Team 15 English paper

Introduction

The project embarked upon the task of tailoring services for foreign visitors by providing customized insights through the analysis of monthly Korea travel data for the year 2023. This analysis aimed to leverage the statistics provided by the Korean Tourism Organization, not just by offering basic monthly statistics but by extracting key elements to generate comprehensive quarterly and monthly aggregated reports and decision making. The initiative strived to provide meaningful insights for decision-makers in tourism, policymaking, and research, catering to the diverse needs of stakeholders.

Segregation of Duties

The team project has followed the segment of software development life cycle(SDLC). Teammates have divided their duties according to each segment. First, the requirement analysis has been done. Then, based on the requirements, logical design has been done and implemented by ER Diagram. Table were made and interconnected. Creating and inserting table & php codes have been done together.

Regular online & offline meetings have been placed according to the schedule. For team communications, notion and github have been used.

Business Requirements & Achievements

Data Customization & Segment

The project successfully utilized the monthly statistical data from the Korean Tourism Organization, focusing on 59 countries over a span of three months from July to September 2023. It meticulously extracted travel data statistics based on various factors like nationality, gender, and age.

Data segmentation involved grouping the country-specific monthly data into a higher-level category (continent) and two primary classifications (gender and age). This segmentation aligned with the business reporting cycle, ensuring relevance and valuable insights for decision-makers.

Value Addition

The outcome of this project significantly contributed to offering a comprehensive analysis of foreign visitors to South Korea. It provided substantial value to stakeholders within the tourism industry, policymakers, and researchers. The insights derived from this data could guide targeted marketing strategies, support policy decisions, and serve as a resource for academic studies in the tourism domain. Additionally, the strength of this project lay in its provision of quarterly aggregated data, distinguishing it from the existing monthly statistical reports and offering a customized approach to tourism data analysis.

