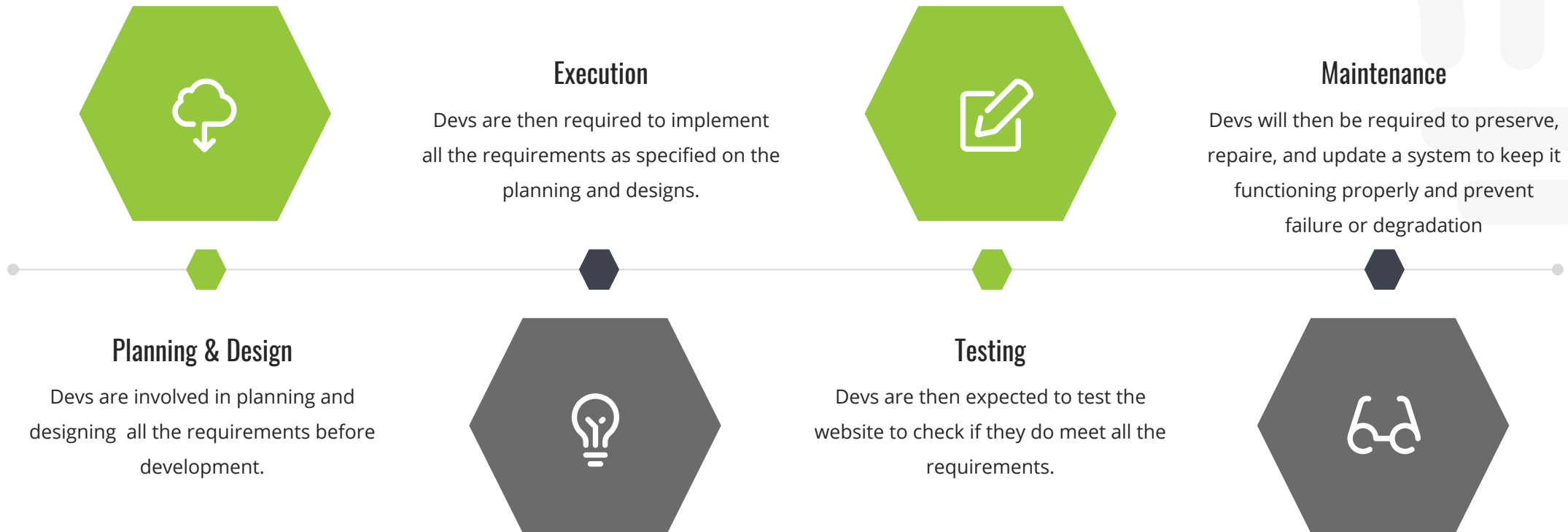# Intro to Web Dev

Codetribe Bootcamp 2023

mlab

What is Web Development?

Web Development is the art of planning, designing and creating websites/webapps for the internet. This is accomplished through the use of HTML, CSS and Javascript as primary languages.

Websites or webapps refers to all types of applications running through a web browser.

Web Developer
Role.

Execution

Devs are then required to implement all the requirements as specified on the planning and designs.

Maintenance

Devs will then be required to preserve, repaire, and update a system to keep it functioning properly and prevent failure or degradation

Planning & Design

Devs are involved in planning and designing all the requirements before development.

Testing

Devs are then expected to test the website to check if they do meet all the requirements.

Objectives
& Goals.

