



PROJECT REPORT

ON

NATOURS

SUBMITTED TO:

DEPARTMENT OF COMPUTER SCIENCE

UNDER THE SUPERVISION OF

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DECLARATION

I hereby declare that the project entitled “**NATOURS**” has been submitted for the Bachelor of Computer Science Engineering at Chitkara University, Punjab is a bona fide piece of project work carried out by me under the supervision of Dr. Rupali Gill.

Signature(s):

ACKNOWLEDGMENT

In the present world of competition there is a race of existence in which the hardworking needs to come forward and succeed. Project is like a bridge between theoretical and practical work. With this willing we joined the project. Before we get into the thick of things, we would like to thank a few people who have supported and helped us throughout the journey of making this project.

We would like to thank our Dean Dr. Pradeepta Sarangi for giving us an opportunity to make this project.

We would like to express my sincere gratitude to Dr. Rupali Gill (LOP in-charge) for providing her valuable guidance and support.

Also, we would like to thank all our teachers who have taught us and helped us reach where we are right now.

Last but not the least we would like to thank our parents for their continuous support, love and encouragement.

INTRODUCTION

In earlier times, people went to tour agencies to book tours for which they had to wait. People were not sure about how the tour is because they don't know what experience will be gained from the tour. People got so confused which tour to book since they don't know the experience or what the tour offers in adventure.

People want to know more about the experience from someone who has been to that tour. They wish to plan to book for themselves. This is where the project "**NATOURS**" comes for rescue.

Natours allows people to book tours of their choice through a web application. In this project, registered users can view a variety of tours across the globe and book them instantly using Stripe (instant pay). It allows administrators to track who booked tours and paid for them, and users to see which tours they booked using their booking menu.

Other users were able to book tours based on the valuable reviews provided by those who had visited the tour which helped in memory making.

LITERATURE REVIEW

Travel is the movement of people between distant geographical locations. Reasons for traveling include holidays, rejuvenation, tourism or vacationing, etc. Motives for travel include relaxation, pleasure, discovery, exploration, adventure, avoiding stress, etc.

Travel may be local, regional, national (domestic) or international. In some countries, non-local internal travel may require an internal passport, while international travel typically requires a passport and visa. Tours are a common type of travel.

The economic foundations of tourism are essentially the cultural assets, the cultural property and the nature of the travel location. Tourism typically requires the tourist to feel engaged in a genuine experience of the location they are visiting.

The tourism industry, as part of the service sector, has become an important source of income for many regions and even for entire countries.

WORK DONE

❖ Description:

Anyone can register and book tours. Only registered users can book tours and make the payment.

There are three roles available:

1. *Visitor* - can only view the tours.
2. *User* - can view and book the tour.
3. *Admin* - has some extra privileges including that of user and visitor. Admin can create new tours, update tour information and update/remove tours.

❖ Operating Environment:

This project works on the following:

- Operating System – Windows 7, 8, 10, 11, macOS.
- Text-Editor – VS Code.
- Technologies used – CRUD operations, NodeJS, Express, MongoDB, PUG Template, CSS, JavaScript and Stripe for payments.
- Browsers – Chrome, Firefox, etc.

❖ Database Details:

➤ **Booking Table:**

This table contains id (ObjectId), createdAt (Date), paid (Boolean), tour (ObjectId), user (ObjectId) and price (Number).

The system shows admin which tours users have booked.

➤ **Review Table:**

This table contains id (ObjectId), review (String), rating (Number), createdAt (Date), tour (ObjectId) and user (ObjectId).

This shows reviews of the tours from the users who had been to that tour.

➤ **User Table:**

This table contains id (ObjectId), name (String), email (String), photo (String), role (String), password (String), passwordConfirm (String), passwordChangedAt (Date), passwordResetToken (String), passwordResetExpires (Date) and active (Boolean).

This table has all the user details that the user has entered while registering. Admin can see users who have registered to the web application. The default role while registering is “user”. There are four roles of users:

- User – can be as many
- Guide – only made by the admin
- Lead-Guide – only made by the admin
- Admin – can be only one

➤ ***Tour Table:***

This table contains id (ObjectId), name (String), slug (String), duration (Number), maxGroupSize (Number), difficulty (String), ratingsAverage (Number), ratingsQuantity (Number), price (Number), priceDiscount (Number), summary (String), description (String), imageCover (String), images (String), createdAt (Date), startDates (Date), secretTour (Boolean), startLocation {(String), coordinates (Number), address (String), description (String)}, locations {(String), coordinates (Number), address (String), description (String), day (Number)} and guides (ObjectId).

There are three difficulties of the tour:

- Easy
- Medium
- Difficult

This table shows all the details of tours required and important for the users to know.

❖ Web Pages Details:

| | |
|--------------------|----|
| ➤ Home Page | 12 |
| ➤ Login Page | 15 |
| ➤ Sign up Page | 19 |
| ➤ Tour Page | 22 |
| ➤ Payment Page | 26 |
| ➤ Settings Page | 28 |
| ➤ My Bookings Page | 30 |
| ➤ Admin view | 31 |

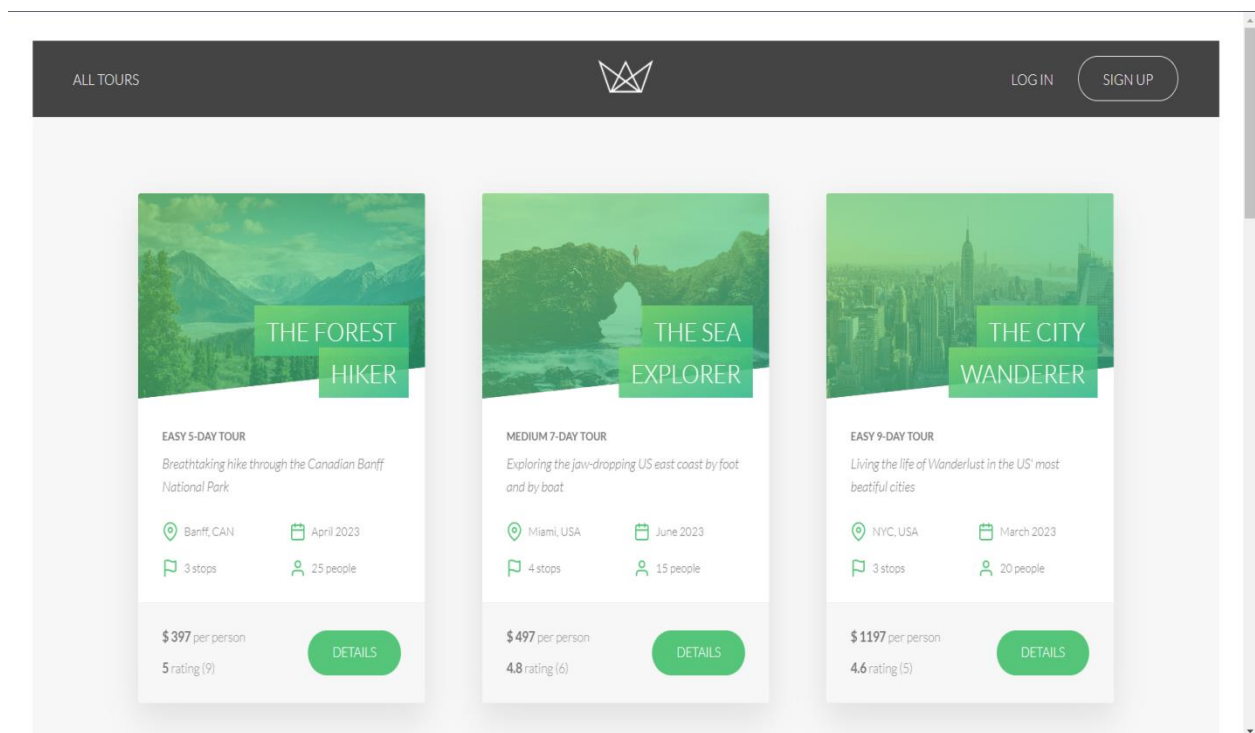
NATOURS APPLICATION

Anyone can view Natours website and scroll through tours, but only registered users can login and book tours. If a visitor wants to become a user he/she has to first register themselves in order to avail the benefits of a user. Visitors can register by navigating to the sign-up page and then fill in the required details. Only the admin can change the role of the user to guide or lead-guide. If a person registers by default he/she will be the user only.

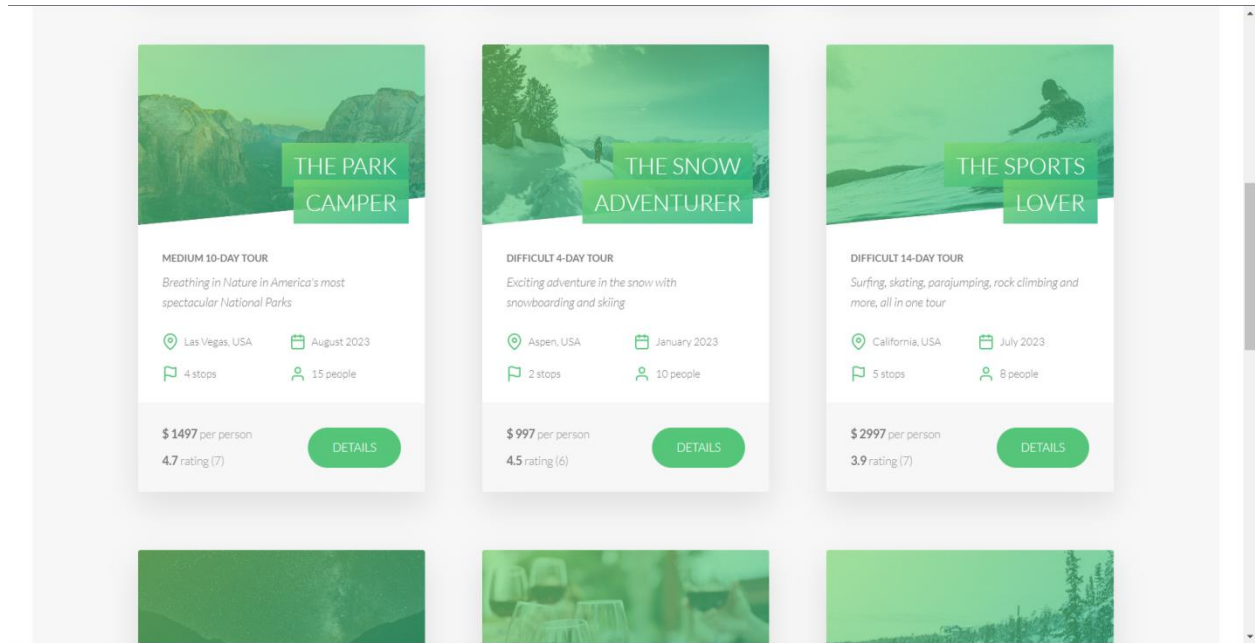
USER VIEW

HOME PAGE:

