROPERLY.

FEATURE OF HTML?

- TML IS SIMPLE AND EASY TO LEARN, MAKING IT IDEAL FOR BEGINNERS. IT IS
- PLATFORM-INDEPENDENT AND SUPPORTED BY ALL MAJOR BROWSERS. HTML
- SUPPORTS MULTIMEDIA LIKE IMAGES, AUDIO, AND VIDEO. IT ALLOWS THE CREATION OF
- HYPERLINKS, CONNECTING DOCUMENTS TOGETHER. HTML ALSO SUPPORTS FORMS FOR
- USER INPUT. BY COMBINING HTML WITH CSS AND JAVASCRIPT, DEVELOPERS CAN
- CREATE STRUCTURED, STYLED, AND INTERACTIVE WEBSITES, MAKING IT THE BACKBONE
- OF WEB DEVELOPMENT.

HTML EXAMPLE

```
H1>HELLO, WORLD!</H1>

<P>THIS IS MY FIRST WEBPAGE.</P>

<!DOCTYPE HTML>

<HTML>

<HEAD>

<TITLE>MY FIRST PAGE</TITLE>

</HEAD>

<BODY>

<H1>HELLO, WORLD!</H1>

<P>THIS IS MY FIRST WEBPAGE.</P>

</BODY>

</HTML>
```

WHAT IS CSS?

- CSS STANDS FOR CASCADING STYLE SHEETS. IT DESCRIBES HOW HTML ELEMENTS
- SHOULD BE DISPLAYED ON SCREEN, PAPER, OR OTHER MEDIA. CSS ENHANCES
- WEBPAGES WITH FONTS, COLORS, LAYOUTS, SPACING, AND ANIMATIONS. BY
- SEPARATING CONTENT FROM DESIGN, CSS MAKES WEB PAGES EASIER TO MANAGE
- AND UPDATE. IT SUPPORTS RESPONSIVE DESIGN, ENSURING THAT WEBSITES ADJUST TO
- DIFFERENT SCREEN SIZES, FROM DESKTOPS TO TABLETS AND SMARTPHONES, IMPROVING
- USER EXPERIENCE AND ACCESSIBILITY.

FEATURES OF CSS

- FROM PRESENTATION, ALLOWING CONTENT AND STYLE TO BE MANAGED

- INDEPENDENTLY. CSS SUPPORTS RESPONSIVE DESIGN THROUGH MEDIA QUERIES,

- ENSURING WEBSITES ADAPT ACROSS DEVICES. IT ENABLES TRANSITIONS,

- TRANSFORMATIONS, AND ANIMATIONS, ENHANCING VISUAL APPEAL. CSS CAN APPLY

- STYLES TO MULTIPLE PAGES AT ONCE USING EXTERNAL STYLESHEETS, ENSURING

- CONSISTENCY. ITS FEATURES HELP DEVELOPERS CREATE ATTRACTIVE, PROFESSIONAL, AND

- USER-FRIENDLY WEB EXPERIENCES.

CSS EXAMPLE

- H1 { COLOR: BLUE; TEXT-ALIGN: CENTER; }
- P { FONT-SIZE: 18PX; COLOR: GRAY; }
- H1 {
- COLOR: BLUE;
- TEXT-ALIGN: CENTER;
- }
- P {
- FONT-SIZE: 18PX;
- COLOR: GRAY;
- }

WHAT IS JAVASCRIPT?

- JAVASCRIPT IS A PROGRAMMING LANGUAGE THAT BRINGS INTERACTIVITY TO WEB

- PAGES. UNLIKE HTML AND CSS, WHICH DEFINE STRUCTURE AND STYLE,

- JAVASCRIPT ENABLES DYNAMIC BEHAVIOR. IT CAN RESPOND TO USER ACTIONS LIKE

- CLICKS, INPUT, AND SCROLLING. JAVASCRIPT IS USED FOR FORM VALIDATION,

- ANIMATIONS, INTERACTIVE MAPS, AND EVEN BUILDING FULL WEB APPLICATIONS.

- RUNNING DIRECTLY IN THE BROWSER, IT MAKES WEBSITES MORE ENGAGING,

- FUNCTIONAL, AND CAPABLE OF HANDLING REAL-TIME UPDATES EFFECTIVELY.

