

Continents Explorer

Group 18 – Section 3 & 4

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1 - The Goal of Project

The purpose of this project is to create a traveller's help site that provides advice for those who want to travel after the pandemic but do not know where to go.

For those travellers who already have a general idea of where they want to go but are undecided, there is a rotating map of the seven continents on the homepage and a world map below to help educate the traveller on information like continental scenery, customs, etc. with travelling suggestions; for those who are undecided, there is a questionnaire on the navigation bar that would effectively help them decide on where to travel depending on the answers they give.

2 – Type of Contents

2.1 – Static Pages

- Animate Page
- Home Page
- Questionnaire Page
- Brief Pages for seven continents
- Detailed Pages for seven continents
- Reference Page

2.2 – Dynamic Pages

- Login Page

Depend on users who already logged in, a different username will be shown on the navigation bar for each page.

2.3 – Template & Master Pages

In the project, two master pages were used: for each continent, a brief description template and a detailed introduction template were used.

Besides the master pages, the navigation bar from all pages was also inherited from the Home page.

3 – Design

For this project, two designs from external sources were used or borrowed: the navigation bar (Bootstrap, Navbar) and the Carousel slides (Bootstrap, Carousel), and the population table's sorting function (W3Schools, How To Sort a Table).

With the two elements used from Bootstrap and W3Schools, we modified them by combining the website colour and other information.

3.1 – Constraints

There are three main forms on the website:

1. Login Form – this form is used to create a session and log in to an account. We use PHP to verify whether the username and password exist in the database.
2. Sign Form – this form is used to create an account. If the username is already existing, it will jump to a page to remind the user of an error and return to the sign interface three seconds later. The form will also confirm the password; if two passwords are different, the web will alert an error message.
3. Questionnaire Form – this form contains only multiple-choice questions and set a constraint where all fields have to be filled (required).
4. Comment Area – this area is used to let travellers leave comments and suggestions for a specific continent. The maximum is limited to 250 characters.

4 – Responsive Design

In this project, a responsive design for all pages was used to fit three different device sizes.

Web Pages on different browsers have some small differences: we chose the Chrome browser with Chromium engine as the developing/standard browser; it was found the login page on Firefox browser with Gecko engine seems different from the standard browser, where the signup button was pushed down instead of lining on the same row, and the feature block on seven continents' brief page seems to be narrowed a bit; on the IE browser with Trident engine, the animate page at the beginning has a different location, and the feature blocks were also narrowed; Lastly, the web page on Safari with Webkit engine can show all pages and function normally.

5 – Accessibility

This project does not have optional assistive options for people with disabilities. Most browsers and mobile or tablet devices now have assistive features for people with disabilities; therefore, the overlapping assistive features should not be set on the website.

6 – Use of API(s)

API was not used for this project.

7 – Hosting Environment

The project was hosted on a personal network-attached server (NAS), which is powered by the “Web Station” plugin from Synology Inc. and provides support for PHP 7.4 and Apache HTTP Server 2.4.

For the database server, it was hosted on the same NAS as the web page above, which is powered by the “Docker” plugin from Docker Inc. and provides support for MySQL 8.0.4.

The hosting service was chosen for it is free, can provide sufficient performance and highly flexible scalability and have rapid and easy maintenance feature

Reference

Bootstrap. Carousel. <https://getbootstrap.com/docs/4.0/components/carousel/>.

Bootstrap. Navbar. <https://getbootstrap.com/docs/4.0/components/navbar/>.

W3Schools. How To Sort a Table.

https://www.w3schools.com/howto/howto_js_sort_table.asp.