



Digital Clock

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**•Technologies Used: HTML,
CSS,JAVASCRIPT**

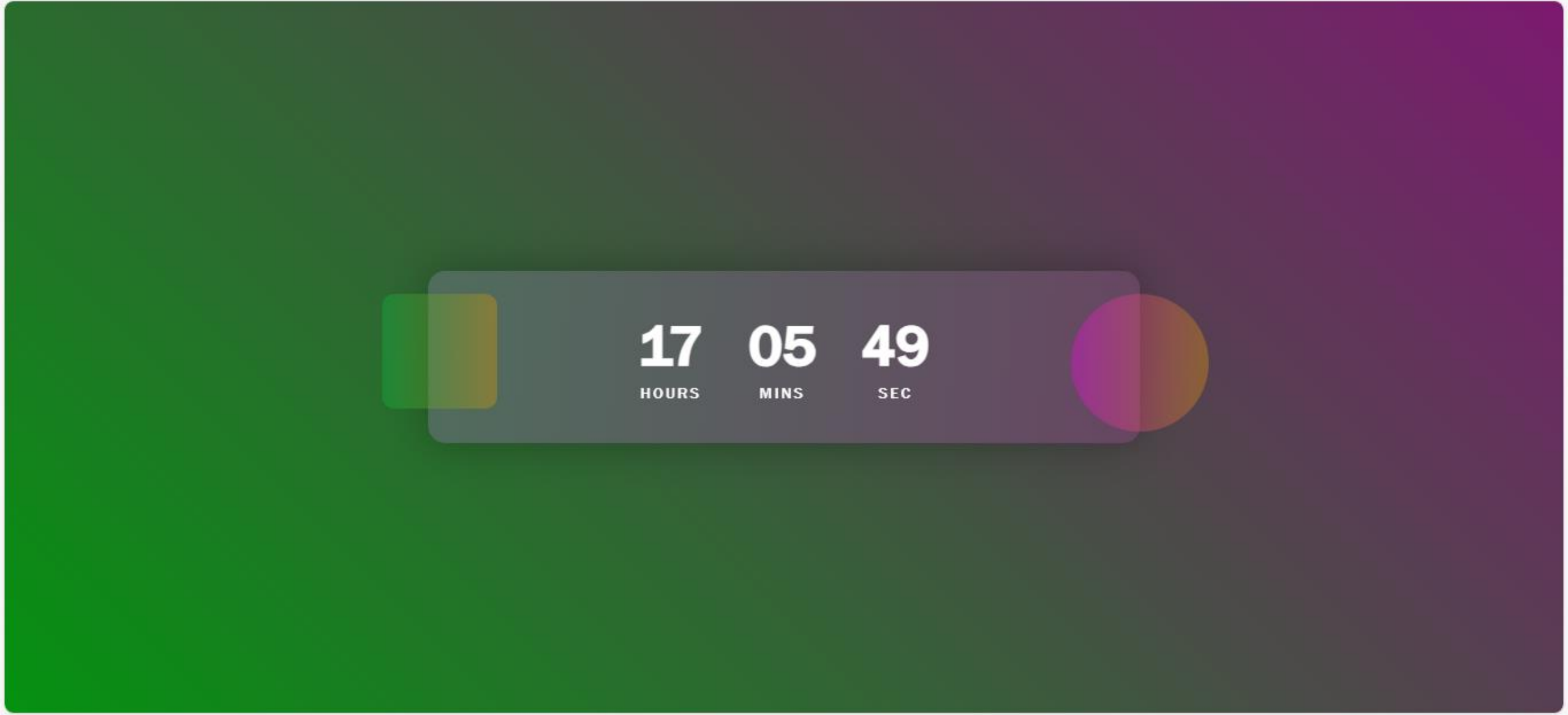


Introduction



Introduction

- ❖ • The Digital Clock is a web-based application built using HTML, CSS, and JavaScript.
- ❖ • Displays the current time in hours, minutes, and seconds.
- ❖ • Automatically updates every second using `setInterval()`.



A graphic for 'Project Overview' featuring a light blue square background. A purple-to-pink gradient blob is centered, with a dark purple outline that loops around it. Two white starburst icons are placed on the blob, one in the upper left and one in the lower right. The text 'Project Overview' is written in white, bold, sans-serif font across the middle of the blob.