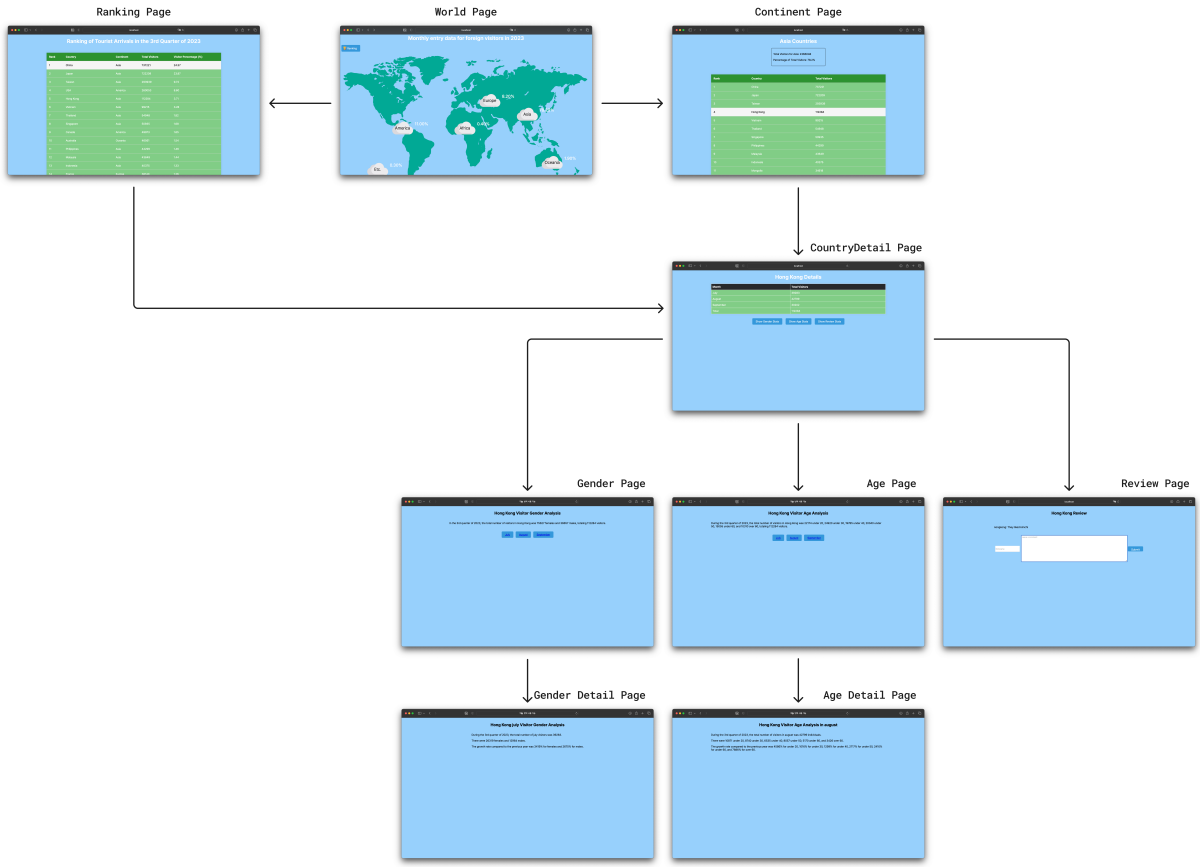
Functional Requirements

The system met various functional requirements including roll-up and drill-down functionalities, ranking/windowing, summation of multiple columns, CRUD operations (Create, Read, Update, Delete), table operations, primary/foreign keys, index creation, and utilizing PHP sessions for page implementation.

Database Requirements

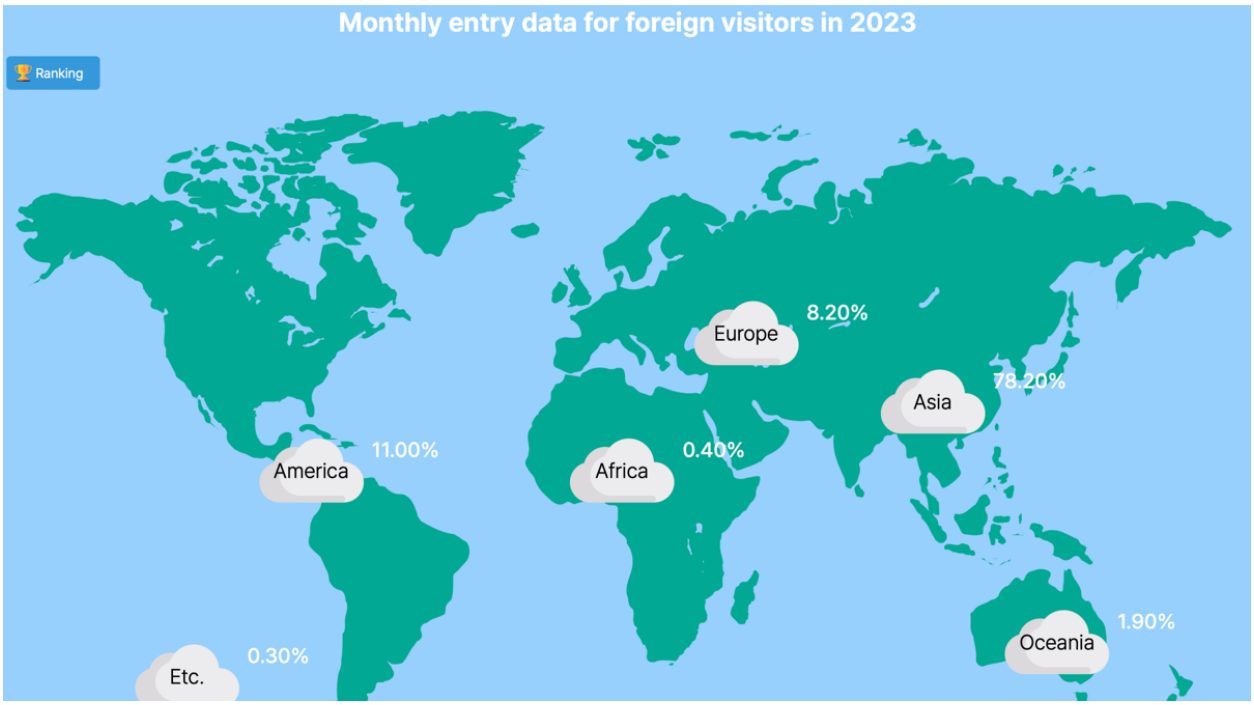
The 'Korea Tourism Tracker' database facilitated easy access and management of country-specific visitation statistics. Statistics were organized by country, grouped under respective continents, offering insights into age, gender, growth rates, and total visitor counts. The database also allowed users to post, edit, and delete reviews tied to specific countries, identified by unique IDs and supporting the use of nicknames.