FEATURES OF JAVASCRIPT

- JAVASCRIPT IS LIGHTWEIGHT, INTERPRETED, AND EASY TO USE. IT SUPPORTS EVENT-
- DRIVEN PROGRAMMING, ALLOWING WEBSITES TO RESPOND TO USER ACTIONS.
- JAVASCRIPT IS PLATFORM-INDEPENDENT AND WORKS ACROSS ALL BROWSERS. IT
- INTEGRATES SEAMLESSLY WITH HTML AND CSS, ENABLING DYNAMIC UPDATES OF
- PAGE CONTENT. IT SUPPORTS OBJECT-ORIENTED FEATURES, MAKING IT VERSATILE FOR
- COMPLEX APPLICATIONS. WITH VAST LIBRARIES AND FRAMEWORKS LIKE REACT AND
- ANGULAR, JAVASCRIPT IS CRITICAL FOR MODERN, LARGE-SCALE WEB DEVELOPMENT.

JAVASCRIPT EXAMPLE

- DOCUMENT.QUERYSELECTOR('H1').ONCLICK = FUNCTION() {
- ALERT('YOU CLICKED THE HEADING!');
- }
- <!DOCTYPE HTML>
- <HTML>
- <HEAD>
- <TITLE>JAVASCRIPT EXAMPLE</TITLE>
- </HEAD>
- <BODY>
- <H1 ID="GREET">HELLO!</H1>
- <BUTTON ONCLICK="CHANGETEXT()">CLICK ME</BUTTON>
- <SCRIPT>
- FUNCTION CHANGETEXT() {
- DOCUMENT.GETELEMENTBYID("GREET").INNERHTML = "WELCOME TO JAVASCRIPT";
- }
- </SCRIPT>
- </BODY>
- □</HTML>

HOW THEY WORK TOGETHER

- HTML, CSS, AND JAVASCRIPT TOGETHER BUILD COMPLETE WEBSITES. HTML
- PROVIDES STRUCTURE, CSS HANDLES DESIGN, AND JAVASCRIPT ADDS INTERACTIVITY.
- FOR EXAMPLE, HTML CREATES A BUTTON, CSS STYLES IT WITH COLORS, AND
- JAVASCRIPT MAKES IT RESPOND TO CLICKS. WITHOUT ONE OF THESE, A WEBSITE IS
- INCOMPLETE. THIS POWERFUL COMBINATION ENSURES FUNCTIONALITY, BEAUTY, AND
- USABILITY. UNDERSTANDING THEIR RELATIONSHIP IS THE FOUNDATION FOR DEVELOPING
- MODERN, RESPONSIVE, AND USER-FRIENDLY WEB APPLICATIONS EFFEC

ADVANTAGE

- ☐MASTERING HTML, CSS, AND JAVASCRIPT OFFERS STRONG CAREER OPPORTUNITIES.
- THEY ARE THE FOUNDATION OF FRONT-END WEB DEVELOPMENT. WITH THESE SKILLS,
- DEVELOPERS CAN BUILD RESPONSIVE, INTERACTIVE WEBSITES, ESSENTIAL FOR
- BUSINESSES AND PERSONAL PROJECTS. THEY ALSO OPEN DOORS TO ADVANCED
- FRAMEWORKS AND LIBRARIES, ENABLING MOBILE APPS, PROGRESSIVE WEB APPS, AND
- COMPLEX PLATFORMS. LEARNING THESE TECHNOLOGIES BUILDS PROBLEM-SOLVING
- SKILLS, CREATIVITY, AND PREPARES INDIVIDUALS FOR EVOLVING OPPORTUNITIES IN THE
- TECH INDUSTRY.

ALL THERE TOGETHER

- ☐HTML BUILDS STRUCTURE.
- ☐CSS BEAUTIFIES.
- ☐JAVASCRIPT MAKES IT INTERACTIVE.

CONCLUSION

- HTML, CSS, AND JAVASCRIPT ARE THE PILLARS OF WEB DEVELOPMENT. HTML
- BUILDS THE STRUCTURE, CSS ENHANCES DESIGN, AND JAVASCRIPT POWERS
- INTERACTIVITY. TOGETHER, THEY CREATE THE MODERN WEB WE USE DAILY. MASTERING
- THESE LANGUAGES IS THE FIRST STEP TOWARD ADVANCED DEVELOPMENT WITH
- FRAMEWORKS, LIBRARIES, AND BACKEND TECHNOLOGIES. AS THE INTERNET EVOLVES,
- THESE THREE TECHNOLOGIES REMAIN INDISPENSABLE, ENSURING A STRONG
- FOUNDATION FOR DEVELOPERS AND SHAPING THE FUTURE OF DIGITAL COMMUNICATION
- WORLDWIDE.