Project Overview

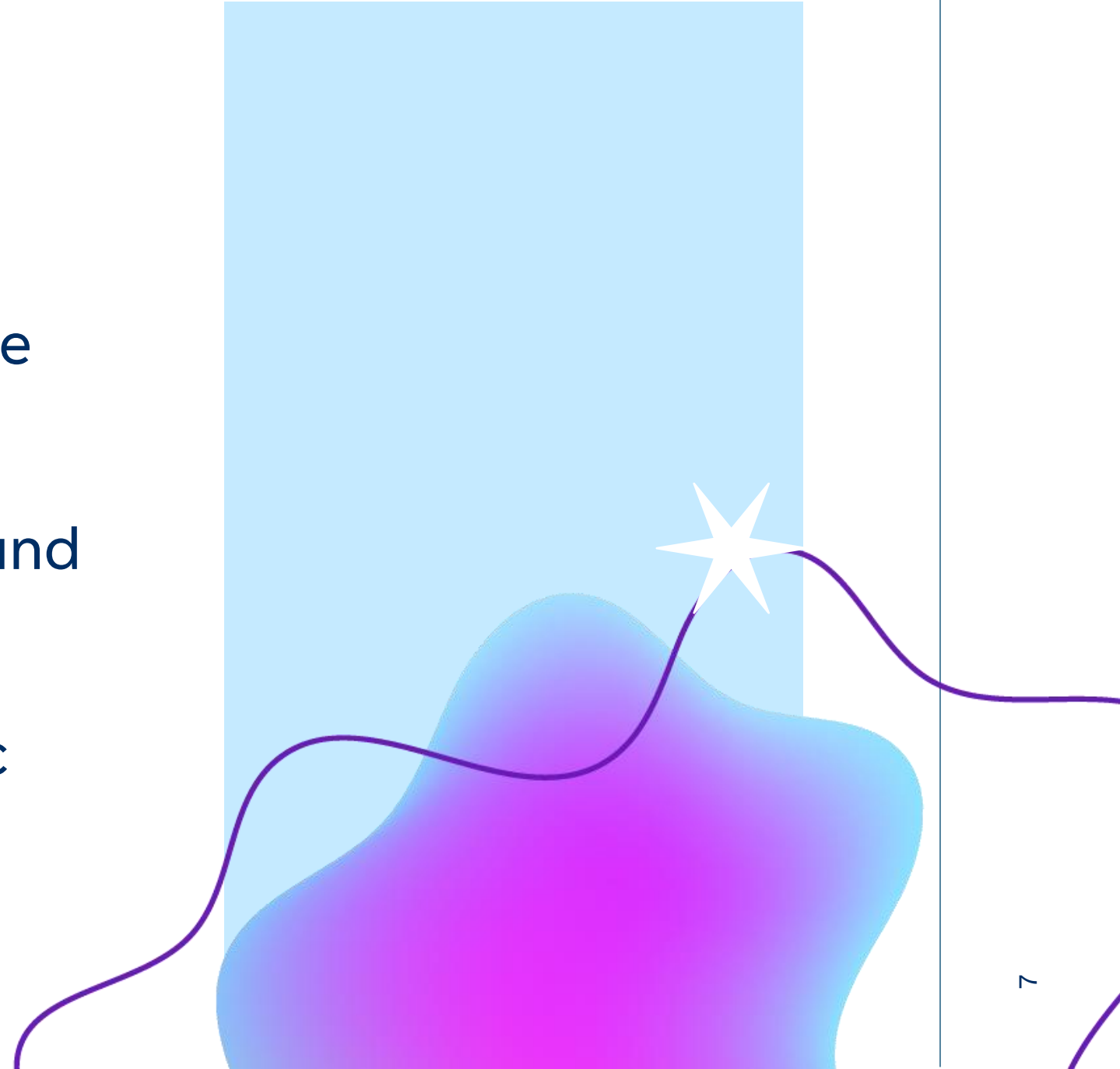
- ❖ • Create a real-time digital clock.
- ❖ • Use JavaScript Date object to fetch system time.
- ❖ • Develop a clean and modern UI using CSS.
- ❖ • Allow customization (12/24 hour format, AM/PM, date display).

- ❖ • Real-time time update.
- ❖ • 12-hour or 24-hour format.
- ❖ • Optional AM/PM display.
- ❖ • Optionally show date and day.
- ❖ • Fully responsive design.
- ❖ • Lightweight and fast.



Technology Stack

- ❖ • HTML – Structure of the clock.
- ❖ • CSS – Styling, layout, and responsiveness.
- ❖ • JavaScript – Time logic using Date object + setInterval().



Working Principle

- ❖ • JavaScript Date object retrieves system time.
- ❖ • setInterval() refreshes the clock every second.
- ❖ • Time is formatted using string manipulation.
- ❖ • Styled visually using CSS for attractive display.



Code Structure

- ❖ 1. `index.html` – Contains the clock container.
- ❖ 2. `style.css` – Defines colors, fonts, and layout.
- ❖ 3. `script.js` – Handles time calculation and updating.



Development Steps

- ❖ 1. Create HTML structure for the digital clock.
- ❖ 2. Design the UI using CSS.
- ❖ 3. Write JavaScript to fetch and format current time.
- ❖ 4. Use `setInterval()` to update the clock every second.
- ❖ 5. Add optional features: AM/PM, date, day.
- ❖ 6. Test across browsers and screen sizes.



Customization Options

- ❖ • Change theme colors.
- ❖ • Add background gradients.
- ❖ • Include day/date display.
- ❖ • Add animations for transitions.
- ❖ • Switch between 12-hour & 24-hour formats.



Testing

- ❖ • Cross-browser testing.
- ❖ • Mobile responsiveness testing.
- ❖ • Time accuracy verification.
- ❖ • Performance check for smooth updates.

- MDN Web Docs – Date Object**

Used to understand how JavaScript retrieves the current system time.

https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Date

- W3Schools – JavaScript setInterval()**

Helped in updating the time every second.

https://www.w3schools.com/jsref/met_win_setinterval.asp

- W3Schools – HTML & CSS Basics**

Used for creating the layout, styling the clock, and applying fonts.

<https://www.w3schools.com/html/>

<https://www.w3schools.com/css/>

- Google Fonts**

Used for selecting attractive fonts for the clock display.

<https://fonts.google.com/>



References



Thank You