The objectives of the bootcamp are to enable participants to build a basic website, understand the basics of web development, and be able to continue learning on their own and mostly be eligible to be part of the CodeTribe Academy
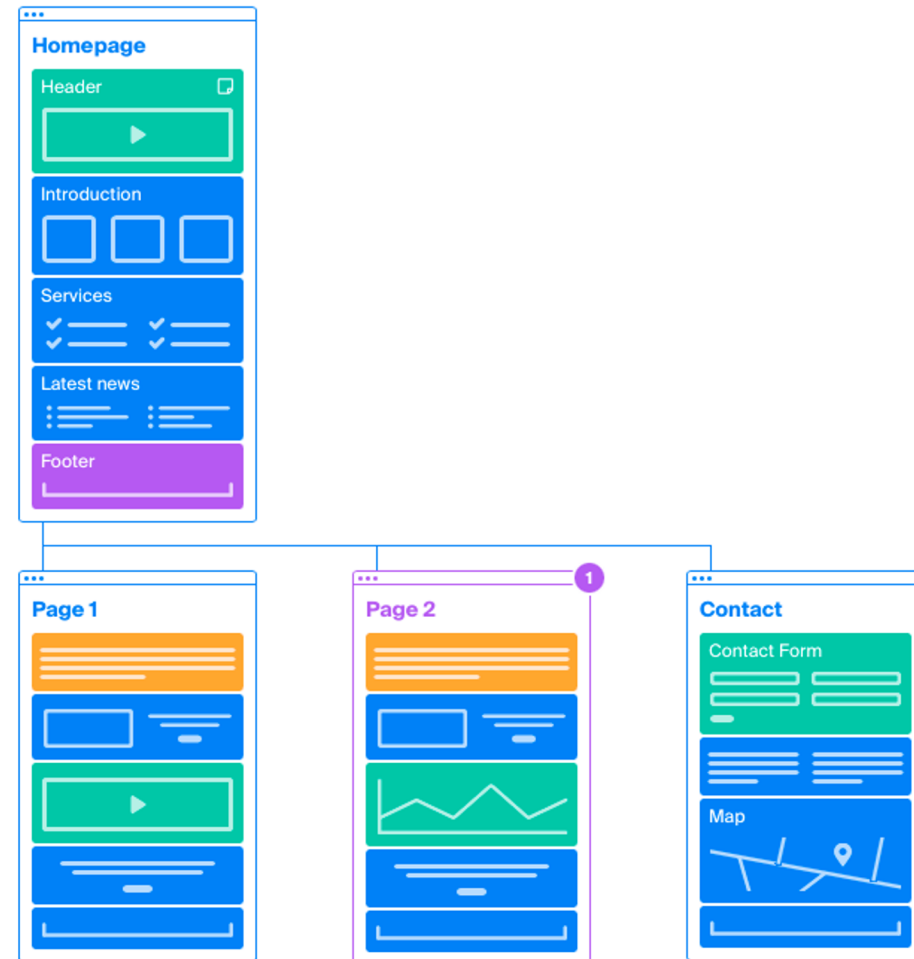
Website Structure.

- A website is composed of many files.
- HTML
    - These are ASCII text files. Most sites have many html files.
    - These html files may also include client-side scripting i.e Javascript.
- Image files(optional).
- Object files which includes multimedia files(Optional).
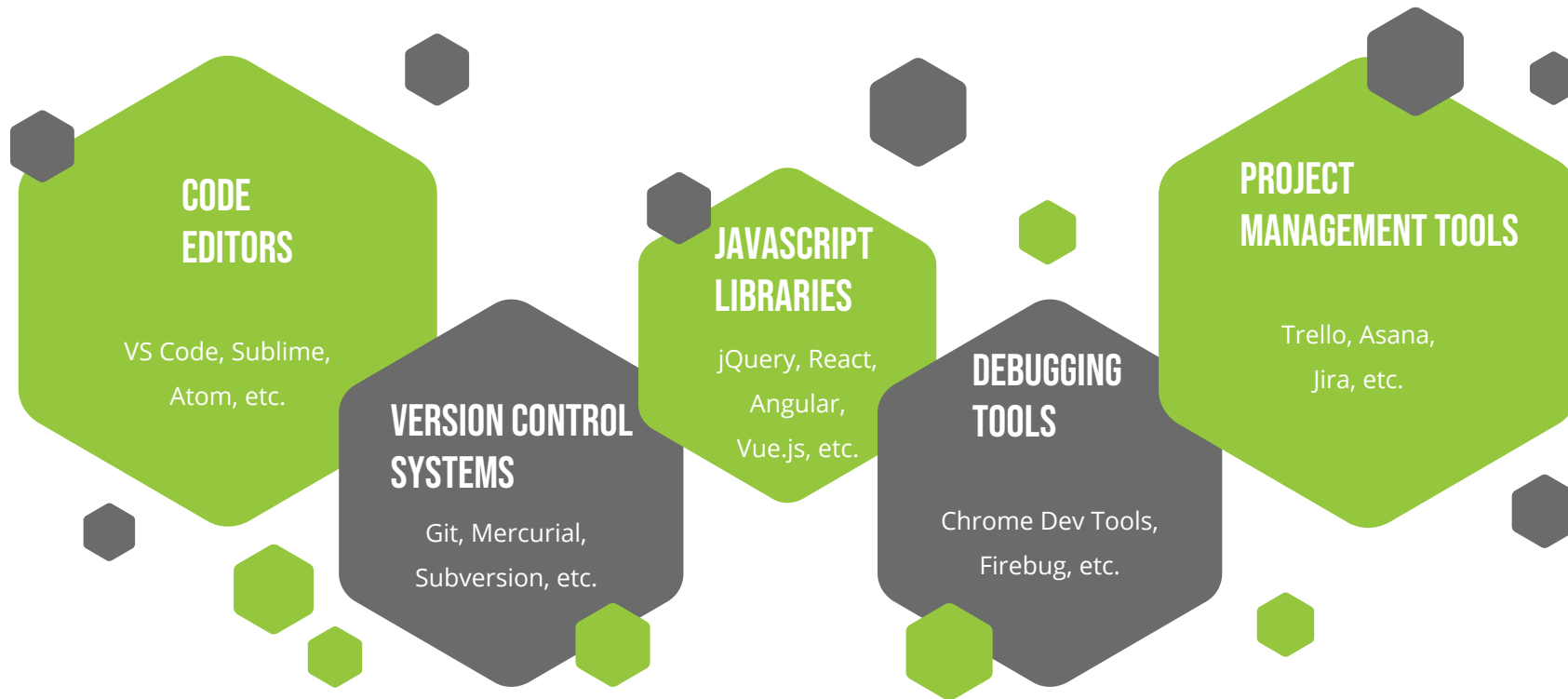- Server-side scripts(optional) for accessing databases such as ASP.NET, PHP, etc.

