

SIMATS SCHOOL OF ENGINEERING SAVEETHA INSTITUTE OF MEDICAL AND TECHNICAL SCIENCES CHENNAI-602105



Travel Agency Website

A CAPSTONE PROJECT REPORT

Submitted in the partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING

IN

Computer Science and Engineering

Submitted by S. Sampath Kumar Reddy (192211974)

Under the Supervision of Dr. S K. Saravanan

July 2024

DECLARATION

We, S. Sampath Kumar Reddy, Student of Bachelor of Engineering in CSE, Department of Computer Science and Engineering, Saveetha Institute of Medical and Technical Sciences, Saveetha University, Chennai, hereby declare that the work presented in this Capstone Project Work entitled Travel Agency Website is the outcome of our own bonafide work and is correct to the best of our knowledge and this work has been undertaken taking care of Engineering Ethics.

S. Sampath Kumar Reddy (192211974)

Date:

Place:

CERTIFICATE

This is to certify that the project entitled "Travel Agency Website" submitted by S.Sampath Kumar Reddy has been carried out under my supervision. The project has been submitted as per the requirements in the current semester of B.E. Computer Science Engineering.

Dr. S K. Saravanan

Teacher-in-charge

TABLE OF CONTENTS

S.NO	TOPICS	PAGE NO
1	Abstract	5
2	Introduction	6
3	Project Description	7
4	Problem Description	8
5	Tool Description	9
6	Operations	10
7	Module Description	11
	1.Approach	
	2.Module Description	
	2.1.Booking Management Module	
	2.2.User Management Module	
	2.3. Itinerary Management Module	
	2.4. Customer Support Module	
	2.5. Content Management Module	
	2.6. Data Analytics and Reporting Module	
8	Implementation	14
9	Result	22
10	Future Enhancements	22
11	Conclusion	22
	Screenshots	23
	References	25

1. ABSTRACT

At SAR Travel Agency, we specialize in turning your travel dreams into unforgettable realities. Whether you're yearning for a serene beach getaway, an adventurous mountain trek, or an immersive cultural exploration, our expert team is dedicated to crafting personalized travel experiences that exceed your expectations.

With our extensive network of global partners and in-depth knowledge of the world's most sought-after destinations, we offer tailored itineraries, exceptional customer service, and exclusive deals that ensure every trip is seamless and extraordinary. Let us handle the details so you can focus on making memories.

Start your adventure with SAR Travel Agency today and explore the world with confidence and ease. The website for SAR Travel Agency is crafted to offer a seamless and enjoyable user experience. We prioritize a clean, intuitive interface that makes navigation effortless for visitors. Our design is responsive, ensuring that the website performs beautifully on desktops, tablets, and smartphones. With a focus on visual appeal, the site features high-quality images, interactive maps, and engaging multimedia content to vividly showcase various destinations.

Ongoing maintenance is crucial for website functionality and security. Regular updates for software, plugins, and security patches ensure the site remains up-to-date and secure. Continuous optimization based on user feedback and performance metrics helps to keep the website effective and user-friendly.

2. INTRODUCTION

Welcome to the Travel Agency Project, a comprehensive web-based application developed as part of an internet programming course. This project aims to provide users with a seamless and interactive platform to explore, plan, and book their travel adventures. Utilizing the latest web technologies, this application integrates various functionalities to enhance the user experience, offering everything from destination guides to booking services.

User-Friendly Interface

A primary objective of the Travel Agency Project is to develop an intuitive and visually appealing interface. This interface allows users to easily navigate through different sections of the website, ensuring a smooth and enjoyable browsing experience.

Destination Information

The platform provides detailed information on various travel destinations. Users can access insights on attractions, accommodations, local culture, and travel tips, helping them make informed decisions about their trips.

Booking System

A robust booking system is implemented to enable users to book flights, hotels, and travel packages directly through the website. This system aims to streamline the booking process, making it convenient and efficient for users.

Technologies Used

The project utilizes a range of modern web technologies. For the front-end, HTML5, CSS3, JavaScript are employed. The back-end is powered by PHP, with MYSQLDB as the database. Integration with travel and booking APIs provides real-time data and booking capabilities.

3. PROJECT DESCRIPTION

Objective

The aim of this project is to design and develop a comprehensive travel agency website. The site will provide users with an intuitive interface for browsing, booking, and managing travel-related services such as flights, hotels, car rentals, and travel packages.