Web Implementation


Ranking Page
World Page
Continent Page
CountryDetail Page
Gender Page
Age Page
Review Page
Gender Detail Page
Age Detail Page

continentPercentage.php
ranking.php
world.php
continent.php
countryDetail.php
gender.php
age.php
review.php
gender-detail.php
age-detail.php

World page



This is the top-level page and serves as the main interface. It features a world map displaying the percentage of foreign visitor entries during the third quarter of 2023, categorized by continents. Each continent has a button allowing users to navigate to a detailed page specific to that continent. Additionally, there's a button enabling access to a ranking page that showcases 59 countries based on the highest number of foreign visitors in descending order.

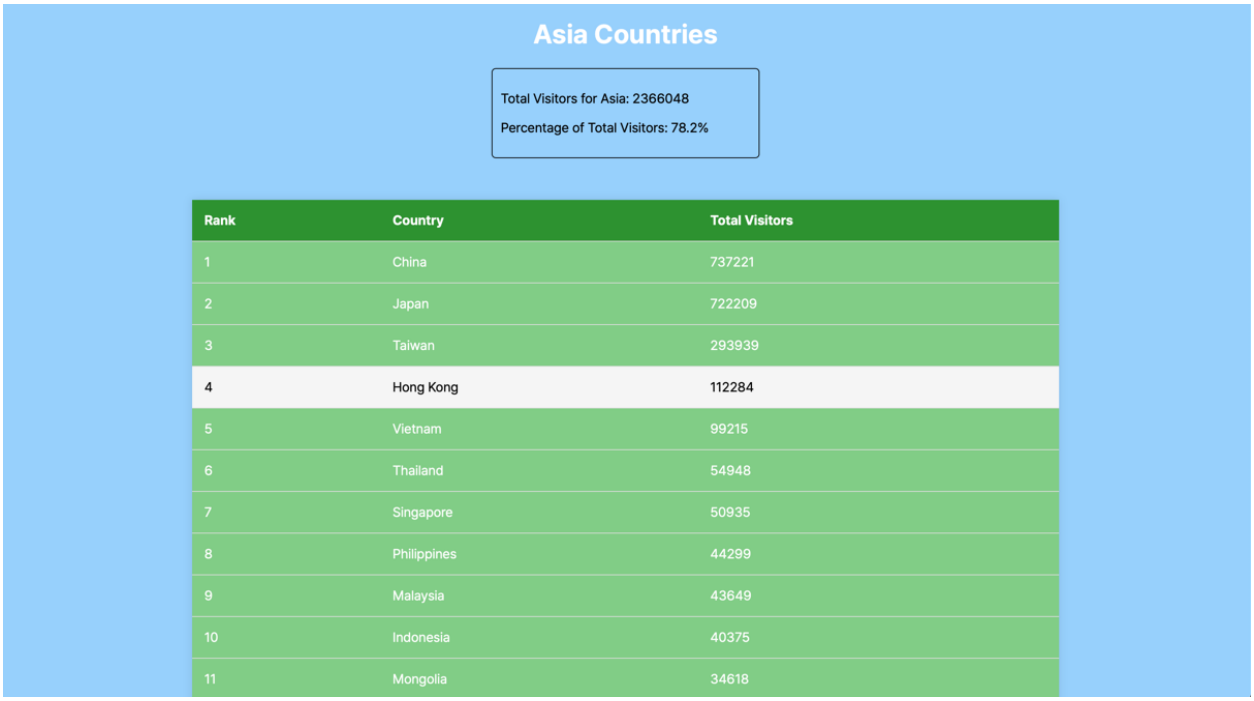
World page

Ranking of Tourist Arrivals in the 3rd Quarter of 2023

Rank	Country	Continent	Total Visitors	Visitor Percentage (%)
1	China	Asia	737221	24.37
2	Japan	Asia	722209	23.87
3	Taiwan	Asia	293939	9.72
4	USA	America	260053	8.60