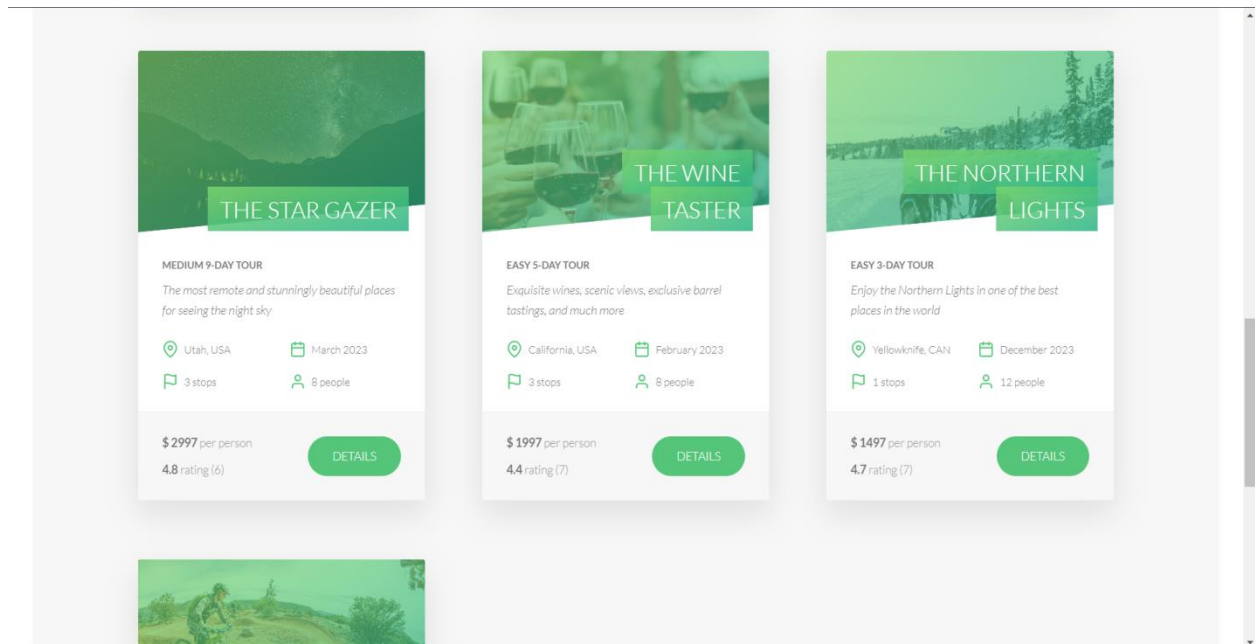
Home page is the first page that is visible once we open the web application. It shows all the tours that are available on our website (Snapshot 1).



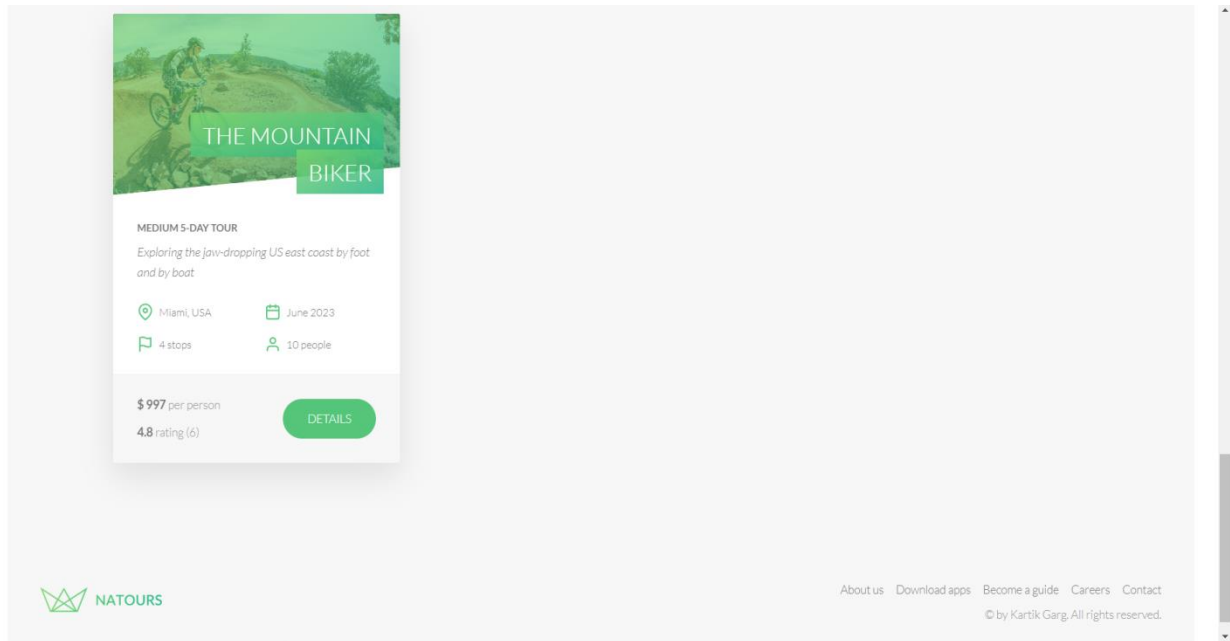
Snapshot 1



Snapshot 2



Snapshot 3

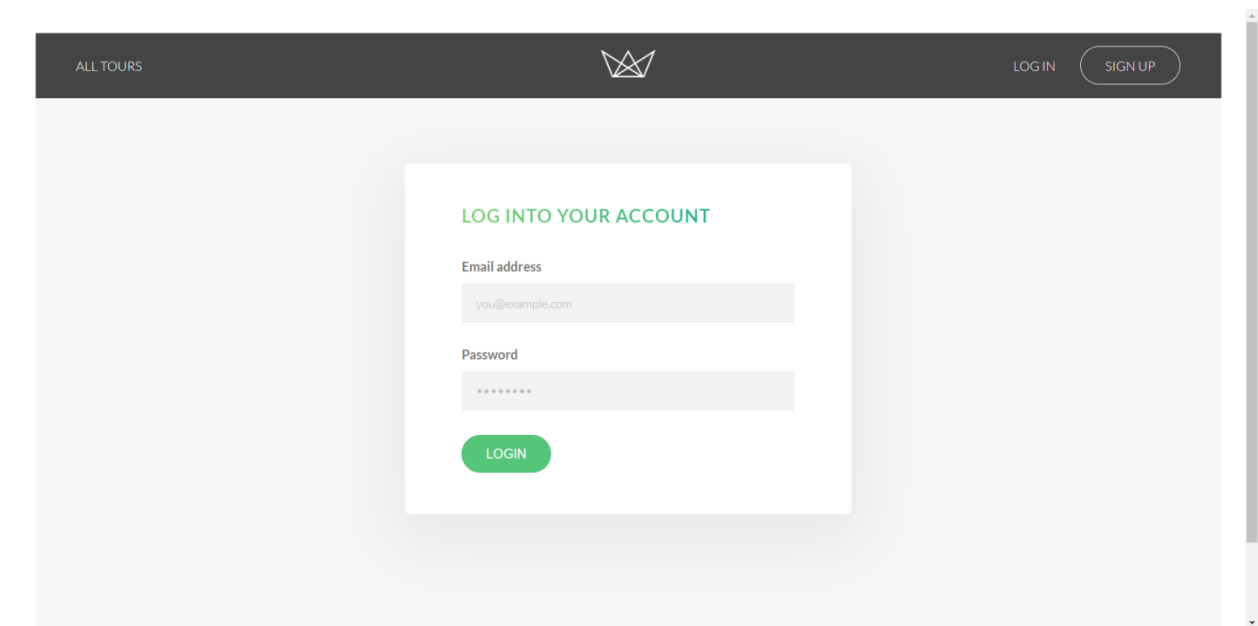


Snapshot 4

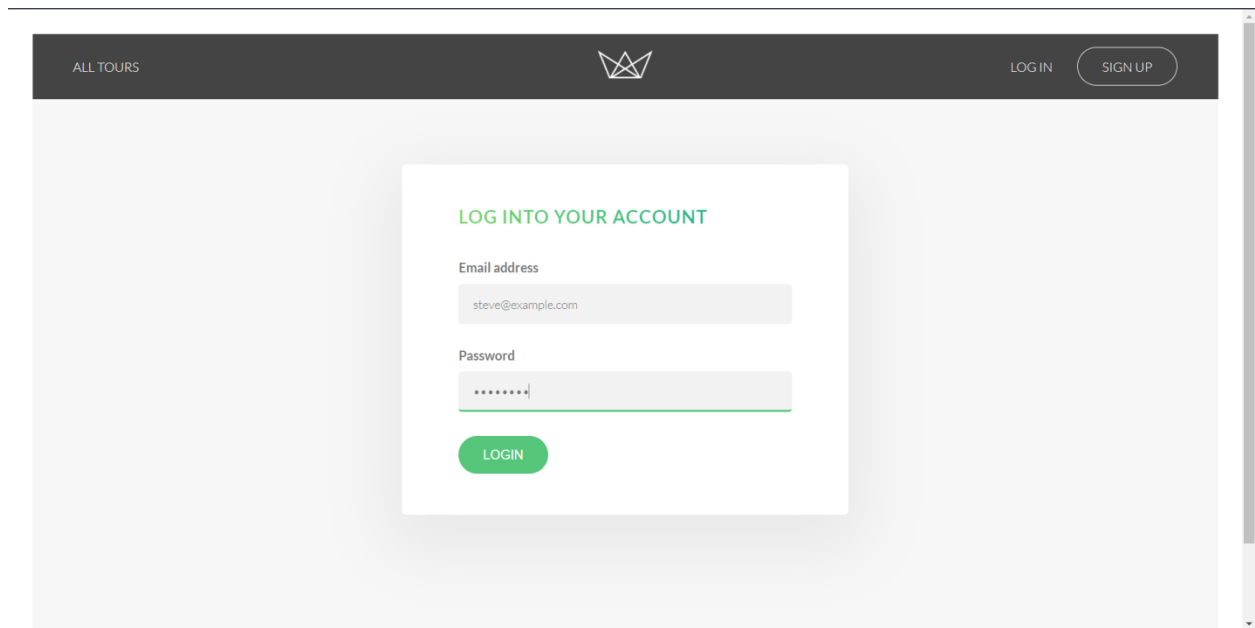
Visitors can scroll through all the tours and reach the end of the page (Snapshot 4).

LOGIN PAGE:

On the right side of the navigation bar there are two buttons, one for “LOGIN” and the other for “SIGN UP”. In order to book a tour if the user already has an account, they can simply login to the web application. The user has to enter a registered email address and password.

