



TASKPHASE FOR WEB DEVELOPMENT AND GRAPHICS

For the Web Development and Graphics task phase, the focus will be on building a robust foundation in front-end and back-end development, coupled with a strong emphasis on visual design and branding. Over the next 2 to 2.5 months, this phase will be dedicated to mastering essential web technologies, from HTML, CSS, and JavaScript frameworks to server-side development and database management, ensuring participants gain a comprehensive understanding of how to create dynamic, responsive, and user-centric web applications. Concurrently, emphasis on graphic design skills, including layout, color theory, typography, and UX/UI principles, will allow participants to create visually engaging, functional interfaces. By the end of this phase, participants will be able to translate ideas into compelling, professional-grade digital products, integrating both technical proficiency and aesthetic appeal.

Week 1

- HTML Basics
- HTML Forms
- HTML Tables
- CSS Basics
- CSS Flexbox

MINI PROJECT:

- 1) Make a platform where students can discover and register for campus events, including workshops, seminars, and social gatherings.
- 2) Make an interactive event calendar using HTML tables. The calendar will display the days of the month in a table format and allow users to view and schedule events for specific dates.



RESOURCES

HTML (HYPERTEXT MARKUP LANGUAGE)

- Html for beginners for a crash course → Traversy Media
https://youtu.be/UB1030fR-EE?si=5P7RsC_708_2Judv
- Learn HTML-Full course for beginners (2022) ->freeCodeCamp (Detailed)
<https://youtu.be/kUMe1FH4CHE?si=04giM2M09zBticX0>

OR

- Complete HTML Tutorial in 1 Video in HINDI (2023) (If you prefer Hindi as the medium of instruction)
[Complete HTML Tutorial in 1 Video || in HINDI \(2023\) - YouTube](#)

CSS (CASCADING STYLE SHEETS)

- CSS Crash Course For Absolute Beginners → Traversy Media
<https://www.youtube.com/watch?v=yfoY53QXEnI.>

DOCUMENTATION

[W3Schools Online Web Tutorials](#)

[MDN Web Docs - Mozilla](#)



Week 2 & 3

- CSS Grid
- Media Queries
- Tailwind CSS
- JS Basics (Variables, Loops, Arrays Methods, Strings)

MINI PROJECT

Now we aim to enhance our existing project by implementing new concepts you came across this week and incorporating additional functionalities mentioned below to further improve its capabilities and user experience.

User Interface Enhancements:

Implement navigation controls to switch between months (previous/next buttons or dropdown menus). Provide a form or modal window to add or edit event details. Add features like event reminders, notifications, or color-coding for different types of events.

Responsiveness:

Apply responsive design principles to ensure the calendar displays well on different devices and screen sizes. Implement media queries or frameworks like Tailwind to create a mobile-friendly layout.

RESOURCES

CSS (CASCADING STYLE SHEETS)

- CSS Crash Course for absolute beginners ->Traversy Media

<https://www.youtube.com/watch?v=yfoY53QXEnI>.

- Flexbox crash course 2024 ->Traversy Media

<https://www.youtube.com/watch?v=3YW65K6LcIA>.



- CSS Grid:-> Net Ninja

<https://youtube.com/playlist?list=PL4cUxeGkcC9itC4TxYMzFCfveyutyPOCY&si=8ocksum1h2ETF7ak>

- CSS Grid Crash Course ->Traversy Media

<https://youtu.be/jV8B24rSN5o?si=234zAEipNHd9lDqx>

- Media Queries -> Learn CSS Media Query In 7 Minutes (WebDev Simplified)

<https://youtu.be/yU7jJ3NbPdA?si=S-epTCaga-ROSYyG>

- CSS Animations: - CSS Animation Tutorial (Net Ninja Playlist)

<https://youtube.com/playlist?list=PL4cUxeGkcC9iGYgmEd2dm3zAKzyCGDtM5&si=jlCHC0sVOWGiZT5f>

- CSS3 Animation & Transitions Crash Course (Traversy Media)