5	Hong Kong	Asia	112284	3.71
6	Vietnam	Asia	99215	3.28
7	Thailand	Asia	54948	1.82
8	Singapore	Asia	50935	1.68
9	Canada	America	49973	1.65
10	Australia	Oceania	46561	1.54
11	Philippines	Asia	44299	1.46
12	Malaysia	Asia	43649	1.44
13	Indonesia	Asia	40375	1.33
14	France	Europe	38140	1.26

Clicking the "Rankings" button on the World Page leads to a ranking table displaying 59 countries based on the highest number of total visitors. The table includes columns for ranking, country name, continent, total visitors, and the percentage of visitors concerning the overall visitor count among these 59 countries. Clicking on each row within the ranking table directs you to the respective country's page.

Continent page



Asia Countries

Total Visitors for Asia: 2366048

Percentage of Total Visitors: 78.2%

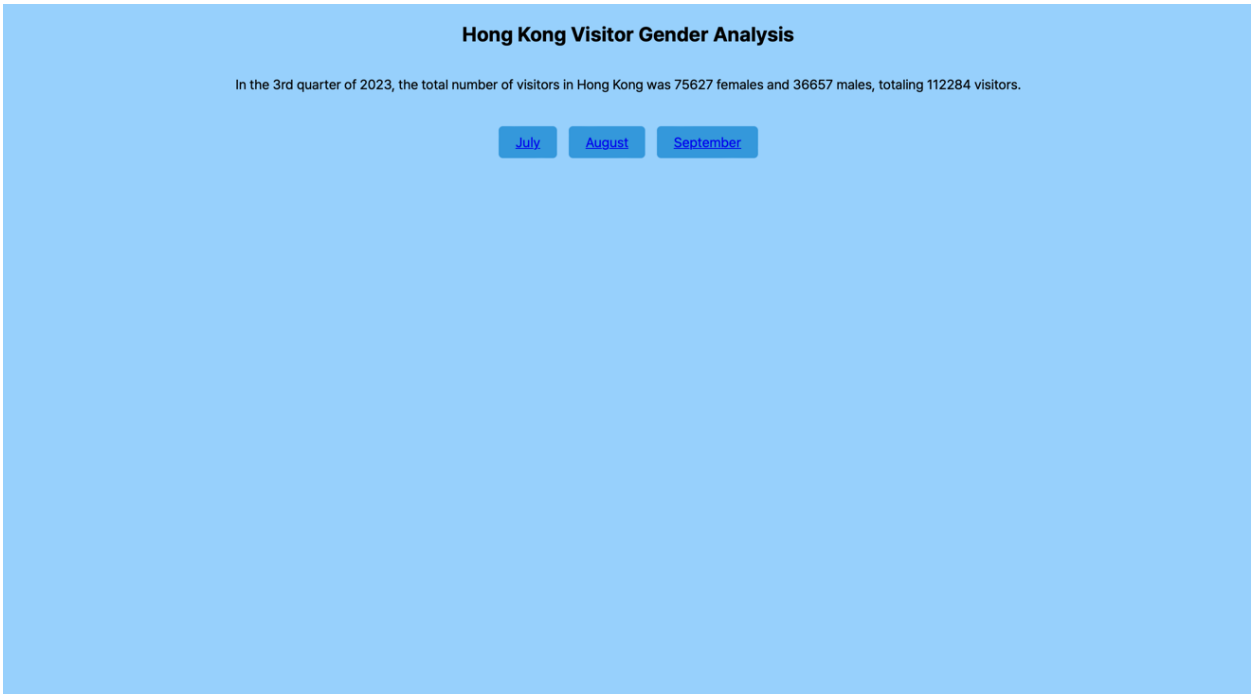
Rank	Country	Total Visitors
1	China	737221
2	Japan	722209
3	Taiwan	293939
4	Hong Kong	112284
5	Vietnam	99215
6	Thailand	54948
7	Singapore	50935
8	Philippines	44299
9	Malaysia	43649
10	Indonesia	40375
11	Mongolia	34618

