🌍 Earth: A Time Machine

Hackathon Project Documentation

📑 Index

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1. 🔰 Introduction

“Earth: A Time Machine” is a web-based project developed during a time-limited hackathon, where creativity and clarity were the primary focus. The project takes users through a virtual journey across the **timeline of Earth** — from its humble, green origins to its complex present, and toward a futuristic vision.

The aim was to create an **interactive, visually appealing, and educational** platform that draws attention to the **climate narrative** in a storybook-like fashion — and to do so without JavaScript, relying solely on HTML and CSS.

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2. 🎯 Objectives & Motivation

- **To raise awareness** about Earth's environmental status across time.
- **To visualize storytelling** through clean, responsive UI design.
- **To explore the power of pure HTML & CSS** in creating engaging user experiences.
- **To deliver meaningful impact** with minimal technical dependencies.

The idea was born from a shared concern for climate change and a desire to **translate that concern into creativity** using web technology. We believe design can inspire action

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3. 🌐 Project Overview

This website mimics the structure of a **time capsule** or an **interactive book**, giving users access to three core timelines:

- 🕰️ **Past** – When Earth thrived in balance.
- 🕒 **Present** – Where we stand amidst beauty and threat.
- 🕗 **Future** – A vision shaped by innovation and restoration.

Each timeline is given a dedicated page, and the user can explore these by navigating through a beautifully designed **landing page**. The site emphasizes **clean content layout**, **immersive imagery**, and **responsive storytelling**.

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4. 📄 Page Breakdown

🔹 A) Landing Page

- **Theme:** Black and white with a translucent video background.
- **Content:** A short intro, logo, and three primary call-to-action buttons.
- **Navigation:** Fixed header with links to *About the Mission* and *Get in Touch*.
- **Design Focus:** Hero video (looping), interactive buttons, and animated layout.

- **B) Past Page**
  - **Color Theme:** Light green to convey peace and abundance.
  - **Sections Include:**
    - The planet's birth and ancient atmosphere
    - Rise of natural landscapes, forests, oceans
    - Evolution of species and early civilizations
  - **Visuals:** Forests, rivers, ancient monuments, tribal life
  - **Tone:** Calm, informative, historically rich

- **C) Present Page**
  - **Color Theme:** Deep shades of **blue and black** representing contrast and urgency.
  - **Sections:**
    1. **Nature's Wonders:** Coral reefs, rainforests fighting extinction
    2. **Human Footprint:** Overpopulation, pollution, deforestation
    3. **Climate Crisis:** Floods, fires, and melting ice caps
    4. **Innovation & Action:** Renewable energy, activism, technology
    5. **Underwater Life:** Marine biodiversity, plastic pollution
    6. **Air Quality:** Urban smog, respiratory impacts, solutions
  - **Structure:** Alternating section styles — one text between two images, next image between two texts, repeating
  - **Visuals:** Coral reefs, wildfires, solar panels, smog cities

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- **D) Future Page**
  - **Color Theme:** Futuristic purples, glowing whites
  - **Vision Sections:**
    - Sustainable urban development

    - Smart agriculture, vertical farms
    - Space exploration and off-Earth habitats
    - Climate restoration technologies
- **Message:** It’s not too late — if we act now
- **Visuals:** AI-powered cities, Mars domes, green tech labs

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🔹 **E) About & Contact Pages**

- **About:** Project vision, team details, tech used, hackathon journey
- **Contact:** Email/contact form mockup with social links

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5. 🖌️ Design & User Experience

✳️ **Visual Themes:**

- **Black:** Serious tone and high contrast
- **Blue (Present):** Depth, technology, seriousness
- **Green (Past):** Calm, nature
- **Purple (Future):** Imagination, innovation

🔲 **Layout:**

- Flexbox-based responsive layout
- Mobile-first design approach
- Fixed header ensures navigation remains available
- Image+Text alternation increases engagement and avoids visual fatigue

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6. ⚙️ Technical Specifications

- **Languages Used:** HTML5, CSS3 (no JS or frameworks)
- **Editor Used:** VS Code
- **Deployment Ready:** Lightweight and can be hosted on GitHub Pages or Netlify
- **Video Handling:**
    - <video> tag with loop, autoplay, muted
    - object-fit: cover to ensure proper responsiveness

💾 File Structure

Project Root

├— index.html

├— past.html

├— present.html

├— future.html

├— about.html

├— contact.html

├— /images

| └— (all section images)

├— /videos

| └— intro.mp4

├— /css

| └— shared.css

| └— present.css

└— favicon (GIF)

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7. 🚧 Challenges & Solutions

Challenge	Solution
Responsive background video overlapping text	Used z-index, object-fit, and overlay masks
Maintaining theme across pages	Built a modular, reusable CSS structure
No JS animations allowed	Used CSS transitions, shadows, gradients
File size concerns (video & images)	Compressed video and optimized images
No team coordination tools in hackathon	Used GitHub collaboratively with clear commits

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8. 🌱 Future Scope

- Adding JavaScript for animations and form validation
- Hosting it as an interactive educational platform
- Using APIs to fetch real-time climate data (AQI, temperature)
- Adding multi-language support
- Adding quiz/game section for kids

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9. ✅ Conclusion

This project is a blend of **web design, creativity, and environmental awareness**. It shows how even a basic tech stack can be leveraged to tell powerful stories when driven by purpose. We believe **climate awareness starts with understanding**, and this site hopes to plant that seed.

"**Earth: A Time Machine**" is more than a submission — it's a **vision for impact through code**.