Developer Document – Portfolio Website

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Program: Interactive Media Design
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1. Project Overview

For this term I'm building my professional portfolio website. It will be the main place for people to learn about me, explore my skills, and see my work. I designed the wireframe to be fun and interactive, while still keeping it simple so it's easy to navigate. I want the site to feel like where it all begins: playful and kid-like, with interactive elements that invite people to explore each page, while still showing my technical skills and creativity.

Goals

1. Showcase all my creative work in one place
   My portfolio will be the central hub for my design, development, motion, and 3D projects. Instead of spreading my work across different platforms, everything will be collected here in one interactive space.
2. Reach employers and potential clients
   This site is not just for class usage or submission, it's meant to be professional and useful beyond school. Employers and clients will be able to quickly see who I am, what I do, and why I'd be a strong fit for their team or project.
3. Demonstrate technical skills through the build itself
   The site will act as proof of my skills, using HTML, SCSS, JavaScript, GSAP, PHP, and MySQL. It's not only a showcase of my work, but also a technical project that highlights both design and development abilities.
4. Create a playful yet professional online identity
   My portfolio is designed with a kid-like sense of interactivity to make it feel fun and approachable, while still keeping a clean and professional structure. My brand identity, pastel colors, simple layouts, and consistent typography, will reflect both my creativity and professionalism.
5. Build something that can grow with me
   This portfolio won't end with this course. It's designed to expand as I add more projects, refine my skills, and possibly include future sections like achievements, blogs and testimonials.

Objectives

1. Show 3–4 strong work pieces with process and results
   Each project will include not only the final outcome but also the steps behind it—tools, choices, and workflow, to give insight into my creative process.

2. Create an animated name intro linked to my demo reel
   My name animation will appear on the homepage and also connect to my demo reel. It will create a consistent and engaging introduction across both the site and video, while also previewing my featured works inside the reel. This gives viewers a shortcut to explore my projects in a more dynamic way.
3. Use animations to enhance, not overwhelm
   I'll use GSAP for small animations like fade-ins and project cards appearing one by one. These will make the site feel more dynamic while keeping the focus on the content.
4. Keep the design consistent with my personal brand
   Fonts, colors, and icons will follow my established brand guidelines to maintain consistency. This ensures that the site feels polished, recognizable, and aligned with my creative identity.
5. Ensure full responsiveness
   The site will be tested on multiple screen sizes to confirm that it looks and works properly across desktop, tablet, and mobile. Navigation, layout, and animations will adapt for a seamless user experience.

2. Technical Documentation

2.1 Tech Stack

- **Frontend:** HTML5, CSS3 (SCSS), JavaScript, GSAP
- **Backend:** PHP
- **Database:** MySQL
- **Version Control:** GitHub

2.2 System Architecture

The site will include both static and dynamic sections.

- Static Pages: Home, About, Contact
- Dynamic Pages (PHP + MySQL):
    - Work → content pulled from the database
    - Contact → form submissions saved or emailed
    - Testimonials/Blogs → optional addition later