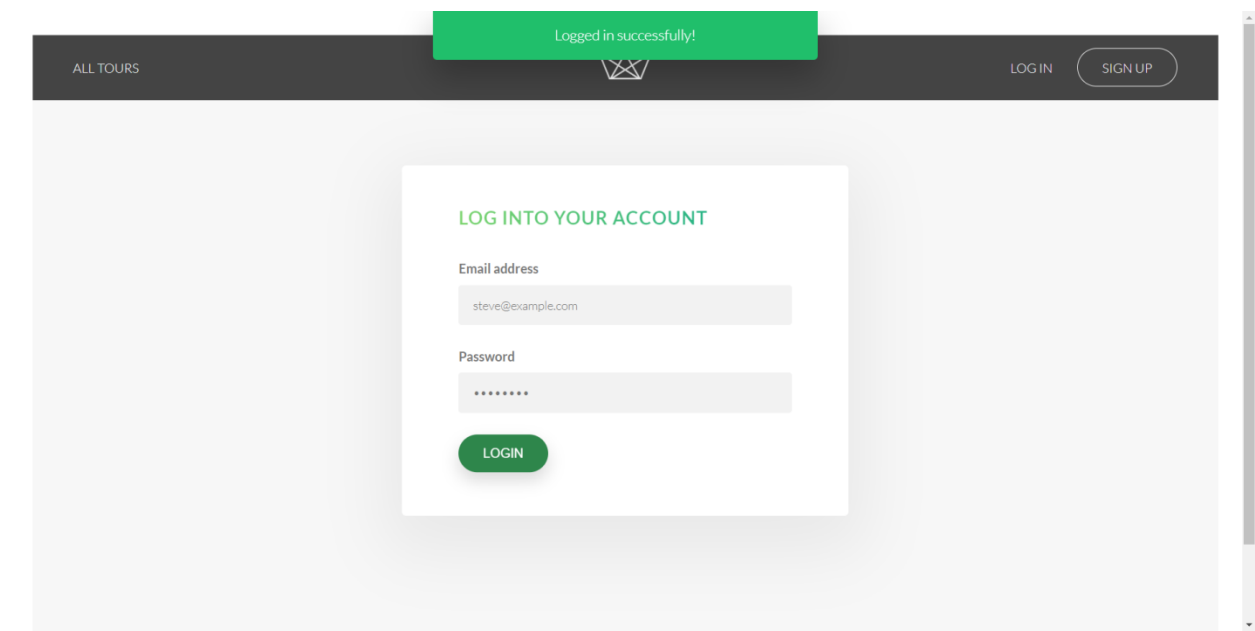


Snapshot 5



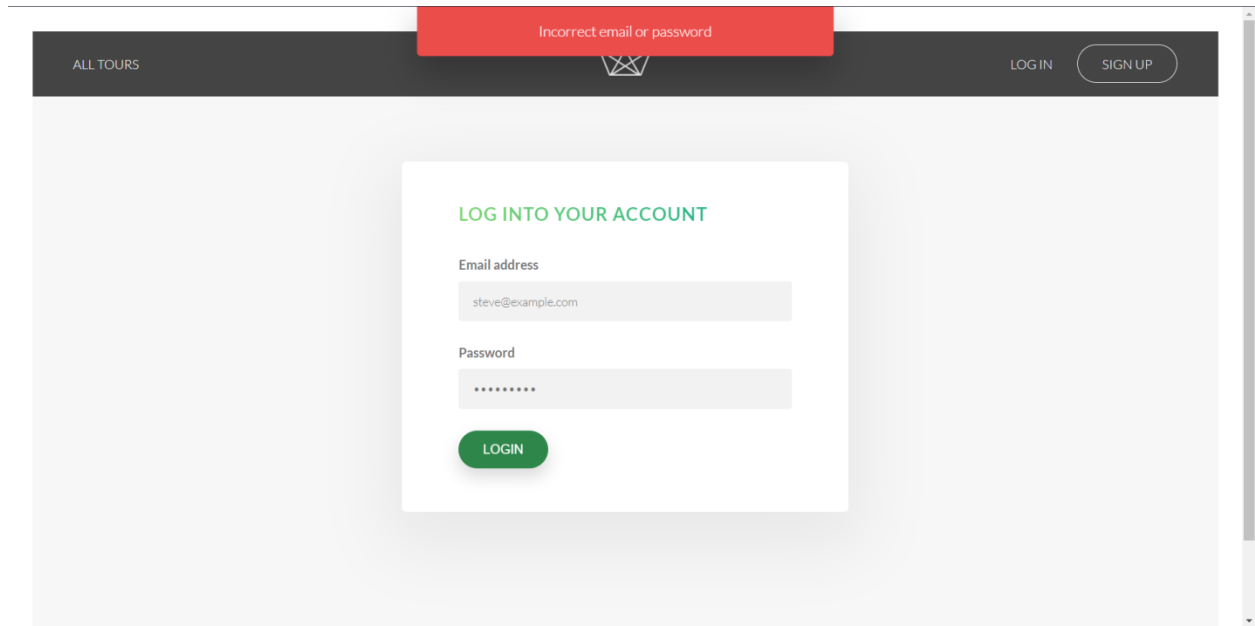
Snapshot 6

If the user enters correct credentials they will get an alert “Logged in successfully!”(Snapshot 7)



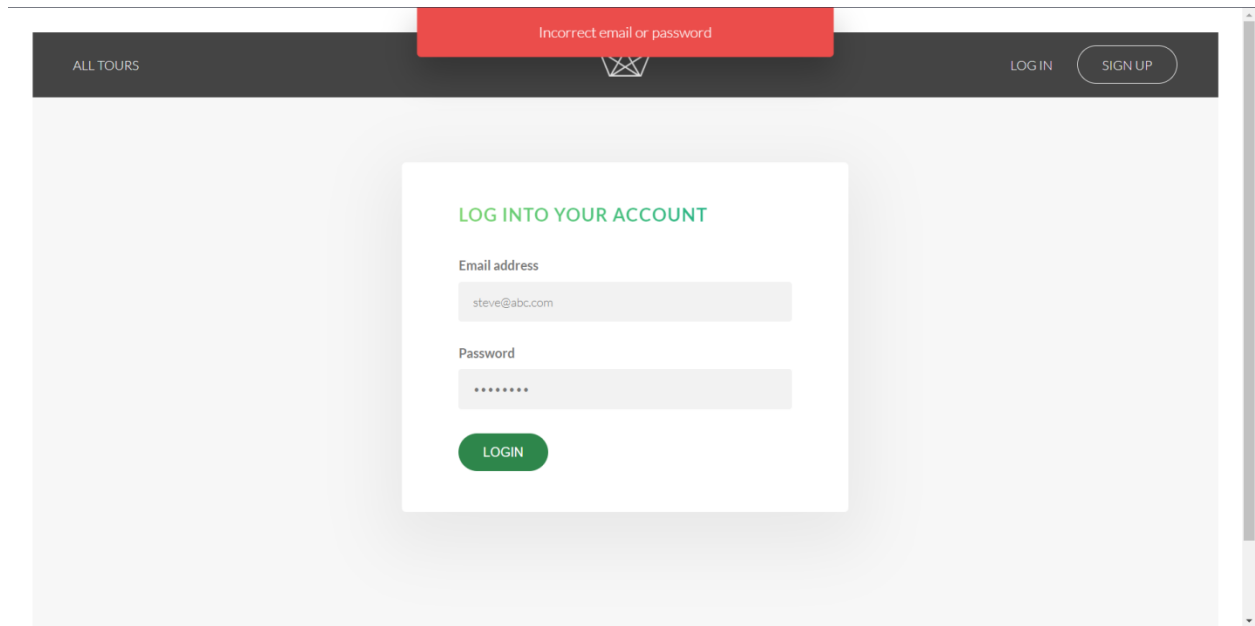
Snapshot 7

If the user enters incorrect credentials they will get an alert “Incorrect email or password”.



Snapshot 8

In Snapshot 8, the user email address is incorrect but the alert shows for both email and password which tells a user will not be able to figure out which credential is incorrect if they try to log in to another user's account.

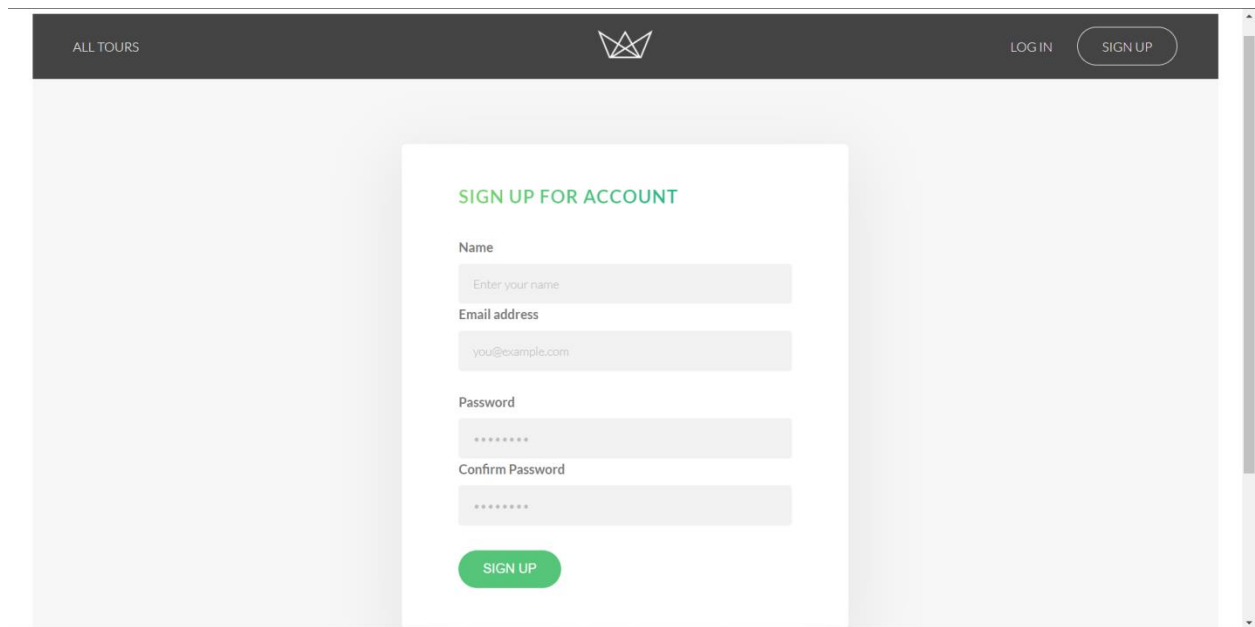


Snapshot 9

In Snapshot 9, the user email address is incorrect but the alert shows for both email and password which tells a user will not be able to figure out which credential is incorrect if they try to log in to another user's account.