Website structure.

This is a typical website structure where index.html is the initial page of the all the website pages.

As you may be aware that the definition of the website is that, it is a collection of web pages. The depiction on the right clear outlines that.

Tools
of the trade.

CODE EDITORS

VS Code, Sublime, Atom, etc.

VERSION CONTROL SYSTEMS

Git, Mercurial, Subversion, etc.

JAVASCRIPT LIBRARIES

jQuery, React, Angular, Vue.js, etc.

DEBUGGING TOOLS

Chrome Dev Tools, Firebug, etc.

PROJECT MANAGEMENT TOOLS

Trello, Asana, Jira, etc.

Static vs
Dynamic Web pages.

A static web page is a type of web page that contains fixed content and does not change dynamically in response to user input or other events. The content of a static web page is the same for all users, regardless of who visits the page or when they visit it.

Static web pages are a simple way to display content on the web. They are also easier to build and maintain than dynamic web pages..

Overall, static web pages are a good choice for simple, informational websites, but for more complex sites or applications, dynamic web pages are often a better choice.

Dynamic web pages are a type of web page that can change dynamically in response to user input or other events, without requiring a page refresh. The content of a dynamic web page can be customized for each user, based on factors such as the user's location, preferences, or actions on the site.

Dynamic web pages are well-suited for websites or applications that require more interactivity or real-time updates. For example, e-commerce websites, social networking sites, and online gaming sites are often dynamic web pages.

Overall, dynamic web pages provide a more engaging and interactive experience for users, and are often a better choice for complex websites or applications that require real-time updates or customization. However, they are also more complex to build and maintain than static web pages, and may require a higher level of technical expertise.

The Importance of Responsive Design.

○ Responsive design allows your website to adapt across all devices sizes from phone, tablets/ipads, and desktops The Importance of Responsive Design.

○ User Experience: Responsive design ensures that users have a consistent and positive experience on your website, regardless of the device they are using. This can help increase user engagement and satisfaction.

○ Search Engine Optimization: Search engines, such as Google, favor responsive websites in their search results because they provide a better user experience. This can help improve your website's search engine ranking and visibility.

○ Accessibility: Responsive design makes your website accessible to users on all devices, including desktops, laptops, tablets, and smartphones. This can help increase the number of potential visitors to your site.

○ Cost-effective: Developing a separate website for each device type can be expensive and time-consuming. Responsive design allows you to create a single website that adjusts to different devices, saving you time and resources.

BUILDING A WEBSITE.

01. Define the Purpose and Goals

Determine the purpose and goals of the website, including target audience, content, and features.

02. Choose a Platform

Choose a platform or content management system (CMS) that best fits your needs, such as WordPress, Wix, or Squarespace but in our case we'll be using HTML, CSS and Javascript.

03. Design the Website

Decide on the layout, color scheme, and overall look and feel of the website. You can either hire a designer or use pre-made templates.

04. Choose a Domain Name and Hosting Provider:

Choose a domain name that is memorable and relevant to your website and select a hosting provider to host your website.

05. Develop the Website

Use HTML, CSS, and JavaScript to build the pages and functionality of your website. You can also use a platform or CMS that provides a drag-and-drop interface for creating pages.

06. Add Content

Add the content, including text, images, videos, and other media, to the pages of the website.

07. Test and Debug

Test the website to ensure it works as intended and fix any bugs or issues.

08. Launch the Website:

Publish the website and make it live on the internet.