This page showcases countries belonging to the selected continent from the World Page. It displays the total number of foreign visitors and the respective percentage for that continent. Additionally, it lists countries within that continent based on the highest total number of foreign visitors. Clicking on a country redirects to the Country Page, providing detailed information about that specific country's tourism statistics.

CountryDetail Page

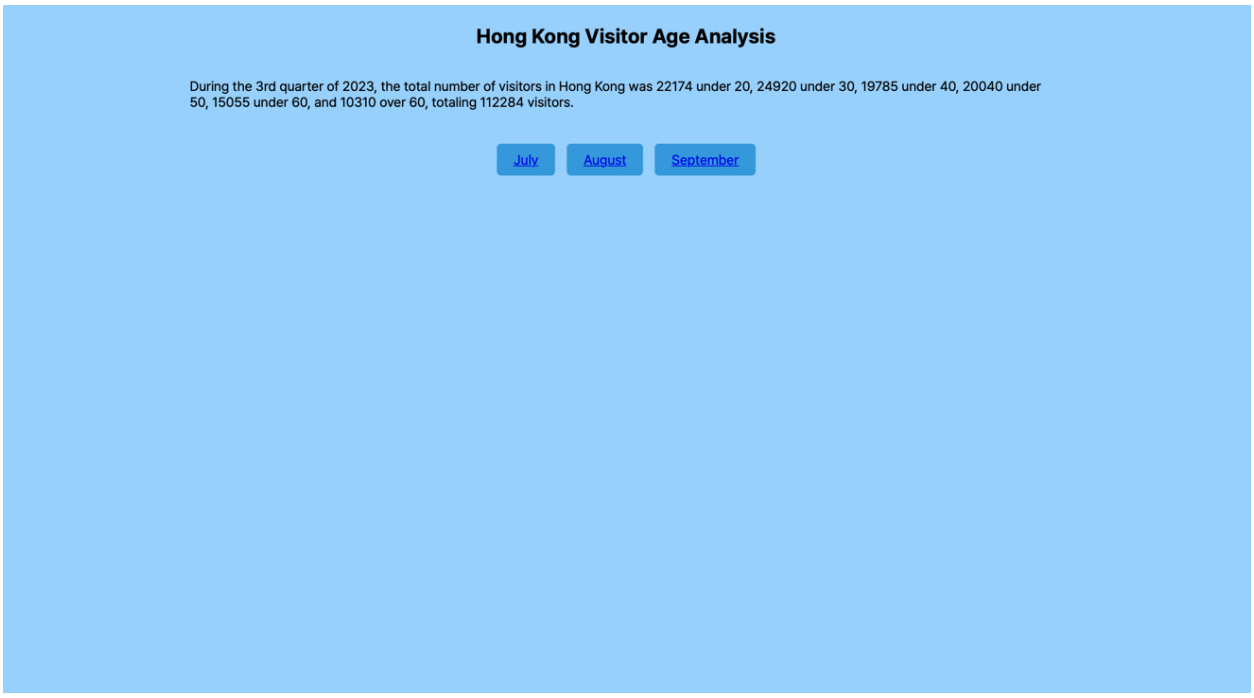
This is the Country Page representing detailed information about the selected country from the Continent Page. It presents the monthly statistics of foreign visitors, showcasing the total number of visitors. Additionally, it offers buttons to navigate to pages that provide gender and age group statistics in detail. Moreover, there's a button to access a review page displaying comments specific to that country.