SIGN UP PAGE:

On the right side of the navigation bar there are two buttons, one for login and the other for sign up. In order to book a tour, the user needs to sign up first if he/she has not registered for a web application. The user has to enter their name, email address, password and confirm password to register for the web application. (Snapshot 10)



ALL TOURS

LOGIN SIGN UP

SIGN UP FOR ACCOUNT

Name

Email address

Password

Confirm Password

SIGN UP

Snapshot 10

ALL TOURS

LOGIN SIGN UP

SIGN UP FOR ACCOUNT

Name

Eliana Stout

Email address

eliانا@example.com

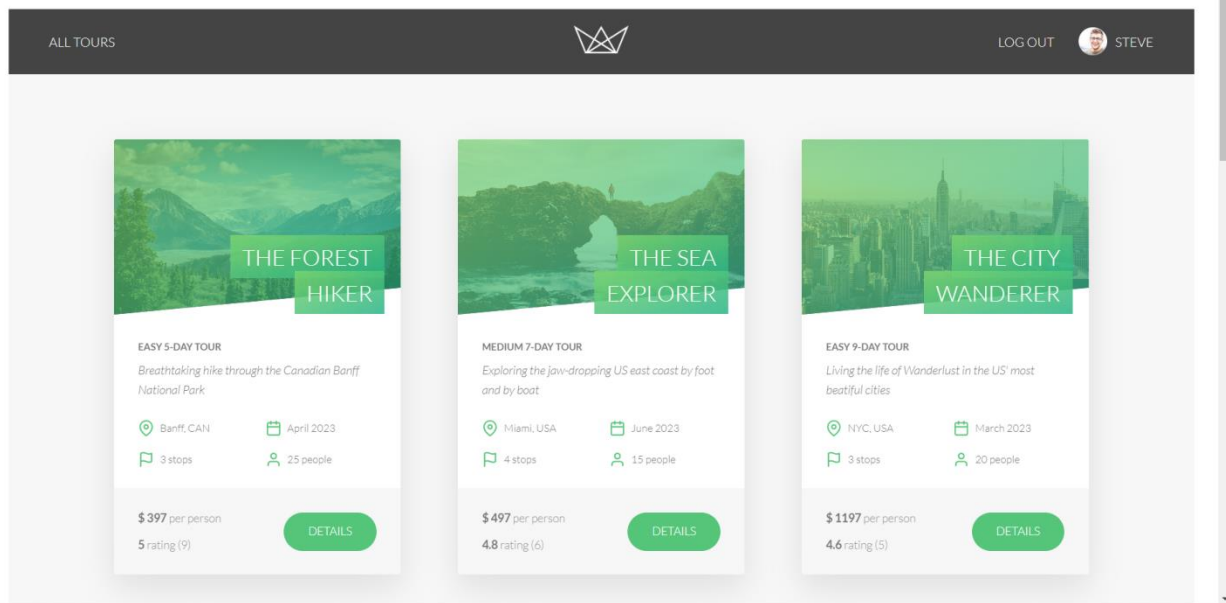
Password

Confirm Password

SIGN UP

Snapshot 11

When the user finally registers them, they are redirected to the login page (Snapshot 5) where they can enter their credentials to login to the application and access the functions like booking of the tour and make payment for the tour.

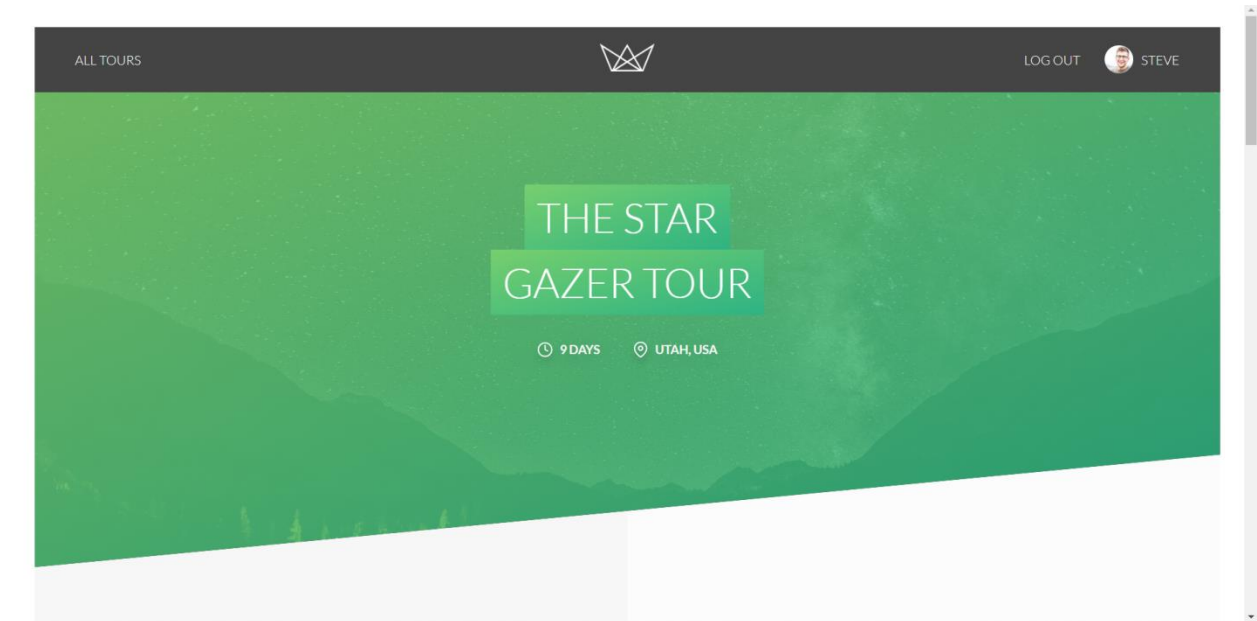


Snapshot 12

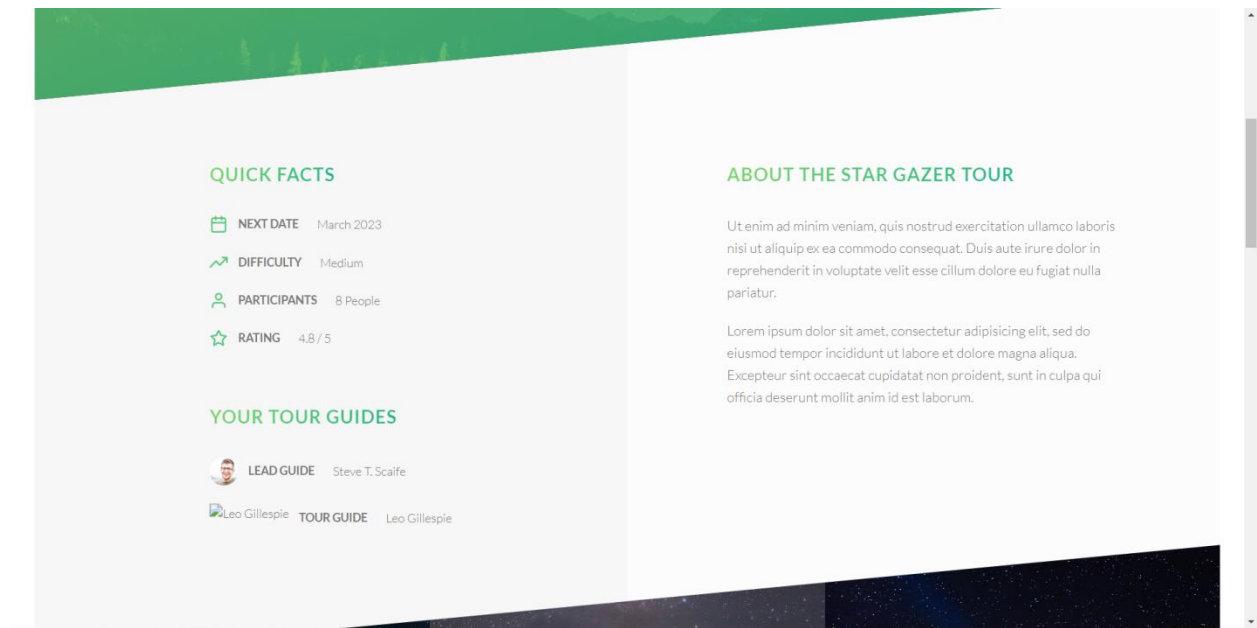
After successful login the home page will look like Snapshot 12. Here, on the top right corner we can now see the logout button and the username with the user photo. When we click on the logout button it will logout the user and redirect them to the home page (Snapshot 1).

TOUR PAGE:

When a user click on a tour from the homepage, they are taken to tour page where they can see all the details related to that particular tour, reviews by other users and book the tour.