09. Monitor and Maintain the Website

Regularly monitor the website and make updates and improvements as needed to keep it functioning properly and engaging to users.
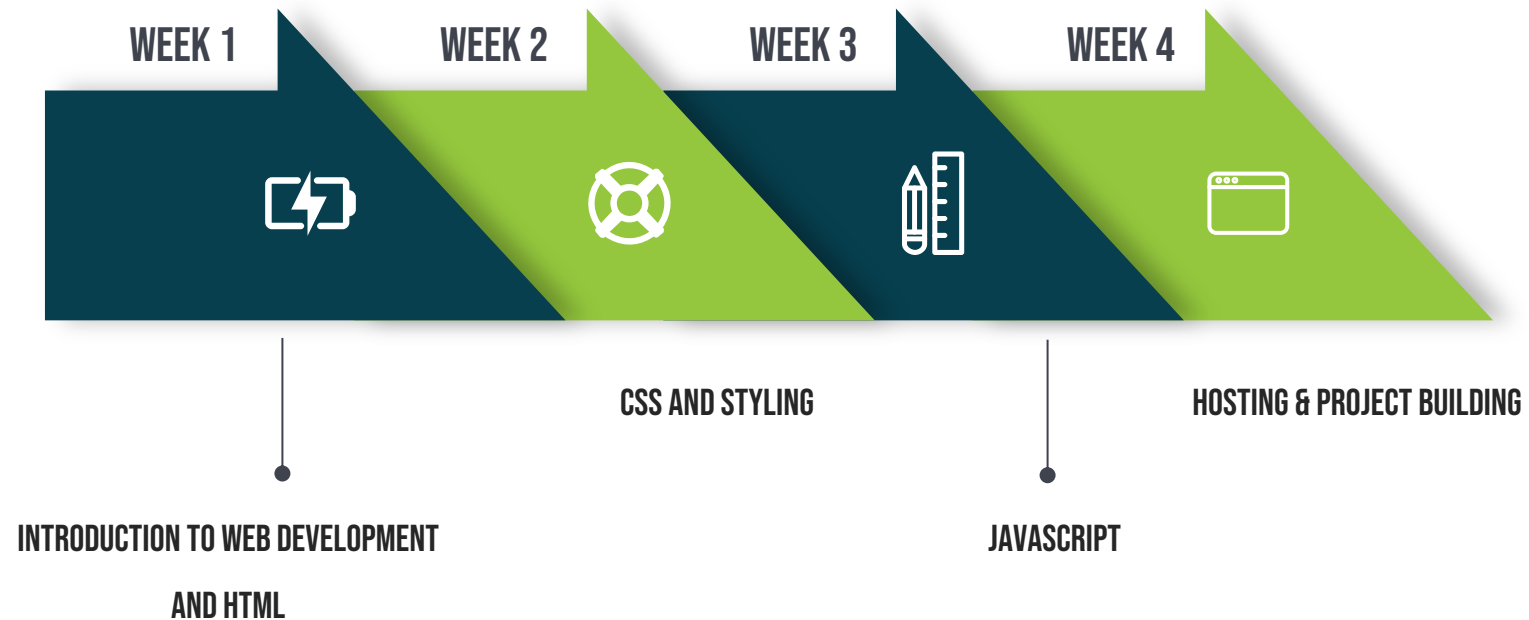
Practices for Web Development.

- Write clean, organized, and maintainable code.
- Use modern, up-to-date web technologies and frameworks.
- Implement responsive design to ensure a consistent user experience across different devices and screen sizes.
- Test and debug code thoroughly to ensure it works as intended and fix any issues.
- Use version control systems such as Git to manage and track changes to code.
- Implement strong security measures to protect sensitive information and prevent hacking and other cyber attacks.

- Use clear and concise naming conventions for files, directories, and variables.
- Plan and organize code in a modular and reusable manner.
- Optimize code and images to improve page load times and overall website performance.
- Collaborate with designers, project managers, and other stakeholders to define project requirements and implement effective solutions.
- Stay up-to-date with the latest web technologies and industry trends and continuously learn and improve your skills.
- Document code and processes to make it easier for others to understand and maintain in the future.

Timeline
project.

| WEEK 1 | WEEK 2 | WEEK 3 | WEEK 4 |

CSS AND STYLING

HOSTING & PROJECT BUILDING

INTRODUCTION TO WEB DEVELOPMENT

AND HTML

JAVASCRIPT

CONCLUSION.

In conclusion, the bootcamp will provided participants with a solid foundation in web development and the skills needed to build and maintain a website. To continue their learning journey and build on the skills learned in the bootcamp, participants are encouraged to continue practicing their skills, seek out additional resources, and collaborate with others in the web development community. The field of web development is constantly evolving, and ongoing learning and practice is essential for success in this dynamic and exciting industry.

"Learning never exhausts the mind." - Leonardo da Vinci