**A white background with black dots

Description automatically generated**

**Portfolio Website for Developers**

Graduation project for Digital Egypt Pioneers Initiative - DEPI · Internship

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**Introduction**

This project is a graduation requirement for the **Digital Egypt Pioneers** scholarship program, designed to demonstrate our skills and knowledge in building a responsive and modern website. We were given several options to choose from for our final project, and we selected the development of a portfolio website for **Osama Elzero**, a well-known public figure and the creator of the **Elzero Web School** YouTube channel.

We chose this project because it offers an ideal combination of simplicity in page structure and flexibility in dividing tasks among team members. The goal of this project is to create a professional and visually appealing portfolio that highlights Osama Elzero’s career, expertise, and impact on the web development community, especially in the MENA region.

The tools and technologies used in this project include:

* **HTML5 & CSS3**
* **JavaScript**
* **Bootstrap**
* **TypeScript**
* **Angular (JavaScript Framework)**
* **Version Control (Git, GitHub)**
* **Responsive Design**
* **UX/UI Design**

Our team has divided the website into multiple sections to cover various aspects of Osama Elzero’s work and achievements. The main sections include:

* Navbar
* Hero Section (Homepage)
* About Me
* Work Experience
* Courses & Educational Content
* Impact in the MENA Region
* Channel overview
* Skills
* Speaking's and engagements
* Blogs and resources
* Testimonials
* Contact & Social Media
* Call to Action (End)

This project will showcase our ability to apply best practices in frontend development, including responsive design, user experience (UX), and collaboration through version control.

**Technologies Used**

This project utilizes a variety of modern web development technologies to build a responsive and interactive portfolio website. The key technologies used include:

* **HTML5 & CSS3**: Used to structure and style the content of the website, ensuring a clean and modern design.
* **Bootstrap**: A responsive framework used for building the layout and ensuring the website is mobile-friendly across different screen sizes.
* **TypeScript**: Adds static typing to JavaScript, helping to catch potential errors early and improve code maintainability.
* **Angular**: A powerful JavaScript framework used for building dynamic single-page applications (SPAs) with modular components and data binding.
* **GSAP (GreenSock Animation Platform)**: Utilized for creating high-performance animations, enabling smooth and complex motion effects that enhance the visual appeal of the website.
* **AOS (Animate On Scroll)**: Implements scroll-based animations, allowing elements to animate into view as the user scrolls down the page, thereby improving user engagement.
* **Version Control (Git, GitHub)**: Utilized for tracking changes in the codebase, enabling collaboration among team members and maintaining different versions of the project.

**Project Structure**

**Installation and Usage**

Follow these steps to install and run the project on your local machine:

**Prerequisites**

Before starting, ensure you have the following installed on your machine:

* **Node.js** and **npm** (Node Package Manager)
* **Git** (for version control)
* A code editor (e.g., **Visual Studio Code**)

**Installation**

1. **Clone the repository:**

Open your terminal or command prompt and run the following command to clone the project repository from GitHub:

git clone https://github.com/DEPI-FrontEnd-team/DEPI-Final-Project.git

1. **Navigate to the project directory:**

Once the repository is cloned, navigate to the project folder:

cd DEPI-Final-Project

1. **Install dependencies:**

Run the following command to install all required packages:

npm install

This will install all the dependencies listed in the package.json file, including Angular, Bootstrap, GSAP, AOS, and other required libraries.

**Running the Project**

1. **Start the development server:**

To run the project locally, use the following command:

ng serve

This will start the Angular development server. Once it's up and running, open your browser and go to http://localhost:4200 to view the website.

1. **Building the project:**

To create a production build of the project, use the following command:

ng build --prod

This will generate optimized files in the dist/ folder, which can be deployed to a live server.

**Usage**

* After running the server, the portfolio website should be accessible on http://localhost:4200.
* You can navigate through different sections (Hero Section, About Me, Courses, Testimonials, etc.) and test the animations powered by **GSAP** and **AOS**.
* The website is responsive, so feel free to test it on different devices and screen sizes.

**Features**

**1. Responsive Design**

* The website is fully responsive, adapting seamlessly to various screen sizes, including desktops, tablets, and smartphones.
* We utilized **Bootstrap** and **media queries** to ensure the design looks great on all devices.

**2. Smooth Animations**

* Using **GSAP (GreenSock Animation Platform)** and **AOS (Animate On Scroll)**, the website includes smooth animations to enhance user engagement.
* Elements animate as the user scrolls, providing a dynamic and interactive experience.