<https://youtu.be/zHUpX90NerM?si=uCcu3fHD3xQNjn1R>

JS (JAVA SCRIPT)

- JavaScript Crash Course for Beginners (Traversy Media)

<https://youtu.be/hdI2bq0jy3c?si=ApP9A8EPKA7WYmdl>

DOCUMENTATION

[W3Schools Online Web Tutorials](#)

[MDN Web Docs - Mozilla](#)



Week 4 & 5

- Basics of Canva
- Basics of Figma
- Making a website in Figma
- Learn UI Design

MINI PROJECT

In this project, we will explore the foundational tools and principles of design as we create an engaging user interface for a website.

User Interface Design: Begin by familiarizing yourself with the basics of Canva and Figma, two powerful design tools that enable you to create visually appealing graphics and layouts. Understand the core features of each platform, such as templates, layers, and design elements, which will aid in your design process.

Website Creation in Figma: Utilize Figma to design a website, focusing on layout, typography, and color schemes. Learn how to create wireframes and high-fidelity mock-ups, ensuring that your design is both functional and aesthetically pleasing. Incorporate UI design principles to enhance user experience, such as consistency, alignment, and intuitive navigation.

Final Touches: As you develop your website, apply the knowledge gained in UI design to refine your project, ensuring that it meets usability standards and appeals to your target audience. Experiment with various design techniques and iterate based on feedback to create a polished final product.



RESOURCES

- Get started with Canva for Beginners Tutorials Canva

https://youtube.com/playlist?list=PLATYfhN6gQz8GiTG_nUxVar8ycrt9hJxL&si=UnJWvchBclpl--QE

- New to Figma? Get started with "Figma for beginners" tutorial

https://youtube.com/playlist?list=PLXDU_eVOJT7QHLShNqIXL1Cgbxj7HlN4&si=QBSAdpAQ5pMQ83kD

- Figma tutorial for Beginners: Complete Website from Start to Finish (Flux Academy)

https://youtu.be/HZuk6Wkx_Eg?si=37N6xkjHPcMpAw0

- Learn UI Design (Gary Simon)

<https://www.coursera.org/learn/learn-ui-design?specialization=ui-design>



Week 6 & 7

- From Figma to Code
- Build a Space Travel Website
- Spotify clone using HTML, CSS and Java Script

MINI PROJECT

In this project, we will seamlessly transition from design to development, transforming your Figma prototypes into functional web applications through coding.

From Figma to Code: Begin by converting your Figma designs into clean, semantic HTML, ensuring that your code structure aligns with best practices. Focus on creating responsive layouts using CSS, maintaining visual fidelity across various devices and screen sizes. Explore how to leverage CSS frameworks if desired to expedite your development process.

Building a Space Travel Website: Create a captivating space travel website that showcases various destinations, upcoming missions, and booking options. Emphasize user engagement by incorporating eye-catching visuals, animations, and interactive elements, such as modals for detailed information and smooth scrolling. Consider adding a blog section or news updates to keep users informed about the latest developments in space travel.

Spotify Clone: Develop a Spotify clone using HTML, CSS, and JavaScript to provide users with a simplified music streaming experience. Implement essential features like music playback controls, dynamic playlists, and a search functionality for users to explore their favourite songs and artists. Focus on creating an intuitive user interface that mimics the Spotify aesthetic while ensuring smooth interactions and responsiveness.



RESOURCES

- From Figma to Code (Gary Simon)

<https://www.coursera.org/learn/from-figma-to-code>

- Build a Space Travel Website (Kevin Powell)

<https://www.coursera.org/learn/build-a-space-travel-website>

- Spotify clone using HTML, CSS and Java Script

<https://youtu.be/CYwEq1GdU4E?si=gxfAW4iGbnQ01ZZ8>



Week 8 & 9 (OPTIONAL)

- JS DOM Manipulation
- JS Objects and prototypes
- Asynchronous Java Script
- Introduction to ReactJS and Installation

MINI PROJECT

In this project, we will delve into core JavaScript concepts and transition into modern web development with ReactJS.