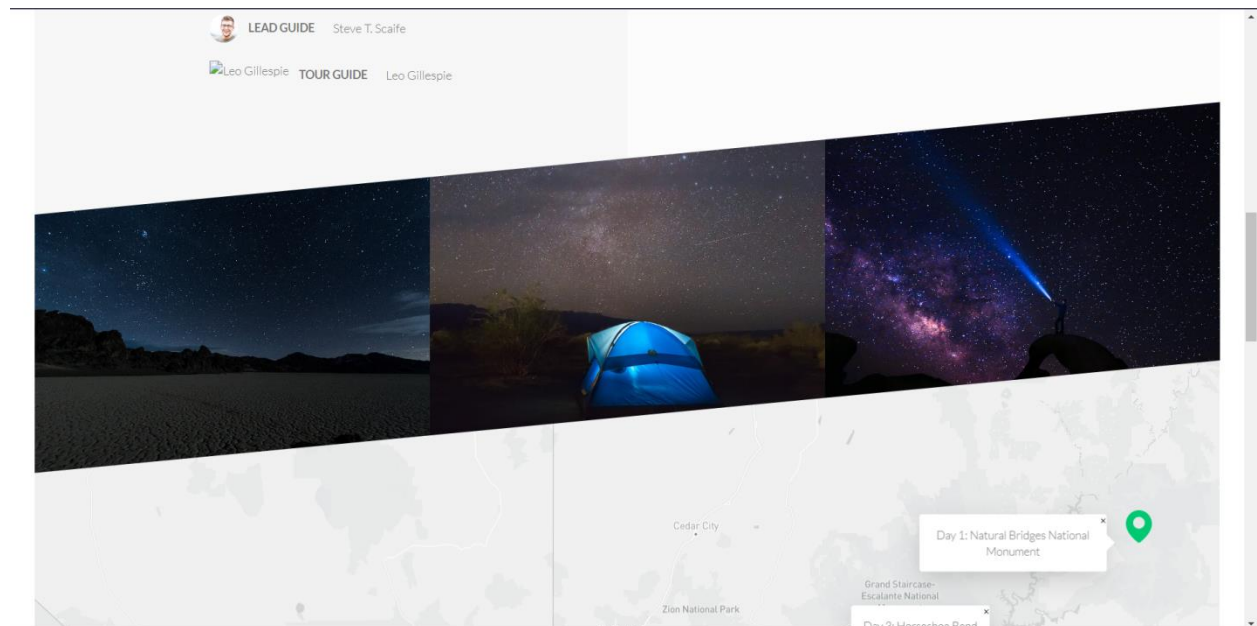


Snapshot 13

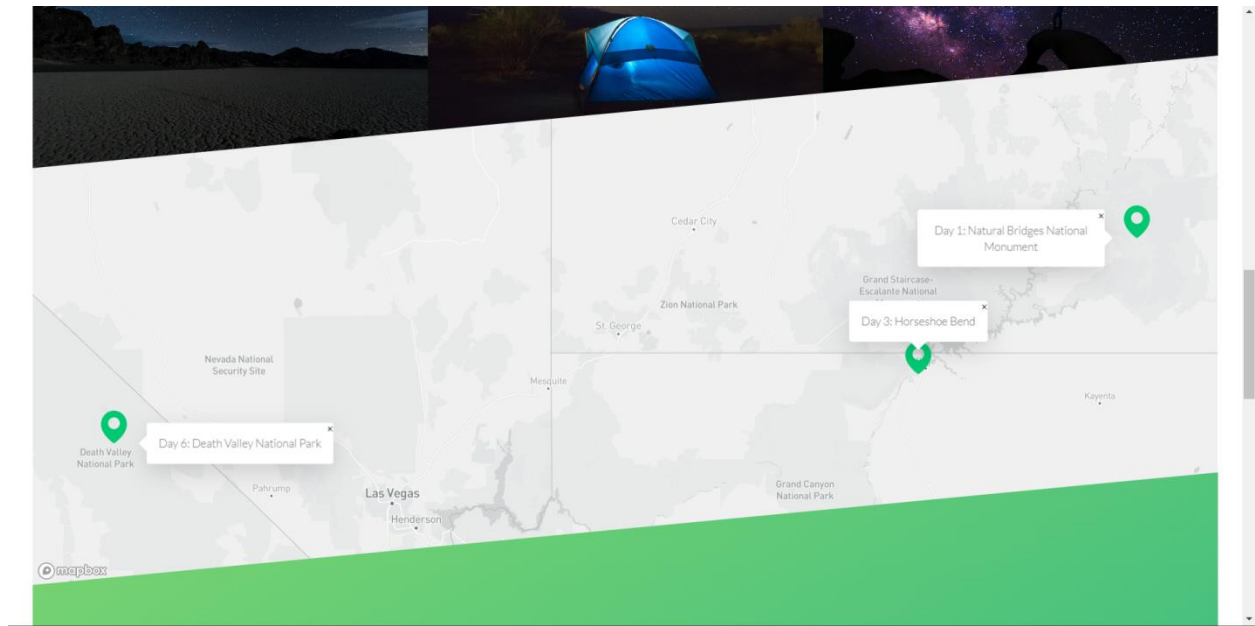


Snapshot 14

Users can see when the next tour starts, what the difficulty level of the tour is, how many participants are there in the tour and what the rating of the tour is. The tour page also tells who the guides are for the tour (Snapshot 14).

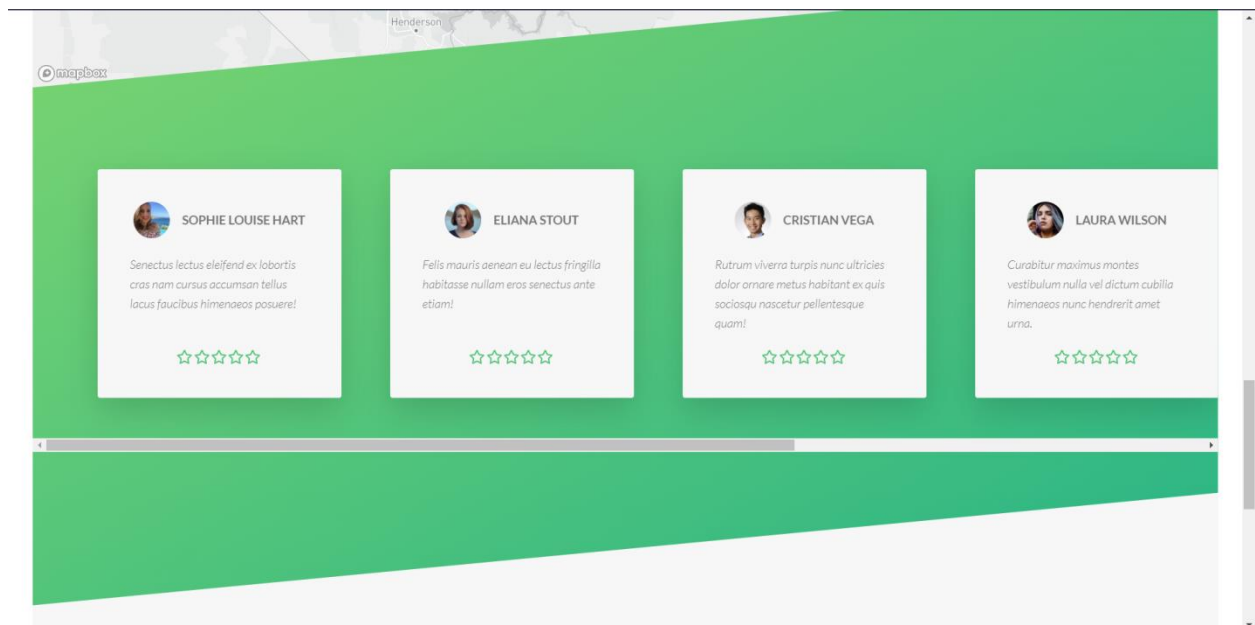


Snapshot 15

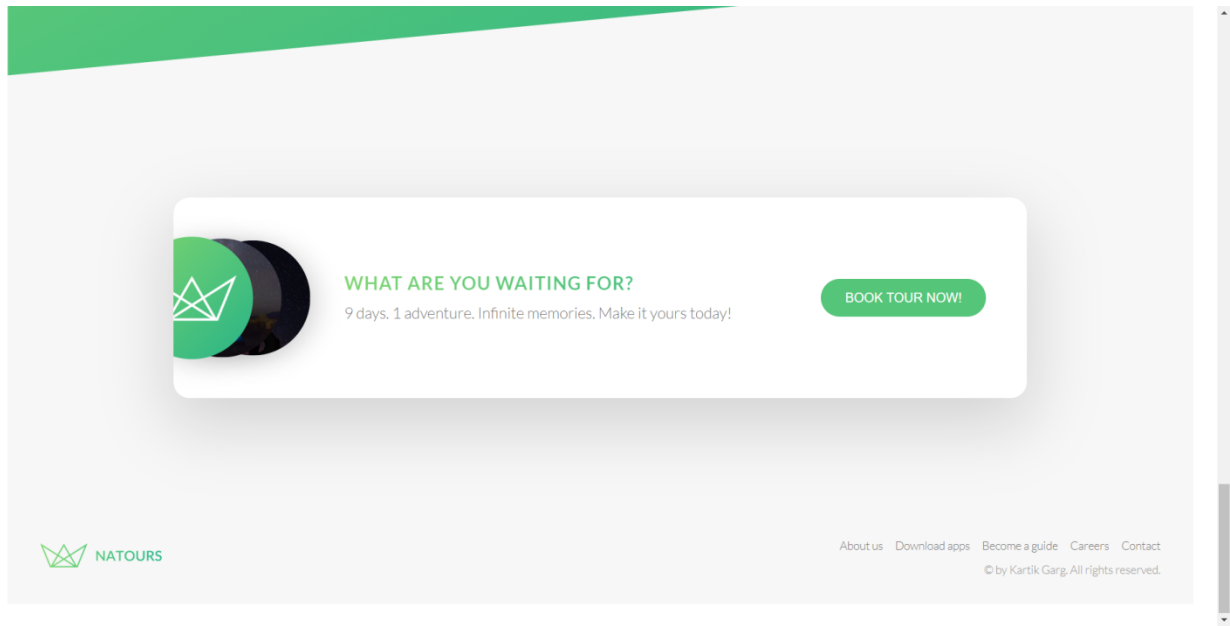


Snapshot 16

The map is integrated so the user can see where they will be visiting when going on tour (Snapshot 16).



Snapshot 17

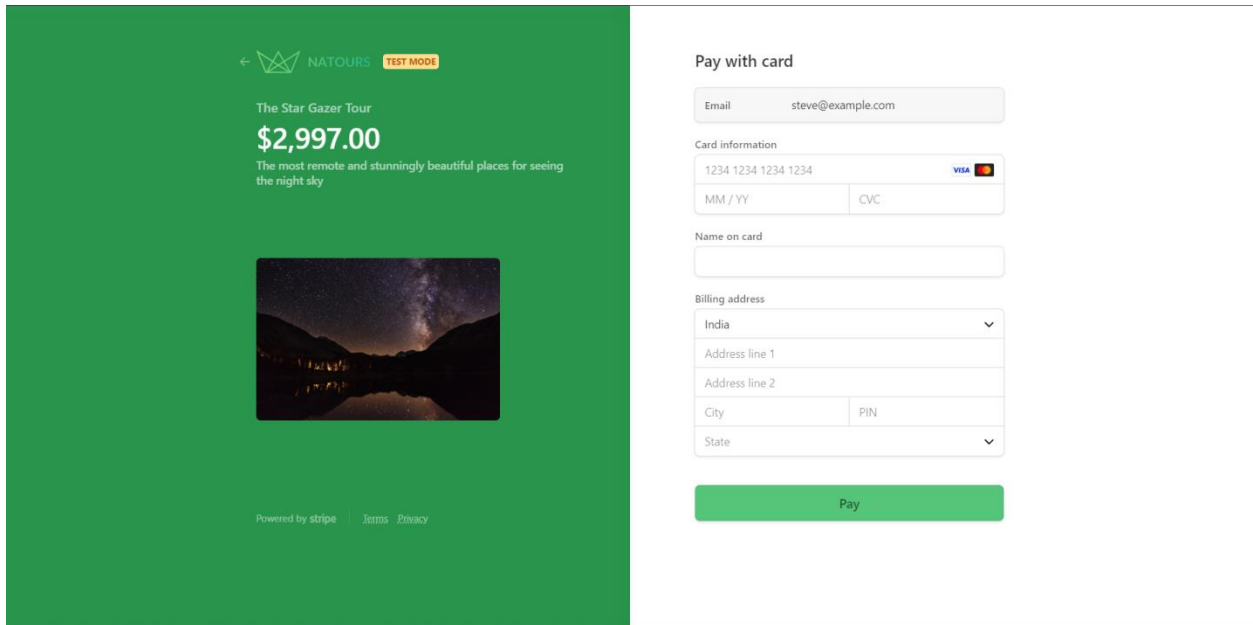


Snapshot 18

The user can book the tour by clicking on “BOOK TOUR NOW!” button (Snapshot 18). On clicking they will be taken to the payment page where they can pay for the tour. (Snapshot 19)

PAYMENT PAGE:

When making payment the logged in mail id is used and it is also displayed while making the payment. Users can enter their card information and billing address to make payment for booking the tour (Snapshot 20).



The image shows a payment page for 'The Star Gazer Tour' on the NATOURS website. The page has a green background. On the left, there's a section with the tour name, price (\$2,997.00), a description, and a photo of a night sky. On the right, there's a 'Pay with card' form. The form includes fields for Email (steve@example.com), Card information (1234 1234 1234 1234, MM/YY, CVC), Name on card, Billing address (India, Address line 1, Address line 2, City, PIN, State), and a 'Pay' button.