**3. Call to Action**

* A **Call to Action (CTA)** section is included to encourage users to connect or follow Osama Elzero’s content and social media.
* This section is designed to be visually compelling and user-friendly.

**4. SEO-Friendly**

* The website is optimized for search engines, ensuring that it ranks well on platforms like Google.
* We implemented proper **meta tags**, **descriptive URLs**, and **alt attributes** for images to improve SEO performance.

**5. User-Friendly Navigation**

* The **navbar** is designed to make it easy for users to navigate through different sections.
* The sticky navigation bar allows users to access any part of the website quickly, even as they scroll down the page.

**Contributors & References**

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| --- | --- |
| **Component(section)** | **Members** |
| Navbar | Paul Emil Subhi. |
| Home | Paul Emil Subhi. |
| About | Paul Emil Subhi. |
| Work experience | Yousef Mohsen Yousef. |
| Courses | Galal Ahmed Galal, Paul Emil Subhi. |
| Impact on the MENA  Region | Galal Ahmed Galal, Paul Emil Subhi. |
| Channel overview | Yousef Mohsen Yousef. |
| Skills | Mahmoud Mahdy Abd El Moneam. |
| Speaking's and engagements | Yousef Mohsen Youssef. |
| Blogs and resources | Hasan Mohammed Saed, Yousef Mohsen Yousef. |
| Testimonials | Paul Emil Subhi, Hasan Mohammed Saed. |
| Contact | Paul Emil Subhi, Mark Atef Aowd. |
| Call to action | Paul Emil Subhi. |

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| **Reference** | **Link** |
| Angular | <https://angular.dev/overview> |
| AOS | <https://michalsnik.github.io/aos/>  <https://github.com/michalsnik/aos> |
| GSAP | <https://gsap.com/docs/v3/> |
| Bootstrap | [Get started with Bootstrap · Bootstrap v5.3](https://getbootstrap.com/docs/5.3/getting-started/introduction/) |
| View-stats | <https://www.viewstats.com/> |
| أكاديمية الزيرو | <https://elzero.org/> |
| Elzero Web School | <https://www.youtube.com/@ElzeroWebSchool> |

**Components overview**

1. **Navbar:**

**The navbar consists of 6 fragments, a logo, 4 navigation buttons and a button.**

It’s fully responsive and unique, when on extra large screen it’s wide and clear And very easy to use, when the window get’s into tablet size or the user scrolls to a certain screen height and shrinks to a small, aero-themed style with an animations to smooth out the transition, in mobile sizes it shrinks more to a default standard style mobile navbar with navigations only accessible when the user clicks on the burger button, when the user clicks on the more menu button it’s shows a larger tab covering the screen with the navigation item’s.

**Animations** were designed and implemented by Paul Emil.

**Difficulties encountered** there were many problems regarding the animations and how to apply it using CSS transforms and the GSAP library, also faced a bit of a problem with the responsiveness and had to implement some JavaScript code to get the window inner width since I couldn’t do with it with CSS.

2. **Home**:

The section starts with an introduction text and Osama’s branding text ‘El zero’, behind a picture of him, the three elements are in brighter colors to help with the clarity of the content.

**Animations**: It starts with a basic load up animation, where the start gets smaller from the user view rotating to sit in a place above ‘Hello I’m’ text, then both texts begin to appear from the bottom starting with low opacity and moving up to their places with full opacity, then the photo does the same and the text behind it also. The second animation is done with JavaScript. It ensures smooth tracking since when the user is on tablet or mobile, making the header text above the picture and keeping the branding text in the middle behind it.

**Difficulties encountered**: The main difficulty was keeping both texts in their place when the window is resizing, since it could not be don't with CSS, it was implemented with JavaScript it works by using the DOM to get the precise location of the image by getting getBoundingClientRect() of it, then changing the coordinates of the other elements relative to the image coordinates using element.style.(position) properties

3. **About**:

The section consists of 4 parts, the stars in the background, the turbulent lines, Osama's image, and the text beside it.

**Difficulties encountered**: The main difficulty was the responsiveness, but it was handled with CSS and since it also had no animations it wasn’t surprising to not encounter many issues with this section.

4**.Work Experience:**

The **Work Experience** section consists of three main parts: the **title**, the **stars and dots vector**, and the **job description**. The standout feature of this section is the **stars and dots vector**, which visually represents the number of years Osama spent in each job. The more dots, the longer the experience.