Introduction

- Purpose: To create a user-friendly, secure, and scalable travel agency website.
- Target Audience: Travelers seeking to book flights, accommodations, and other travel-related services online.
- Front-end
 - o HTML5, CSS3, JavaScript
- Back-end
 - o Using PHP
 - o Database: MySQL
- API Integration
 - o Flight APIs (e.g., Skyscanner)
 - o Hotel APIs (e.g., Booking.com)

Expected Outcomes

- A fully functional travel agency website with seamless user experience.
- Secure and efficient handling of user data and transactions.
- Code quality, documentation, in web development will also be considered.

4. PROBLEM DESCRIPTION

The travel agency is seeking to enhance its operations through the development of an online

platform that will facilitate booking flights, hotels, and vacation packages. The primary

objectives include creating a seamless user registration and authentication system, complete

with secure login, password recovery, and social media login options. Users will be able to

search for travel services based on criteria such as destination, dates, and price range, view

detailed search results, and make reservations. The platform will also integrate a secure

payment gateway to handle online transactions.

Additionally, users will have access to a personalized dashboard where they can manage

bookings, update personal information, and review their booking history. For administrators,

the platform will feature a robust admin panel to manage user accounts, oversee bookings,

and update content related to flights, hotels, and packages. Key non-functional requirements

include ensuring high performance and scalability to handle peak traffic, a user-friendly and

responsive design, and strict adherence to security standards and data protection regulations.

Regular security audits, data encryption, and compliance with GDPR will be essential to

safeguarding user information and ensuring the platform's reliability and trustworthiness.

Technology Stack

Front end: HTML, CSS, JavaScript.

Back end: PHP

Database: MySQL

8

5. TOOL DESCRIPTION

Hardware and Software Tools

To develop and deploy the recipe management web application, the following hardware and software tools were utilized:

Hardware Specifications

• Laptop Model: LENOVO

• Graphics Card: NVIDIA GeForce RTX 3060, 4GB

Storage: 526GBRAM: 16GB

• **Processor**: intel core i5

The Lenovo , part of the Lenovo IdeaPad series, is equipped with a range of processors from Intel Celeron to Intel Core i5. This variety allows users to select a model that meets their performance needs, whether for basic tasks or more demanding applications. Memory configurations for the 81H7 typically include 4GB to 8GB of DDR4 RAM. Storage options are versatile, ranging from 500GB or 1TB HDDs to faster 128GB or 256GB SSDs, catering to both capacity and speed preferences.

Software Tools

- Visual Studio Code: An integrated development environment (IDE) used for writing and debugging code. Its extensions and integrated terminal enhanced the coding experience.
- XAMPP: A free and open-source cross-platform web server solution stack package developed by Apache Friends. It provided the necessary Apache, MySQL, PHP, and Perl support for local development and testing.
- **phpMyAdmin**: A free software tool written in PHP, intended to handle the administration of MySQL over the web. phpMyAdmin was used for database management, allowing for easy handling of the MySQL database used in the application.
- **GitHub**: Used for version control and collaborative development. The repository hosted the project's source code, enabling team collaboration and version tracking.
- Google Chrome: The primary web browser used for testing and debugging the web application. Developer tools in Chrome facilitated real-time inspection and modification of the front-end code.

6. OPERATIONS

a. Booking System

- Search and Filter: Allow users to search for flights, hotels, or vacation packages based on criteria like date, location, price range, etc.
- Reservation Management: Handle booking reservations, cancellations, and modifications.
- Payment Integration: Implement secure payment gateways for transactions.

b. User Management

- Account Creation: Users can create and manage their accounts.
- **Profile Management:** Allow users to update personal details, preferences, and travel history.
- Authentication and Authorization: Implement secure login/logout mechanisms, role-based access controls.

c. Itinerary Management

- **Trip Planning:** Allow users to create and manage travel itineraries, including flights, accommodations, and activities.
- Notifications: Send reminders or alerts for upcoming trips, changes, or promotions.

d. Customer Support

- **Helpdesk Integration:** Provide a support ticketing system or live chat for customer inquiries and issues.
- FAQ and Knowledge Base: Include resources to help users with common questions and problems.

e. Travel Data and Analytics

- **Reporting Tools:** Generate reports on bookings, revenue, customer preferences, etc.
- Data Analytics: Analyze trends to make data-driven decisions and improve services.

7. MODULE DESCRIPTION

Approach

Development Approach:

• Agile Methodology: Describe if you're using Agile for iterative development and

continuous feedback.