← NATOURS TEST MODE

The Star Gazer Tour
\$2,997.00
The most remote and stunningly beautiful places for seeing the night sky

Powered by stripe | Terms Privacy

Pay with card

Email steve@example.com

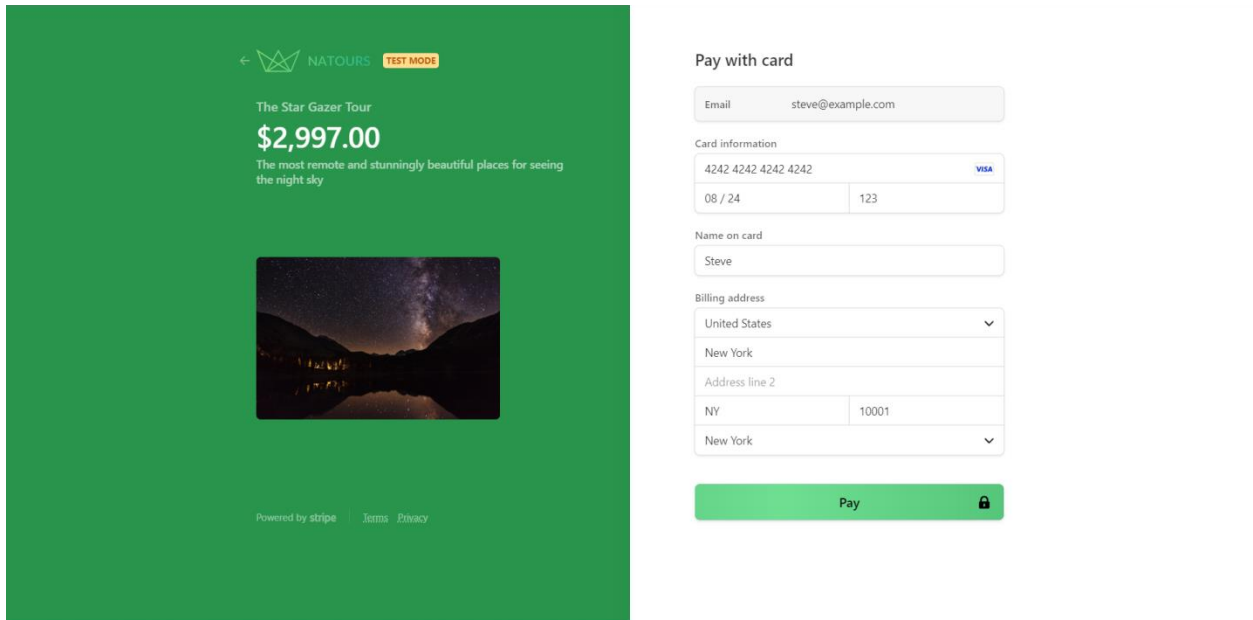
Card information
1234 1234 1234 1234 VISA
MM / YY CVC

Name on card

Billing address
India
Address line 1
Address line 2
City PIN
State

Pay

Snapshot 19



The image shows a payment page for 'The Star Gazer Tour' on the NATOURS website. The page has a green background. On the left, there's a section with the tour name, price (\$2,997.00), a description, and a photo of a night sky. On the right, there's a 'Pay with card' form. The form includes fields for Email (steve@example.com), Card information (4242 4242 4242 4242, 08/24, 123), Name on card (Steve), Billing address (United States, New York, Address line 2, NY, 10001, New York), and a 'Pay' button.

← NATOURS TEST MODE

The Star Gazer Tour
\$2,997.00
The most remote and stunningly beautiful places for seeing the night sky

Powered by stripe | Terms Privacy

Pay with card

Email steve@example.com

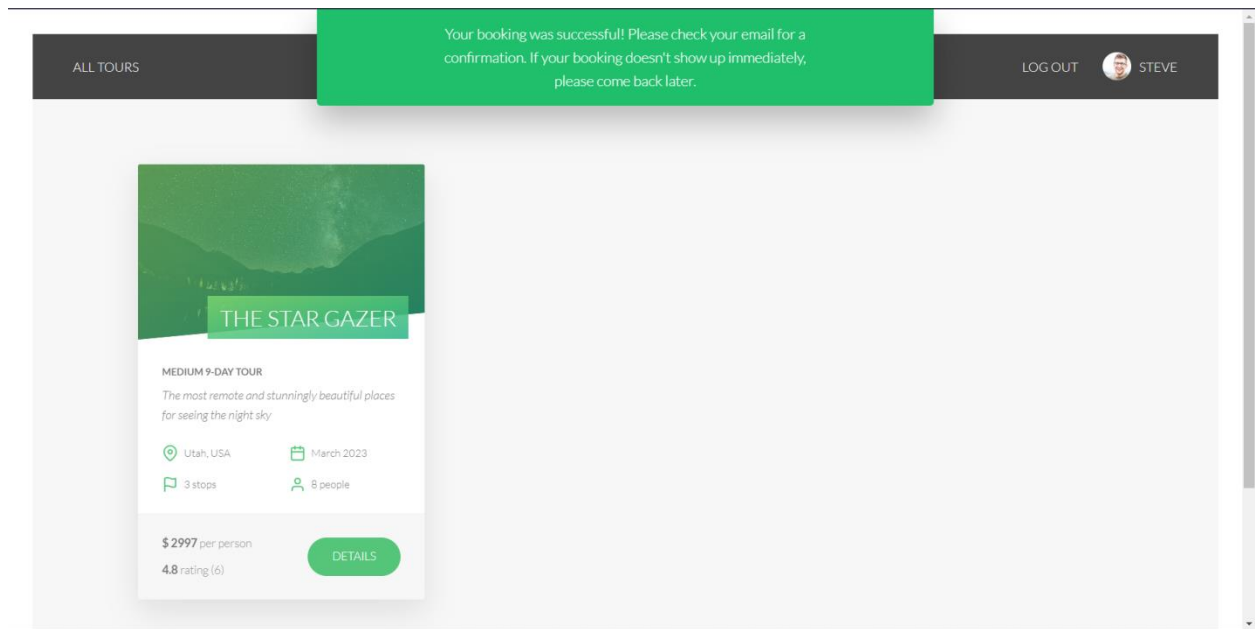
Card information
4242 4242 4242 4242 VISA
08 / 24 123

Name on card
Steve

Billing address
United States
New York
Address line 2
NY 10001
New York

Pay

Snapshot 20

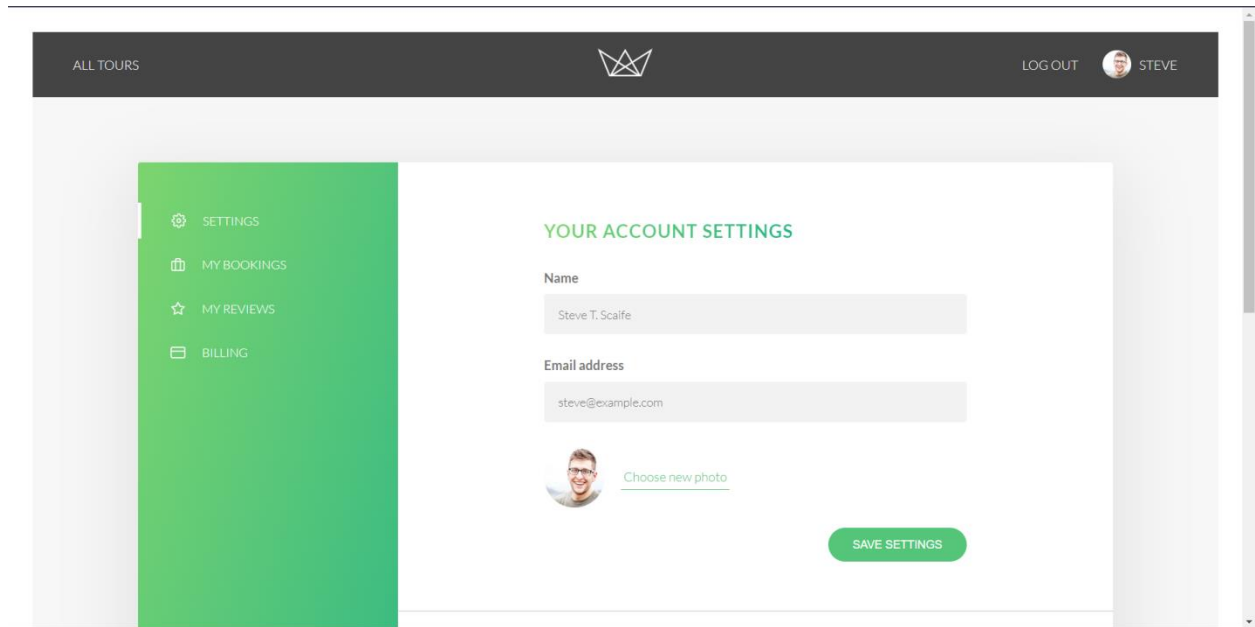


Snapshot 21

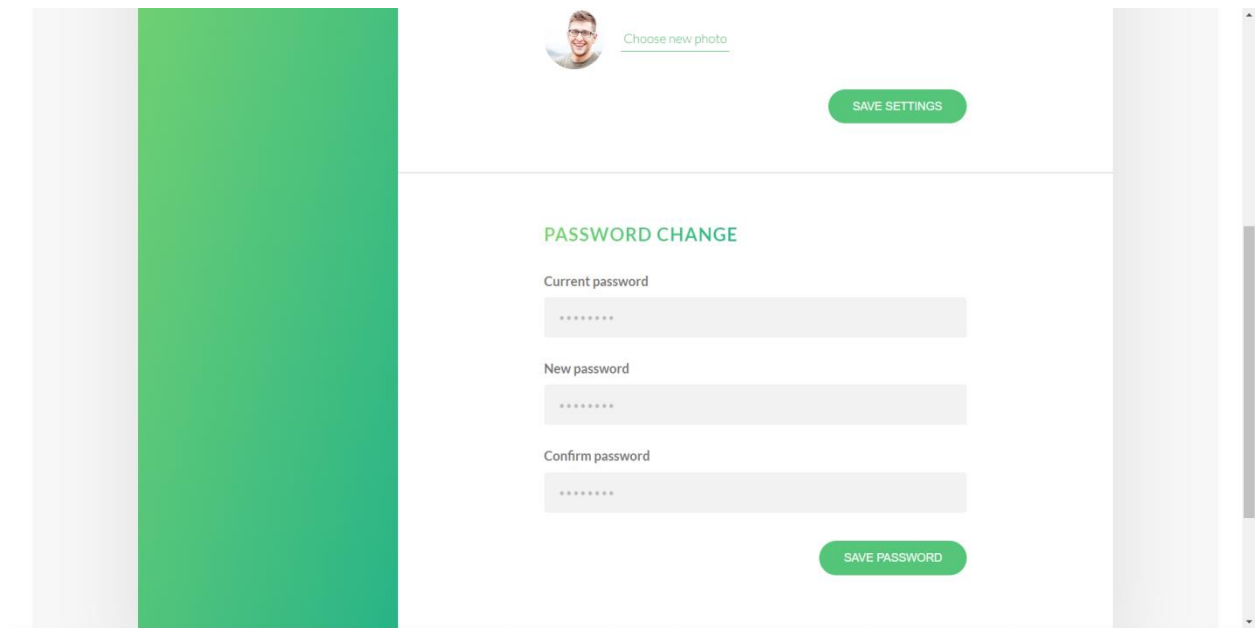
After successful payment, they will be redirected to my bookings page (Snapshot 24) where they can see the tour they have booked. Also, they will get an alert "Your booking was successful! Please check your email for confirmation. If your booking doesn't show up immediately, please come back later." (Snapshot 21)

SETTINGS PAGE:

In the settings page, user can change their name, email address and photo (Snapshot 22).