#### **Animations:**

The animations for this section were designed and implemented by **Youssef Mohsen**. Each job description fades in gradually, with the corresponding vector appearing right after it. The fade-in effect is staggered, creating a smooth flow as the user scrolls through each job.

#### **Difficulties Encountered:**

One of the biggest challenges was ensuring the **responsiveness** of the section, especially the alignment between the text and the vector. Both elements needed to maintain a visually appealing layout across different screen sizes, which required careful tweaking. Additionally, fine-tuning the animations to work seamlessly with the vector without disrupting the overall flow of the section was another challenge successfully resolved.

5.**Courses**:

The section is divided into two main parts: the title and description and the course slider. The title introduces the section with a tagline like "My Courses," while the slider displays Osama’s popular courses from his YouTube channel. The primary focus of this section is the slider, as it showcases the variety of programming tutorials. Each slide includes the course number, title, and a brief description.

Difficulties Encountered:

The key challenge was achieving responsive design between the text and images within the slider. Both needed to scale gracefully across different screen sizes to ensure readability and proper alignment. Additionally, the fading animations required adjustments for smooth transitions without lag or abrupt changes, especially on mobile devices.

6.**Impact on the MENA region:**

This section follows a similar design to the earlier card section but with a key difference: the cards are arranged vertically. The section consists of two parts: the title and a vertical stack of cards that fade in gradually from top to bottom. Each card contains content and imagery that follows the same visual style as the previous card section but with a different animation approach.

Main Features of the Vertical Cards:

The vertical cards appear one by one, gradually fading in from the top to the bottom as the user scrolls or interacts with the page. This animation adds a sense of progression and flow. Each card contains text and images, ensuring consistency with the design language used throughout the project.

Difficulties Encountered:

The challenges for this section were similar to the previous card section, focusing on responsive design across devices. Aligning the cards vertically while maintaining clean, crisp images and ensuring the animations worked smoothly on different screen sizes required careful adjustment. Additionally, the fade-in animation needed to be timed perfectly to create a gradual, seamless effect from top to bottom without disrupting the overall flow of the page.

7.**Channel** **overview**:

This section consists of two parts: the title ("Channel Overview") and the main content, which is a bento grid displaying key statistics about Osama's YouTube channel, Elzero Web School. The grid includes cards showing the total number of views, subscribers, number of videos, and the channel's ranking in the country and education category. The main focus is the bento grid, which visually organizes this important channel data in a clean and engaging way.

Main Features of the Grid:

The grid is designed to highlight important metrics, with each card containing specific data such as the total views, subscribers, and country rank. Below each data point, a growth graph displays the progress over time, giving a clear and visual representation of the channel's evolution.

Difficulties Encountered:

The primary challenges were making the bento grid fully responsive to look great on all devices and ensuring that the layout adapted well across varying screen sizes. Additionally, dynamically pulling in the data and presenting it in an appealing way within the cards required careful styling and alignment to maintain a professional look.

8.**skills**:

What does my part do? : The "Skills" section highlights the key abilities and technical expertise of the individual this portfolio represents. It contains a header with a short description, followed by cards that explain important skills. There’s also a grid with icons representing various programming languages and tools. This section is designed to look great on all devices, especially phones.

What does it used for?: 1) skill card: Each card describes a core competency, like Full-Stack Development, Educational Content, and Community Leadership. 2) Skills Grid: The grid shows icons for technologies such as HTML, CSS, JavaScript, and Python, allowing visitors to quickly understand the individual's technical skills.

The tools I used along building my section: 1) Figma: Used to design the layout and visual style. 2)builder.io: Helped structure the content. 3) ChatGPT: Provided code support and helped troubleshoot issues. 4) YouTube and Internet Resources: Used for tutorials and learning about Angular and responsive design.

What are the challenges that faced me? Along my journey building my section, One of the main challenges was making the grid of icons responsive, especially on mobile screens. Initially, the icons were cluttered when viewed on small screens. The goal was to align them vertically for a cleaner look.

The solution was that? To fix this, I researched CSS grid properties and learned how to adjust the layout using media queries. I changed the grid’s structure to display vertically on smaller screens. I also resized the icons so they fit well on phones without affecting the overall design.