Technology Stack: List technologies used (e.g., React for front-end, Node.js for

back-end, MySQL for database).

System Architecture:

Client-Server Model: Explain how the client interacts with the server and how the

server processes requests.

Micro services Architecture: If applicable, detail how different functionalities are

separated into micro services for better scalability and maintainability.

MODULE DESCRIPTION

1. Booking Management Module

Description: Handles all aspects of flight, hotel, and package bookings.

Functionalities:

Search and Filter: Allow users to search for flights, hotels, or vacation packages

based on various criteria (destination, dates, etc.).

• Booking Process: Facilitate the reservation process, including selecting options,

confirming details, and processing payments.

• Cancellation and Modification: Provide functionalities for users to cancel or modify

their bookings.

Booking Confirmation: Send email or SMS confirmations with booking details.

2. User Management Module

Description: Manages user accounts and profiles.

11

Functionalities:

• Account Creation and Login: Enable users to create accounts, log in, and recover

passwords.

• Profile Management: Allow users to update personal information, preferences, and

view booking history.

• Role Management: Implement role-based access control for different types of users

(admin, customer).

3. Itinerary Management Module

Description: Helps users plan and manage their travel itineraries.

Functionalities:

• Itinerary Creation: Users can create custom itineraries, including flights, hotels, and

activities.

Itinerary Viewing: Provide a detailed view of planned trips with all bookings and

activities listed.

Notifications and Alerts: Send notifications about upcoming trips, changes, or

important reminders.

4. Customer Support Module

Description: Provides assistance and support to users.

Functionalities:

Helpdesk System: Implement a ticketing system for users to report issues or request

support.

• Live Chat: Integrate a live chat feature for real-time assistance.

• FAQ and Knowledge Base: Offer a searchable database of common questions and

answers.

5. Content Management Module

Description: Manages travel-related content on the platform.

12

Functionalities:

- **Dynamic Content Updates:** Allow administrators to update content such as destination guides, travel tips, and promotional offers.
- **Media Management:** Handle the upload and display of images, videos, and other media.

6. Data Analytics and Reporting Module

Description: Provides insights into booking trends, customer behavior, and financial performance.

Functionalities:

- Report Generation: Create reports on bookings, revenue, user activity, etc.
- **Dashboard:** Provide a visual dashboard with key metrics and analytics.
- Data Export: Allow data export in various formats.

Functionalities Summary

For each module, summarize the key functionalities:

- a) Booking Management: Search, book, cancel, and modify reservations.
- b) User Management: Account creation, login, profile management.
- c) Itinerary Management: Create, view, and manage travel itineraries.
- d) Customer Support: Ticketing system, live chat, FAQ.
- e) Content Management: Update and manage travel content and media.
- f) Data Analytics: Generate reports and visualize data.
- g) Marketing and Promotions: Manage campaigns and apply discounts.
- h) Localization: Support multiple languages and currencies.

8. IMPLEMENTATION / CODING

Front End

LOGIN.PHP

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Login</title>
body {
      background-image:
url('https://png.pngtree.com/thumb_back/fh260/back_our/20190617/ourmid/pngtree-travel-agency-
painted-travel-background-image 130149.jpg');
      background-size: cover;
      background-position: center;
      font-family: Arial, sans-serif;
      display: flex;
      justify-content: center;
      align-items: center;
      height: 100vh;
</head>
<body>
  <div class="container">
    <h1>TRAVEL AGENCY</h1>
    <h1>Login</h1>
    <form id="loginForm" action="dblogin.php" method="post">
       <div>
         <label for="username">Username</label>
         <input type="text" id="username" name="username" required>
       </div>
       <div>
```

```
<label for="password">Password</label>
         <input type="password" id="password" name="password" required pattern="\d+">
       </div>
       <div>
         <input type="submit" value="Login">
       </div>
       Oon't have an account? <a href="reg.php">Register here</a>
    </form>
  </div>
  <script>
    document.getElementById('loginForm').addEventListener('submit', function(event) {
       var username = document.getElementById('username').value;
       var password = document.getElementById('password').value;
       if (!/^[a-zA-Z0-9_!@#$%^&*()\-+=<>?]+$/.test(username)) {
  alert('Username must contain only letters, numbers, and valid special characters.');
  event.preventDefault();
}
       if (!/^d+\$/.test(password)) {
         alert('Password must contain only numbers.');
         event.preventDefault();
       }
    });
  </script>
</body>
</html>
```

DBBBOKING.PHP