Gender page



When the "Show Gender Stats" button is clicked on the Country-detail page, a PHP page renders displaying gender statistics for visitors in the third quarter of 2023 for the selected country. It retrieves gender data from the MySQL database, showing the number of female visitors, male visitors, and total visitors.

Age page

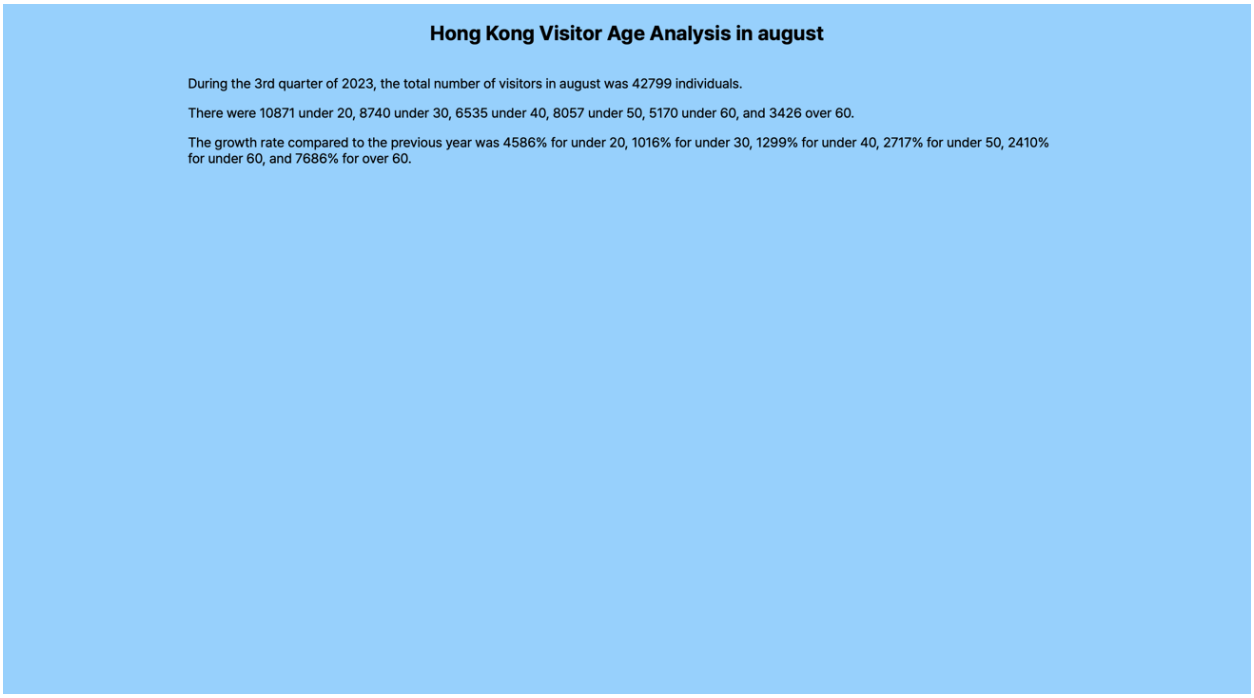


Clicking the "Show Age Stats" button on the Country-detail page renders a PHP page that displays age statistics for visitors in the third quarter of 2023 for the selected country. It extracts age data from the MySQL database, showing visitor counts for under 20s, under 30s, under 40s, under 50s, under 60s, over 60s, and the total number of visitors.