Along the project I used in the HTML/CSS: grid layout for both the cards and the icon grid, which helped keep the section responsive and 2 ) Responsive Design: Media queries made the grid adapt to smaller screens, changing from a multi-column layout to a vertical stack for better viewing on phones.

In conclusion, the skills section presents the individual’s strengths clearly and responsively. Despite challenges with the mobile layout, I successfully adjusted the grid to ensure it looks good and functions well on all devices.

9.**Speaking Engagements & Media Features:**

This section consists of two parts: the title and the main content, which is a set of three cards aligned in the middle of the page. The central card is the active one, slightly larger than the other two, which are dimmed to indicate they are inactive. The design highlights the active card, drawing the user's attention.

Main Features of the Cards:

The active card in the center is visually emphasized by being larger and brighter. When a user click over one of the cards, it becomes bigger and brighter, indicating interactivity. Each card contains content with images, and the goal was to make sure the images are crisp, clear, and well-positioned.

Difficulties Encountered:

The main challenges included making the layout responsive for all devices, ensuring the cards resized and aligned correctly on different screen sizes. Additionally, ensuring the images within the cards remained clear and sharp was crucial. Another challenge was implementing the hover animations smoothly, where the hovered card grows larger and becomes fully bright without disrupting the alignment of the other cards.

10.**Blogs and resources**

**Section Structure**:  
This section is similar to the previous one, consisting of a **title** and a set of **cards**. However, the cards here are vertically aligned, and there are hover effects that make each card enlarge when interacted with. Unlike the earlier sections, the non-active cards are not dimmed—they are simply smaller. **Main Features of the Cards**:  
The cards expand and grow in size when hovered over, similar to previous sections. This interactive design element brings focus to the active card. The vertical alignment of the cards keeps the layout clean, and the consistent animations create a polished, engaging user experience. --- **Development Team Contributions**:

* **Hasan**: Responsible for building the **main HTML structure** of the section, ensuring the cards and content were properly laid out.
* **Youssef**: Focused on implementing the **animations** and **hover effects** that enlarge the cards on hover. He also handled the **responsive design**, ensuring the cards look and function properly across all devices.

**Difficulties Encountered**:  
Youssef faced challenges with the hover effects, particularly ensuring that the enlargement effect was smooth and didn’t interfere with the layout of the other cards. He also encountered difficulties making the responsive design function well on different devices, ensuring that the layout remained clean and intuitive regardless of screen size.

11.**Testimonials & recomendetions:**

This section consists of three parts: the title, the channel logo, and an infinite slider displaying comments from viewers recommending and thanking Osama for his efforts. The slider continuously moves, showcasing positive feedback from the community. The two dark sections at the start and end of the animation give the illusion that the comments are emerging from the background, enhancing the visual experience.

Main Features of the Infinite Slider:

The slider dynamically rotates through a series of comments, offering smooth transitions. The channel logo is displayed above the slider, providing brand recognition. The effect of dark segments on both ends of the slider makes it feel like the comments are flowing from the background, adding depth to the animation.

Difficulties Encountered:

The key challenges included ensuring that the infinite slider and its animations worked responsively across all devices, from desktops to mobile screens. Aligning the entire section, including the title, logo, and slider, centrally on the page was another difficulty. Additionally, the dark parts at the start and end of the animation required fine-tuning to create a seamless transition that enhanced the visual flow.

12.**Contact**:

The section consists of 3 parts, the form, the text beside it and the social media icons.

**Difficulties encountered**: The main difficulty was using the forms control module provided by Angular and implementing the forms valdidators to provide a solid and intuitive user experience. The form also stores the user’s data so it can be used somewhere else. The responsiveness was also an issue since it had an idea of keeping the form always clear and large enough for the user to not encounter confusion.

13. **Call to action & footer**:

Consists of two parts, call to action and footer, the call to action contains three illustrations with links to provide the user with data he needs to be able to contact, learn and get to Osama’s community. The footer consists of the logo, contact input and navigations, the navigations help the user to get anywhere in the page and provides the user with all the necessary data to reach Osama’s social media or website or to reach for help from him easily.

**Difficulties encountered**: Since the routing module provided from Angular only works to navigate user to components in a new tab or url, I used JavaScript method to make the user smoothly navigate to the other sections withing the same page without redirecting him in another tab and it was achived by making a function scrollToSection(section: string) that accepts one parameter and it’s the sections id that the user wants to reach then selecting the section using document.getElementById(section) then using the method element.scrollIntoView(), to navigate the user to section’s top view.