```
<?php
$servername = "localhost";
$username = "root";
$password = "";
$dbname = "sampath";
$conn = new mysqli($servername, $username, $password, $dbname);
if ($conn->connect error) {
  die("Connection failed: ". $conn->connect error);
}
session start();
if ($ SERVER["REQUEST METHOD"] == "POST") {
  $full name = filter var($ POST['name'], FILTER SANITIZE STRING);
  $email = filter var($ POST['email'], FILTER SANITIZE EMAIL);
  $phone number = filter var($ POST['phone'], FILTER SANITIZE STRING);
  $tour package = filter var($ POST['package'], FILTER SANITIZE STRING);
  $start date = $ POST['start-date'];
  $number of people = filter var($ POST['number-of-people'],
FILTER SANITIZE NUMBER INT);
  $total price = filter var($ POST['total-price'], FILTER SANITIZE STRING);
  $special requests = filter var($ POST['special-requests'], FILTER SANITIZE STRING);
  booking date = date('Y-m-d');
  $booking time = date('H:i:s');
  if (!filter var($email, FILTER VALIDATE EMAIL)) {
    echo "Error: Invalid email format.";
  } else {
    $stmt = $conn->prepare("INSERT INTO booking (FULL NAME, EMAIL,
PHONE NUMBER, TOUR PACKAGE, START_DATE, NUMBER_OF_PEOPLE,
TOTAL PRICE, SPECIAL REQUESTS, BOOKING DATE, BOOKING TIME) VALUES
(?,?,?,?,?,?,?,?,?)");
    $stmt->bind param(
      'sssssisiss',
```

```
$full_name,
       $email,
       $phone_number,
       $tour_package,
       $start_date,
       $number_of_people,
       $total_price,
       $special_requests,
       $booking_date,
       $booking_time
    );
    if ($stmt->execute()) {
       echo "Booking successfully saved. Redirecting to home page...";
       echo "<script>
            setTimeout(function() {
              window.location.href = 'home.php';
            }, 2000);
          </script>";
    } else {
      echo "Error: " . $stmt->error;
    }
    $stmt->close();
  }
}
$conn->close();
?>
REPORT.PHP
<?php
$servername = "localhost";
$username = "root";
$password = "";
$dbname = "sampath";
```

```
$conn = new mysqli($servername, $username, $password, $dbname);
if ($conn->connect error) {
  die("Connection failed: " . $conn->connect_error);
}
session start();
if ($ SERVER["REQUEST METHOD"] == "POST") {
    $start date = $_POST['start-date'];
  $end date = $ POST['end-date'];
  if (empty($start date) || empty($end date)) {
    die("Please provide both start and end dates.");
  }
  $start date = $conn->real escape string($start date);
  $end date = $conn->real escape string($end date);
    $sql = "SELECT FULL NAME, EMAIL, PHONE NUMBER, TOUR PACKAGE,
START DATE, NUMBER OF PEOPLE, TOTAL PRICE, SPECIAL REQUESTS,
BOOKING DATE, BOOKING TIME
      FROM booking
      WHERE START DATE BETWEEN? AND?";
  $stmt = $conn->prepare($sql);
  $stmt->bind param("ss", $start date, $end date);
  if ($stmt->execute()) {
    $result = $stmt->get result();
    $bookings = $result->fetch all(MYSQLI ASSOC);
    function getUniqueRecords($array) {
      unique = [];
      foreach ($array as $item) {
         key = implode('', sitem);
         if (!isset($unique[$key])) {
           $unique[$key] = $item;
         }
      return array values($unique);
    }
```

```
$unique bookings = getUniqueRecords($bookings);
    $unique count = count($unique bookings);
    $total sql = "SELECT COUNT(DISTINCT FULL NAME) AS total names FROM
booking WHERE START DATE BETWEEN? AND?";
    $total stmt = $conn->prepare($total sql);
    $total stmt->bind param("ss", $start date, $end date);
    $total stmt->execute();
    $total result = $total stmt->get result();
    $total row = $total result->fetch assoc();
    $total names = $total row['total names'];
    $total stmt->close();
  } else {
    die("Error executing query: " . $stmt->error);
  }
  $stmt->close();
  $conn->close();
} else {
  die("Invalid request method.");
}
?>
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Booking Results</title>
  <style>
    body {
       font-family: Arial, sans-serif;
       display: flex;
       flex-direction: column;
       align-items: center;
```