Snapshot 22



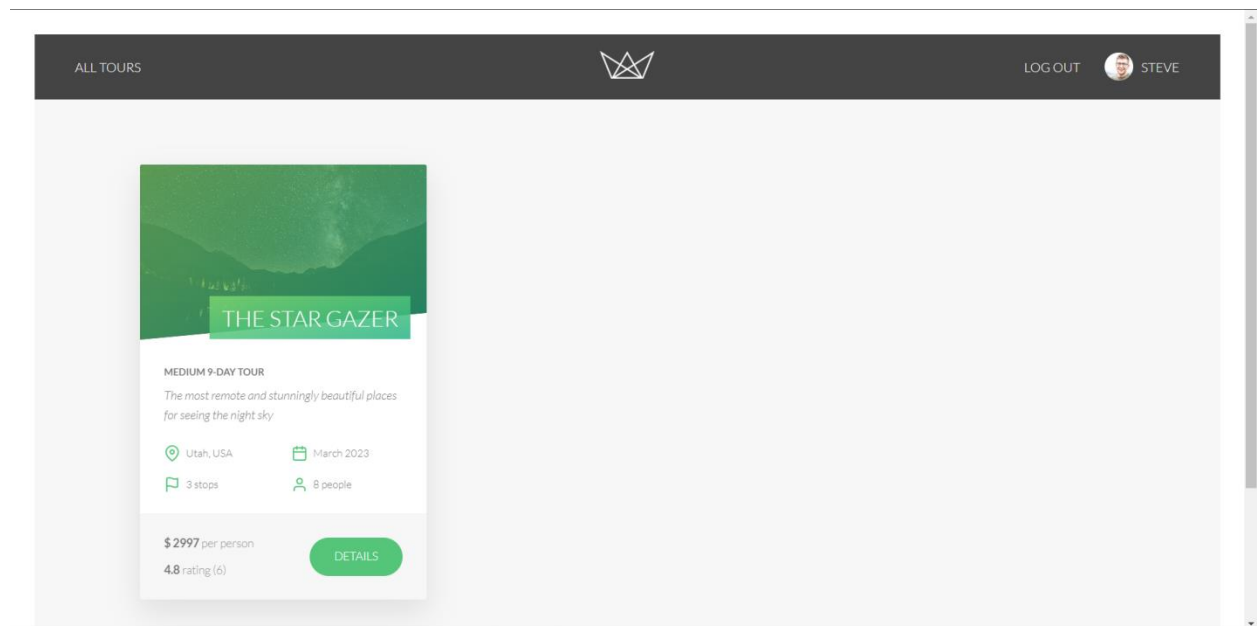
Snapshot 23

Users can also change their password in the settings page. In order to change password, users must enter their current password. If someone tries to change another user's password they won't be able to do it. (Snapshot 23)

Example: "A" is logged in to the website. "B" tries to change "A's" password from "A's" system. But, "B" won't be able to change "A's" password since "B" would require the current user password which "B" doesn't have which saves "A" from "B".

MY BOOKINGS PAGE:

Tours booked by the user will display in my bookings page. To go to my bookings page the user will have to go to settings (Snapshot 22) where they will find the “My Bookings” button. When they click on the button they will be taken to my bookings page (Snapshot 24).

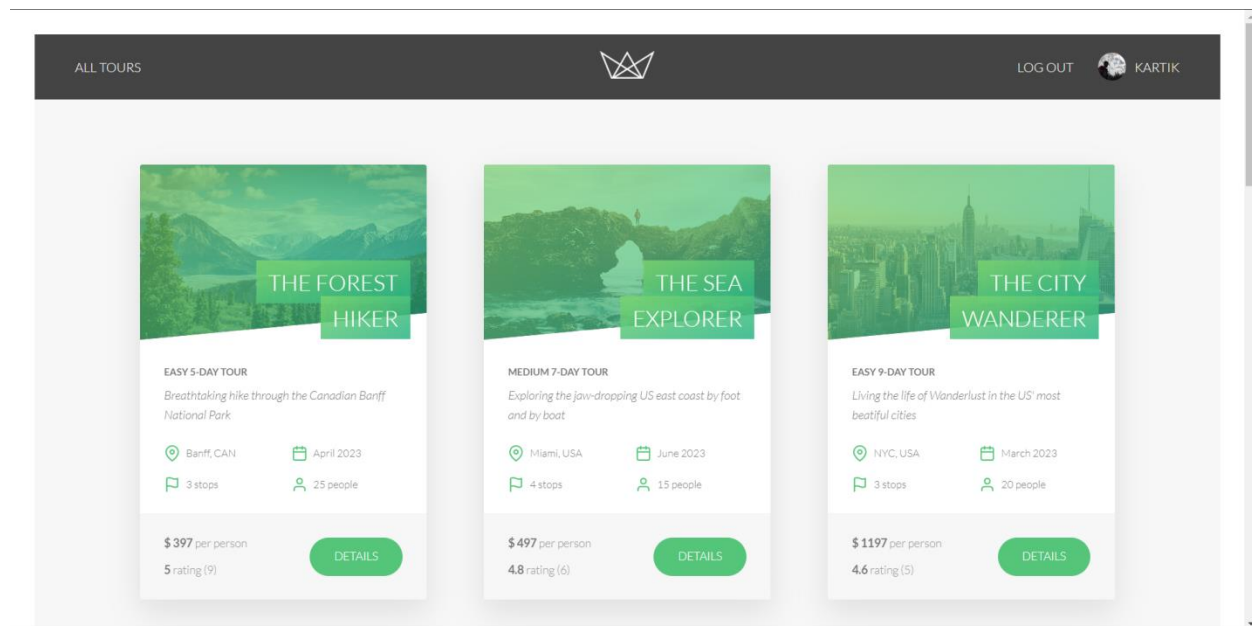


Snapshot 24

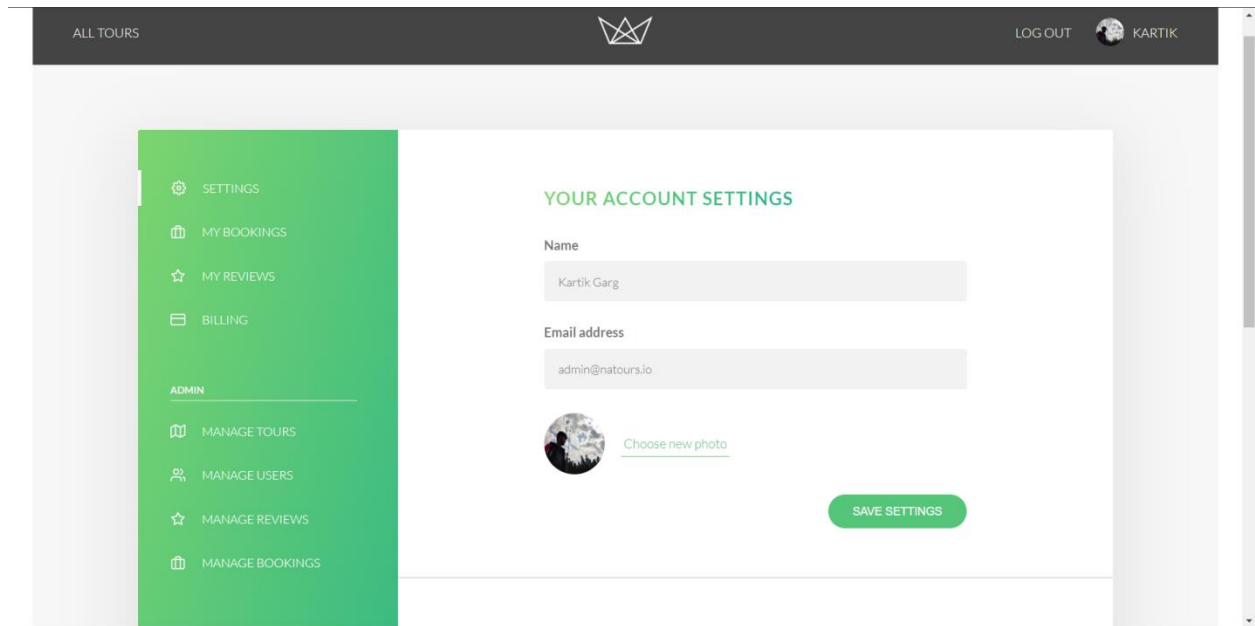
ADMIN VIEW

Admin is the controller of the website. He/she can login using their credentials. Our website can have only one admin at a time because of the security issues.

Admin's view is the same as that of the user's view. (Snapshot 25)




Snapshot 25



Snapshot 26

Admin's settings page is different from the user's settings page. Here, the admin can manage tours, reviews, users and bookings. (Snapshot 26)


Natours


Activate payments

Search

Create

Help





Home

Payments

Balances

Customers

Products

Reports

Connect

More

TEST DATA

Developers

Test mode

Payments

All payments

All transactions

Fraud & risk

Invoices

Subscriptions

Quotes

Payment links

Payments

All

Succeeded

Refunded

Uncaptured

Failed

Date

Amount

Status

Payment method

Export

Create payment

Clear Filters

| | AMOUNT | | DESCRIPTION | CUSTOMER | DATE | |
|--------------------------|----------------|-----------|-----------------------------|-------------------------|-----------------|-----|
| <input type="checkbox"/> | \$2,997.00 USD | Succeeded | pi_3Lne1v5GjCDtk4Hv8SP21hNk | steve@example.com | Sep 30, 2:10 PM | ... |
| <input type="checkbox"/> | \$997.00 USD | Succeeded | pi_3Lrxv5GjCDtk4Hv1XtPtN8 | max@example.com | Sep 17, 9:15 AM | ... |
| <input type="checkbox"/> | \$497.00 USD | Succeeded | pi_3LekMUSGjCDtk4Hv1D8Y6nub | laura@example.com | Sep 6, 12:29 AM | ... |
| <input type="checkbox"/> | \$2,997.00 USD | Succeeded | pi_3LekIDSgJCDtk4Hv0kosZBkQ | laura@example.com | Sep 6, 12:15 AM | ... |
| <input type="checkbox"/> | \$2,997.00 USD | Succeeded | pi_3LeJtgGjCDtk4Hv1uTKA1v6 | laura@example.com | Sep 5, 11:49 PM | ... |
| <input type="checkbox"/> | \$397.00 USD | Succeeded | pi_3LeLW6SGjCDtk4Hv1N7W0v5h | laura@example.com | Sep 4, 9:47 PM | ... |
| <input type="checkbox"/> | \$2,997.00 USD | Succeeded | pi_3LeKgoSGjCDtk4Hv0LI8bw13 | kartikgarg386@gmail.com | Sep 4, 8:54 PM | ... |
| <input type="checkbox"/> | \$1,497.00 USD | Succeeded | pi_3LeJj1SGjCDtk4Hv0G2AgOG | laura@example.com | Sep 4, 7:53 PM | ... |

8 results

Previous

Next

Snapshot 27

Only the admin can see this payment page. Admin can see which user made the payment. This payment page shows the customer name, amount paid by the customer and transaction date. (Snapshot 27)