3. Sitemap

- **Home:** Hero section with name intro + featured work
- **About:** Bio, skills, resume download
- **Work:** Dynamic gallery loaded from MySQL
- **Contact:** Form powered by PHP + MySQL
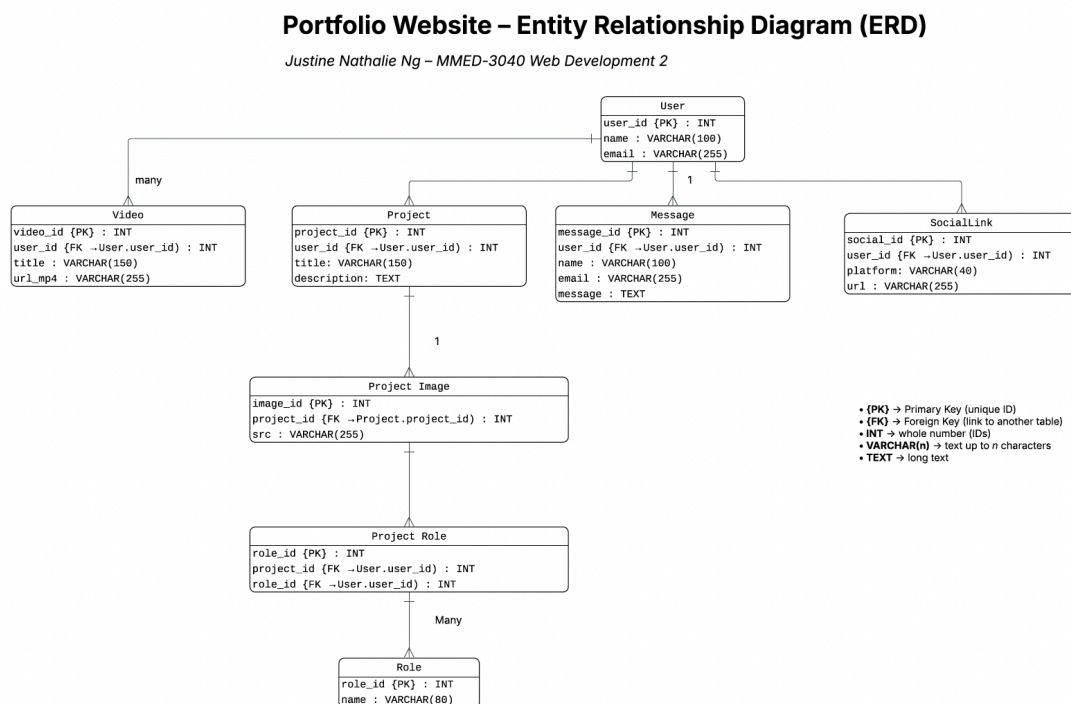- **Optional:** Blog, Testimonials, or Services

4. ERD Diagram

Entities:

- Users (Admin login)
- Work (Title, Description, Image, Link)
- Messages (Name, Email, Message, Date)

Relationships:

- One user → many work entries
- One user → many messages

Portfolio Website – Entity Relationship Diagram (ERD)

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```
                                              User
                                   user_id {PK} : INT
                                   name : VARCHAR(100)
                                   email : VARCHAR(255)
         many                                                    1

    Video                    Project                Message                    SocialLink
video_id {PK} : INT     project_id {PK} : INT    message_id {PK} : INT    social_id {PK} : INT
user_id {FK →User.user_id} : INT  user_id {FK →User.user_id} : INT  user_id {FK →User.user_id} : INT  user_id {FK →User.user_id} : INT
title : VARCHAR(150)    title: VARCHAR(150)      name : VARCHAR(100)      platform: VARCHAR(40)
url_mp4 : VARCHAR(255)  description: TEXT        email : VARCHAR(255)     url : VARCHAR(255)
                                                 message : TEXT

                                  1

                            Project Image
                        image_id {PK} : INT                        • {PK} → Primary Key (unique ID)
                        project_id {FK →Project.project_id} : INT  • {FK} → Foreign Key (link to another table)
                        src : VARCHAR(255)                         • INT → whole number (IDs)
                                                                   • VARCHAR(n) → text up to n characters
                                                                   • TEXT → long text

                            Project Role
                        role_id {PK} : INT
                        project_id {FK →User.user_id} : INT
                        role_id {FK →User.user_id} : INT

                                  Many

                                Role
                            role_id {PK} : INT
                            name : VARCHAR(80)
```

5. Page Structure

I plan to use a multi-page site.

- Home, About, Work, and Contact will each have their own page.
- Work and Contact will use PHP and MySQL.
- Navigation links will connect all pages.

6. GSAP Animations

I'll use GSAP to add small effects that make the site more interactive:

- Nav links scroll smoothly instead of jumping
- Logo animates in on the homepage
- Sections fade in as you scroll
- Work cards appear one by one

- Hero background shifts slightly for movement

7. JavaScript / Interactivity

JavaScript will handle all the interactive parts of the site:

- Navigation – Smooth scrolling, animated mobile menu
- Hero Section – Name and tagline animate on page load
- Scroll Effects – Sections fade in while scrolling
- Work Section – Cards appear one by one, opens larger on click; image sliders/carousels inside each project
- Hover Effects – Cards react on hover (zoom or color change)
- Contact Form – Validates info before sending
- Demo Reel – Custom video player with play/pause controls
- Skills and About Section - Drag-and-drop interactions; info cards slide in with details

**Logo Animation

The logo will animate with separate pieces sliding and connecting together.

Reference:

GSAP Timeline Docs: https://gsap.com/docs/v3/GSAP/Timeline/

CodePen (logo animation with GSAP): https://codepen.io/sonAndrew/pen/GRKvdqa