```
justify-content: center;
      height: 100vh;
      background-color: #f0f0f0;
    }
    h1 {
      text-align: center;
    }
    table {
      width: 90%;
      max-width: 1200px;
      border-collapse: collapse;
      margin: 20px auto;
      background: white;
      box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
    }
  </style>
</head>
<body>
  <h1>Booking Results</h1>
  Total number of unique records who booked from <?php echo
htmlspecialchars($start date); ?> to <?php echo htmlspecialchars($end date); ?>: <?php
echo htmlspecialchars($unique count); ?>
  Total number of unique names: <?php echo htmlspecialchars($total names); ?>
  <thead>
      Full Name
        Email
        Phone Number
        Tour Package
        Start Date
        Number of People
        Total Price
```

```
Special Requests
       Booking Date
       Booking Time
     </thead>
   <?php if (!empty($unique bookings)): ?>
       <?php foreach ($unique bookings as $booking): ?>
         >
           <?php echo htmlspecialchars($booking['FULL NAME']); ?>
           <?php echo htmlspecialchars($booking['EMAIL']); ?>
          <?php echo htmlspecialchars($booking['PHONE NUMBER']); ?>
           <?php echo htmlspecialchars($booking['TOUR PACKAGE']); ?>
          <?php echo htmlspecialchars($booking['START DATE']); ?>
          ><?php echo
htmlspecialchars($booking['NUMBER OF PEOPLE']); ?>
           <?php echo htmlspecialchars($booking['TOTAL PRICE']); ?>
           echo
htmlspecialchars($booking['SPECIAL REQUESTS']); ?>
          <?php echo htmlspecialchars($booking['BOOKING DATE']); ?>
          <?php echo htmlspecialchars($booking['BOOKING TIME']); ?>
         <?php endforeach; ?>
     <?php else: ?>
       No bookings found for the selected date range.
       <?php endif; ?>
   <a href="count.php">Back to Check Bookings</a>
</body>
</html>
```

9.RESULT

The travel agency website project is progressing with several key components in place. The registration form is designed to capture user details and integrate them with the database effectively. The contact form, which includes fields for FULLNAME, EMAIL, PHONE NUMBER, and MESSAGE, is being connected through the dbcontact.php script to manage submissions. For the booking system, users can select a tour package and input the number of people, with the total price dynamically calculated on the booking.php page. Additionally, the payment.php page provides various payment options, such as credit card, UPI, and cash. Notably, the booking process starts with providing the start date, and users will enter the end date when checking their bookings.

10.FUTURE ENHANCEMENT