DATA MANAGEMENT

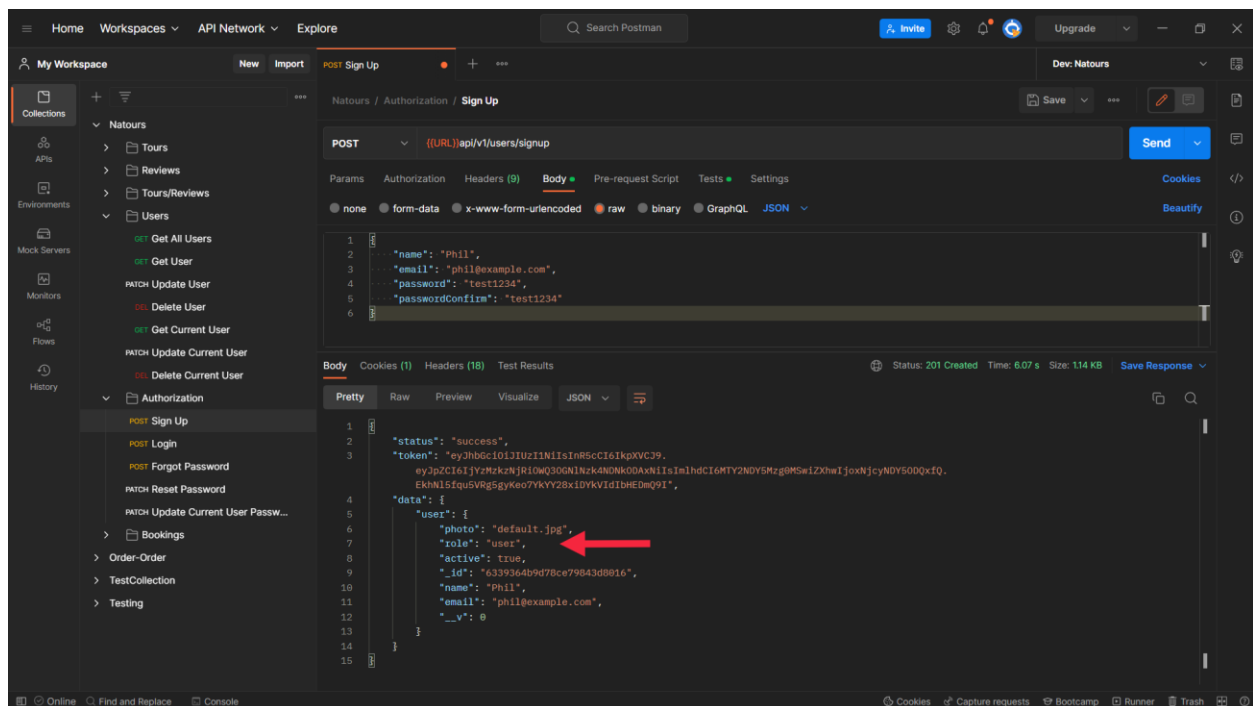
DATA DESCRIPTION:

A database is the collection of data stored in an organized manner making it easy to access, update and manage data. Natours database consists of four tables – users, tours, reviews and bookings.

1. **USERS** – All the visitors who become users fill up a signup form, all the details entered in that signup form are stored in users database. Also the details of the admin are also stored in this table.
2. **TOURS** – The tours created by the admin by entering the detailed information of the tour is stored in the table. Also the reviews entered by the user's are also in this table.
3. **REVIEWS** – All reviews are stored in the reviews database. It has all the reviews with the tour and user information.
4. **BOOKINGS** – The bookings done by the user are all stored in the bookings database. It contains which user has booked which tour and paid for the tour.

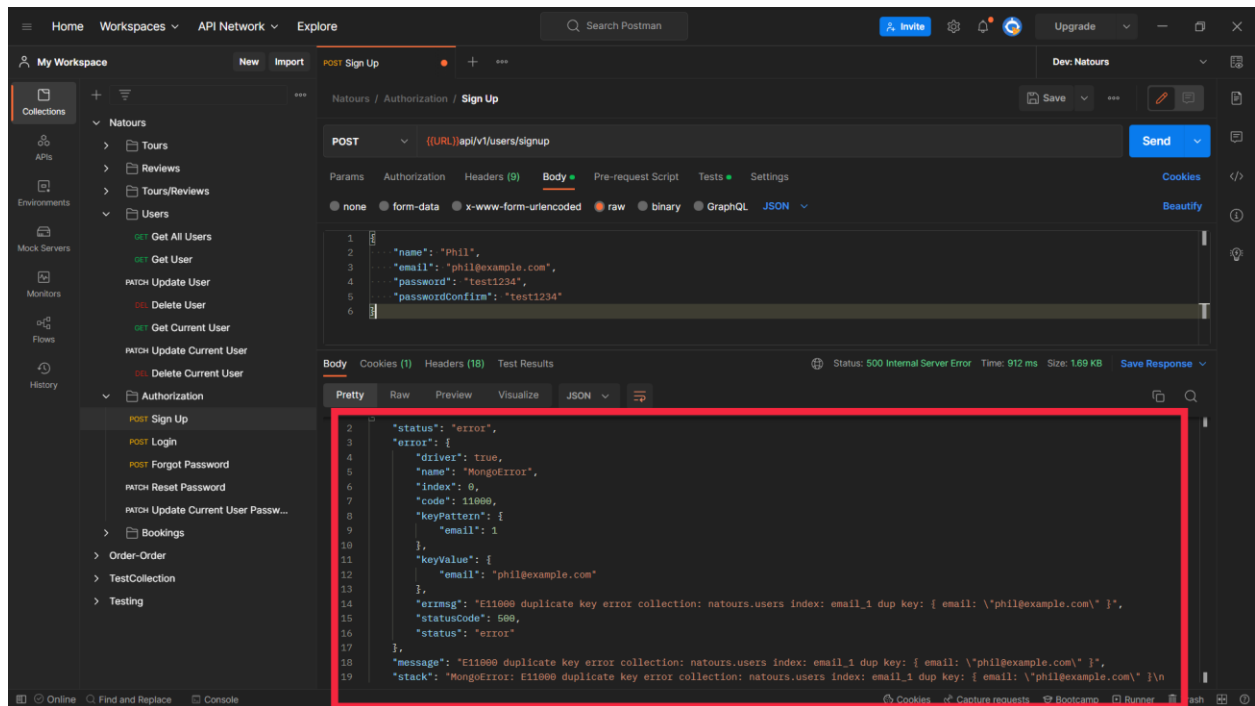
IMPLEMENTATION

While signing up in postman, user information is entered which is name, email, password and confirm password. When we click on the send button it creates a user in the database. Also, it shows the status in the console of postman what information is being added to create the user.



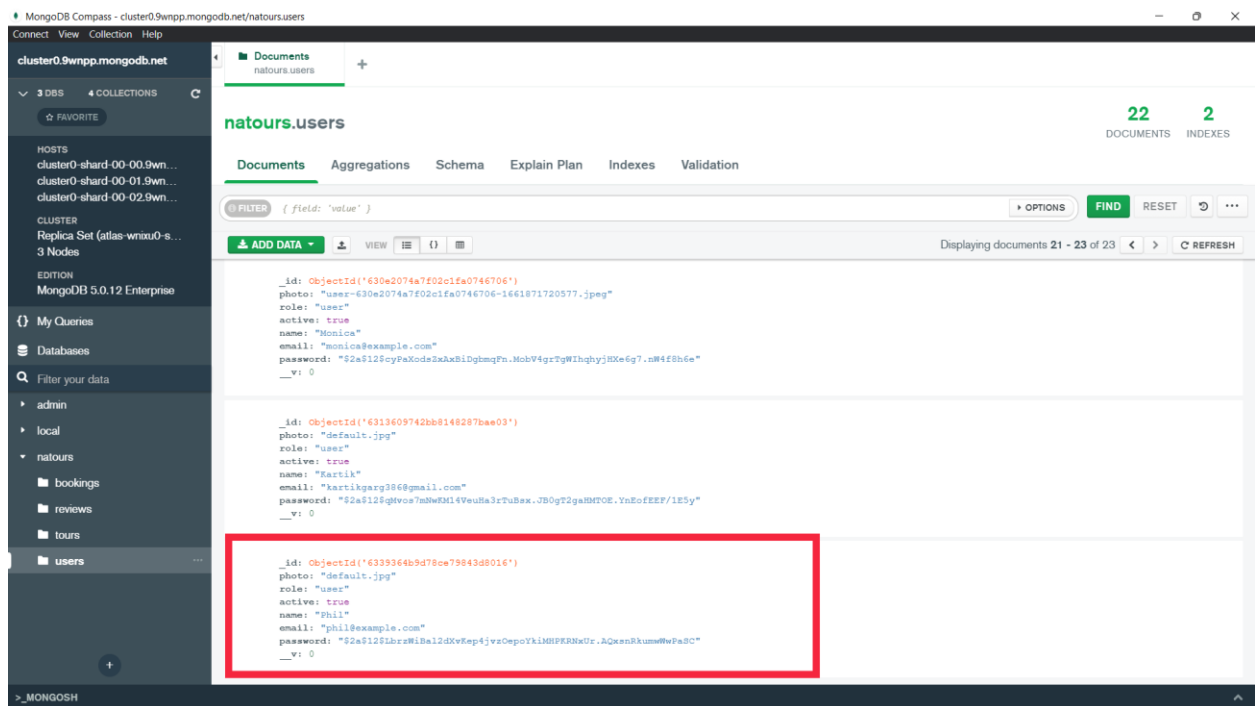
Snapshot 28

In Snapshot 28, we entered the name of the user for signing up, email address, password and confirm password. When we click on the send button it creates a user and shows that the status for creating the user is success. While creating the user we didn't give any information about the user photo and role. It gave the user the default photo and the role.



Snapshot 29

In Snapshot 29, if any user tries to sign up with the already registered email address it will throw an error since the registered email address is present in the database which prevents creating duplicate accounts with the same email address.



Snapshot 30

Snapshot 30 shows successful creation of the user in the database with all the required information. Passwords are encrypted in the database so that no one can have access to any user password.

CONCLUSION & FUTURE SCOPE

CONCLUSION:

This application will be very beneficial to people as they don't have to worry about how the experience will be. People can see the reviews by the other people who have been to that tour which will help them make up their mind to book for themselves. People can easily book from anywhere they want without going to the agencies for booking.

FUTURE SCOPE:

I think this project will be very beneficial because there is no need to go anywhere. And in today's time people can visit the web application anytime. People wouldn't worry about the experience because they can read through the reviews which in earlier times weren't possible for those who wish to go for the tour.

In the future, there will be more tours. More tour guides for the tour. Tour size for the people will be more. More fun, challenging and adventurous tours are on its way.

People should be ready for all this to make memories which will be remembered whenever they look down the memory lane.

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<https://expressjs.com/>

<https://mongoosejs.com/docs/documents.html>

<https://stripe.com/docs/development>

<https://www.mongodb.com/docs/manual/tutorial/getting-started/>

<https://pugjs.org/api/getting-started.html>

<https://developer.mozilla.org/en-US/docs/Web/JavaScript>

<https://developer.mozilla.org/en-US/docs/Web/CSS>

“THANK YOU”