JS DOM Manipulation: Start by exploring JavaScript DOM manipulation techniques to dynamically interact with HTML elements. Learn how to select, modify, and delete elements in the DOM to create a more engaging user experience. Implement event listeners to respond to user actions and enhance interactivity on your web pages.

JS Objects and Prototypes: Gain a solid understanding of JavaScript objects and prototypes, focusing on how to create and manage objects using constructor functions and prototypes. Discover the principles of inheritance and how prototypes enable shared properties and methods, fostering better code organization and reusability.

Asynchronous JavaScript: Explore asynchronous JavaScript concepts, including callbacks, promises, and async/await syntax. Learn how to handle asynchronous operations effectively, enabling your applications to perform tasks like fetching data from APIs without blocking the main thread.

Introduction to ReactJS: Finally, transition to ReactJS by understanding its core concepts and installation process. Learn about components, state management, and the virtual DOM. Set up your development environment, and create your first React application, focusing on building reusable components that enhance maintainability and user experience.



RESOURCES

- Learn JavaScript - Full Course for Beginners (freeCodeCamp)

<https://www.youtube.com/watch?v=PkZNo7MFNFg>

- Namaste JavaScript (Akshay Saini)

<https://www.youtube.com/playlist?list=PLlasXeu85E9cQ32gLCvAvr9vNaUccPVNP>

- Namaste JavaScript 2 (Akshay Saini)

<https://www.youtube.com/playlist?list=PLlasXeu85E9eWOpw9jxHOQyGM RiBZ60aX>

- JavaScript DOM Tutorial

<https://www.youtube.com/playlist?list=PL4cUxeGkcC9gfoKa5la9dsdCNpuey2s-V>

- Object Oriented JavaScript

<https://www.youtube.com/playlist?list=PL4cUxeGkcC9i5yvDkJgt60vNVWffpblB7>

- Asynchronous JavaScript

<https://www.youtube.com/playlist?list=PL4cUxeGkcC9jx2TTZk3IGWKSbtugYdrLu>

- React JS Tutorials in Hindi

https://www.youtube.com/playlist?list=PLu0W_9lII9agx66oZnT6IyhCM IbUMNMdt



Week 10 (EITHER PROJECT 1 OR PROJECT 2)

PROJECT 1 – CALCULATOR

Your challenge is to build out a calculator app and get it looking as close to the design as possible. You can use any tools you like to help you complete the challenge. So, if you've got something you'd like to practice, feel free to give it a go. Your users should be able to:

- See the size of the elements adjust based on their device's screen size
- Perform mathematical operations like addition, subtraction, multiplication, and division
- Adjust the color theme based on their preference
- Bonus: Have their initial theme preference checked using `prefers-color-scheme` and have any additional changes saved in the browser. Download the project and go through the README.md file. This will provide further details about the project and help you get set up.

I have created a special starter pack for this project for you guys!

Download it and go through all the resources.

https://drive.google.com/drive/folders/1lpKQ0dS_tYa8RoZspznDeyda9_-yyrEw?usp=sharing



PROJECT 2 – JOB LISTINGS WITH FILTERING

Your challenge is to build out job listing with filtering. You can use any tools you like to help you complete the challenge. So, if you've got something you'd like to practice, feel free to give it a go.

We provide the data in a local data.json file, so you can use that to populate the content on the first load if you like. Your users should be able to:

- Filter job listings based on the categories selected
- View the optimal layout for the interface depending on their device's screen size
- See hover and focus states for all interactive elements on the page
- Download the starter code. This will provide further details about the project.
- Design file is also provided just for reference but none of the project should be same of the design file, they are just for reference (unlike previous project).

I have created a special starter pack for this project for you guys!

Download it and go through all the resources.

https://drive.google.com/drive/folders/1SyG3-Oy00R_adT_bTXtpWWtE9FBksELL?usp=sharing

***** THE END *****

"Build, break, learn, repeat."