Integrating AI and machine learning into the travel agency platform can greatly enhance user experience by offering personalized travel recommendations and advanced chatbots for real-time support. Developing mobile applications would improve accessibility with features like location-based notifications and offline itinerary access. Enhanced data analytics and predictive tools will aid in accurate trend forecasting and decision-making. Additional advancements could include virtual and augmented reality for immersive destination previews and block chain technology for secure transactions and loyalty programs. Expanding multilingual support and localizing content will cater to a global audience, while sustainability features like eco-friendly options and carbon offsetting will appeal to environmentally-conscious travelers. These innovations will keep the platform competitive and aligned with evolving user needs and technological trends.

11.CONCLUSION

The "Travel Agency" project aims to revolutionize the travel booking experience by providing a comprehensive, user-friendly platform for managing flights, accommodations, and itineraries. With integrated modules for booking management, user profiles, customer support, and data analytics, the system enhances operational efficiency and user satisfaction. By offering personalized experiences, dynamic content, and global accessibility, this platform is poised to set a new standard in the travel industry. Future enhancements could include AI-driven features and mobile applications to further refine and expand its capabilities.

SCREEN SHOTS

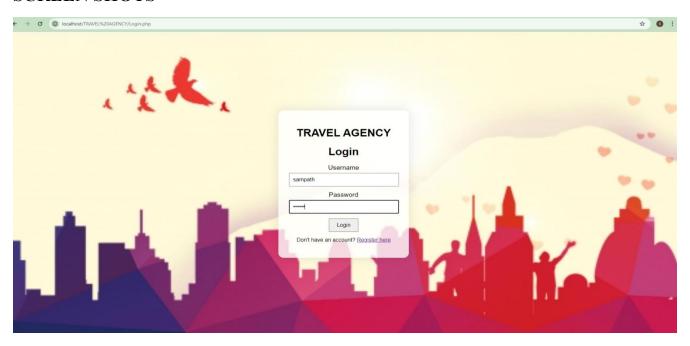


FIG.1:Login page of the website

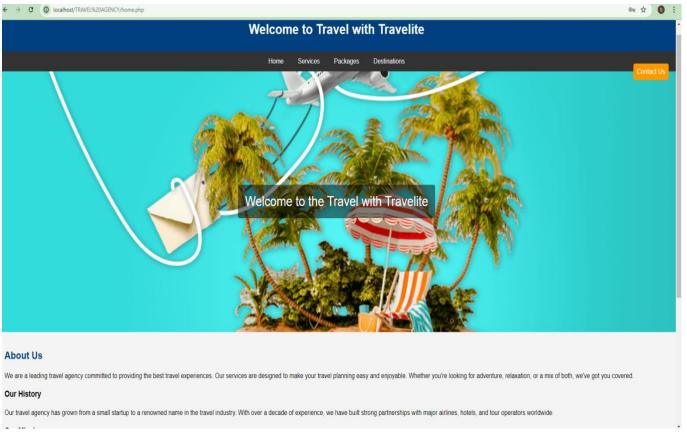


FIG.2: Home page of the website

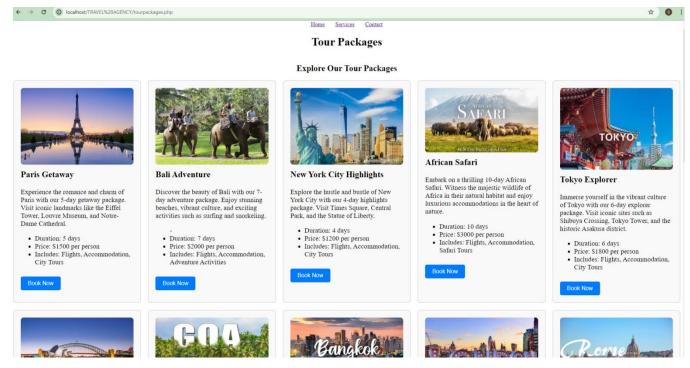


FIG .3: Tour packages of the website

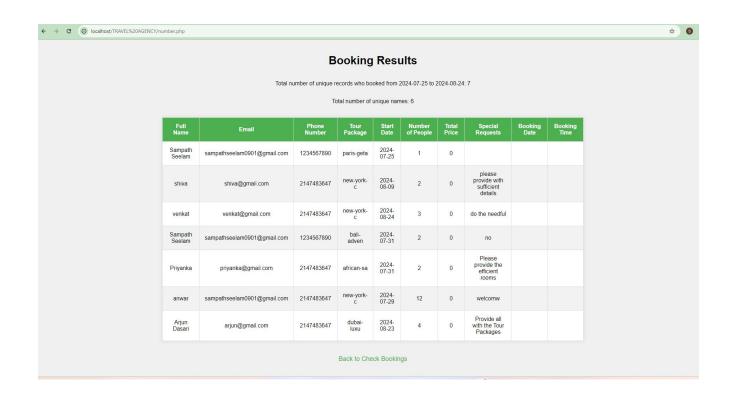


FIG .4: Report for number of members booked from selected dates

REFERENCES

- **1.** Lee, Jenny Ji-Yeon, et al. "Developing, operating, and maintaining a travel agency website: Attending to e-consumers and Internet marketing issues." *Journal of Travel & Tourism Marketing* 17.2-3 (2005): 205-223.
- **2.** Huang, Han-Chen. "Research on key factors of travel agency website service quality." *World Journal of Advanced Research and Reviews* 23.2 (2024): 001-010.
- **3.** Park, Young A., Ulrike Gretzel, and Ercan Sirakaya-Turk. "Measuring web site quality for online travel agencies." *Journal of Travel & Tourism Marketing* 23.1 (2007): 15-30.
- **4.** Law, Rob, Basak Denizci Guillet, and Rosanna Leung. "An analysis of the lowest fares and shortest durations for air-tickets on travel agency websites." *Journal of Travel & Tourism Marketing* 27.6 (2010): 635-644.
- **5.** Şengel, Ümit, et al. "The effects of corporate websites usability of travel agencies on their technological capabilities." *Journal of Quality Assurance in Hospitality & Tourism* 23.6 (2022): 1575-1595.
- **6.** Hagag, Wegdan, Lillian Clark, and Colin Wheeler. "A framework for understanding the website preferences of Egyptian online travel consumers." *International Journal of Culture, Tourism and Hospitality Research* 9.1 (2015): 68-82.