Gender Detail page

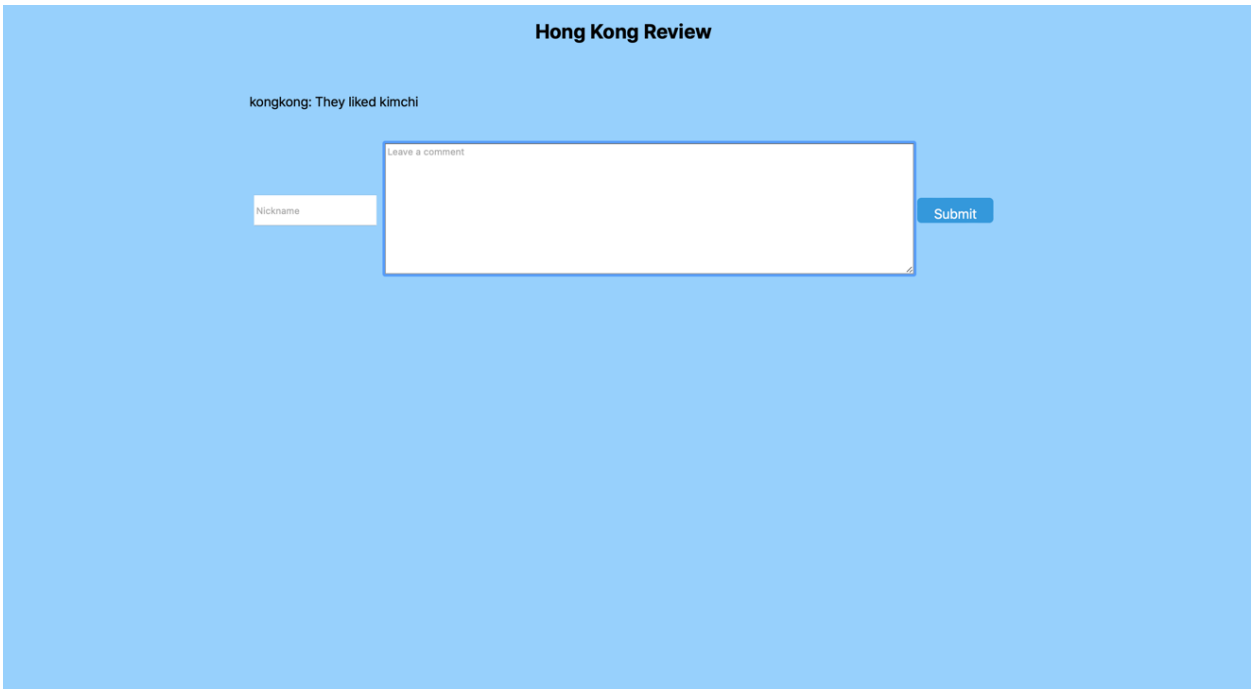
Clicking the buttons for July, August, or September on the Gender page generates a PHP page for the selected country and month, displaying gender statistics and growth rates for visitors in the third quarter of 2023. It fetches gender data and growth rate data from the MySQL database, showing female visitors, male visitors, total visitors for that month, and the growth rate compared to the same month of the previous year for both genders.

Age Detail page



Clicking the buttons for July, August, or September on the Age page generates a PHP page for the selected country and month, displaying age statistics and growth rates for visitors in the third quarter of 2023. It fetches age data and growth rate data from the MySQL database, showing visitor counts for different age groups and the growth rate compared to the same month of the previous year for each age group.

Review page



When the "Show Review Stats" button is clicked on the Country-detail page, a PHP page is rendered allowing users to leave and view tourist reviews for the selected country. Users can input a nickname and review content, which is then inserted into the MySQL review table using transactions.