FULL STACK PROJECT REPORT
on

TRAVEL CAMPS & ACTIVITIES WEBSITE

Submitted by

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DECLARATION

We hereby declare that the work which is being presented in the Full Stack Project report **"TRAVEL CAMPS & ACTIVITIES WEBSITE "** in fulfillment of the requirements for Full Stack Project is an authentic record of our own work carried under the supervision of mentor **Mr. Pankaj Kapoor.**

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ABSTRACT

A full stack developer is a web developer or engineer who works with both the front and back ends of a website or application—meaning they can tackle projects that involve databases, building user-facing websites, or even work with clients during the planning phase of projects.

Full stack development refers to the development of both front end and back end portions of an application. This web development process involves all three layer- Presentation layer (front end part that deals with the user interface), Business Logic Layer (back end part that deals with data validation) and the database Layer. It takes care of all the steps from the conception of an idea to the actual finished product.

The Full Stack Developer is proficient in:

- Writing optimized front-end code in HTML, Java, JavaScript
- Creating and using APIs and writing backend code in Ruby, Python/Java
- Working with system infrastructure including hardware and OS

Here we are creating a website named '**TRAVEL CAMPS & ACTIVITIES WEBSITE'** of with the help of HTML, CSS, JavaScript and Semantic UI.

Contents

GitHub Repo: https://github.com/Ayushtwentysix/Travel-Camps-Activities-Website

Live Website: https://parasharlakekishnacamp.com/

1. Introduction

Adventure tourism is a niche tourism activity involving exploration or travel to remote area, where the traveler should expect the unexpected. Adventure tourism has grown exponentially worldwide over the past few years. To harness this market the best way is to have a digital medium where people can access information about treks & camps easily. To do this, a website is a good & cheap option. Most of the hill stations like Manali, Ooty, Mussoorie etc. attracts a huge crowd. But nature lovers can't enjoy the beauty of mountains in such a dense crowd. So, they opt for camps & activities that are taken by low number of people. This website will list all the camps, treks & various activities that happen around Prashar Lake & Mandi. Prashar lake is in Himachal Pradesh. It is not a favorite option for general crowd. So, the overall cost of treks, traveling & staying is quite moderate in peak season. The website will have in total 9 treks, river rafting & paragliding. It will also have an option of only camping & bonfire. The interface will be easy to use & website will quickly scale with increasing traffic load. It will be hosted on firebase. Firebase acts Platform as a Service(PaaS) & is a very popular service. We can also use the CDN feature of firebase to improve page loading efficiency in slow internet connection.

The first webpage will contain images in background and a button to invite the users to check the website. Second webpage will be a homepage & it will showcase various categories. The third page will contain list of various treks and description about each trek. Each trek page will have few images, specialties, overview & itinerary along with cost of trek. Rest of the pages will be about activities like gliding, rafting & camping.

1.1 MOTIVATION:

Tourism remains one of the largest employers' accounting for 9% of global GDP and accounts for one in every 11 jobs. Tourists explore new destinations looking for rare, incomparable experiences. In 2012, global tourism arrivals passed the one billion mark. As one of the fastest growing segments adventure tourism arrivals increased as well.

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In 2013, it was found that there was an increase of 195% in two years, making the sector worth USD 263 million. It was found in the study that 42% of travelers departed on adventure trips. We can witness the same craze in India as well. Youth is now opting for adventure tourism spots more than ever.

This opens doors for entrepreneurial opportunities as well. To easily convert it to business, flow of information

about our camps & treks is first most step. The easiest solution to this a website. A website can easily provide information in a systematic manner. We can also put images & original details about the treks & activities.

1.2 OBJECTIVES:

To Build a Travel Camps & Activities website using HTML, CSS and JavaScript using Sublime text platform. Web development has potential and lots of scope in it so it will help me in future. This website enables us to view various treks, camps, activities like river rafting, paragliding etc. We can also easily share the webpage on various platforms.

Comments on the various treks is most important. So, it is necessary to integrate it well into the website.

1.2 SOFTWARE REQUIREMENT

1. Any OS
2. Web Browser
3. GCP (firebase) Account
4. Brackets

1.3 HARDWARE REQUIREMENT

1. Internet Connection
2. A Basic PC i.e. :
   a) 1 GB RAM
   b) 1.4GHz 64-bit quad-core
   c) A Display
   d) Keyboard and Mouse

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2. Anatomy of a Dynamic Website

Front End: A front-end developer is a web developer that codes the front end of a website. While web design is the way a website looks, front end development is how that design gets implemented on the web. The "front-end" of a website refers to the technology involved in the visual rendering of data in the client's web browser. There are many elements that come together to make this happen including, but not necessarily limited to:

- HTML (Hypertext Markup Language)
- DOM (Document Object Model)
- CSS (Cascading Style Sheets)
- JavaScript/JQuery (or other client-side API/Framework)
- Mobile Device Design Optimization

HTML: The primary purpose of HTML in a web document is to structure the data into something that the browser can read from and then render the read data into a visual format for a user.

DOM*:* The Document Object Model is the representation of the HTML structure as objects that can be manipulated using client-side scripting languages like CSS or JavaScript.

CSS*:* Cascading Style Sheets are an extremely powerful and effective tool for adding client-side styling and functionality like image rollovers, once only accomplished using JavaScript.

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JavaScript/JQuery/Client-Side API: JavaScript is a client-side scripting language that enables developers to deliver a "rich" user experience. This "rich" experience is based on many elements aside from client-side scripting, such as clear and easy navigation, but the term has become hitched to the concept of dynamic mouse-over effects, smooth transitions, and AJAX interaction. JQuery is a powerful JavaScript API library that allows you to create complex JavaScript effects with very little effort and will be chosen for this article.

Mobile Device Design Optimization: Most web searches are now, and have been for years, conducted on mobile devices. While web development for desktop platforms will continue to thrive, it has become a requirement to create an alternate layout that is optimized for small screens and touch based user input.

Client-Side vs Server-Side: By design, and for security reasons, the client-side languages like JavaScript are not able to access the server and perform server-related tasks. This is why there are server-side languages like PHP and client-side languages like JavaScript.

Databases & Data Storage: Another key component to the back-end is the storage and retrieval of data. There are markup style formats like XML and JSON that allow you to store and organize data in text files. With the correct functions in PHP you can access the data in those text files much like you would records in a database

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3. MODULES

3.1 Creating structure of Travel Camps & Activities Website System:

The first page of the webpage is a landing page that have various images changing in the background. The aim of this page is to improve Search Engine Optimization as the payload of this page is lowest among all other pages.

The website comprises of home page where all the information is given along with the navbar to toggle through various other topics attached with the main site i.e Home, Treks, Paragliding, River Rafting   and other activities. The main page contains the basic information of the company that organize the treks and showcase various segments of activities. There is a main gallery that show case all the activities available. The activities panel contains the information of the various treks, comprising of the nine popular treks which take us to their individual trek page. It also have an other activities panel that allow the tourists to get access to taxi hiring service & guest house.

The next module of the activities contains the solo bonfire page which let the tourists surf the site accordingly. The next two module are about river rafting and Paragliding.

These different modules when combined together give a very smooth and user-friendly approach to website.

3.2 Adding CSS to the website:

With the help of CSS, you can have a control over the various elements in different web pages of your site. CSS only defines the structure and content presentation of a website. It has nothing to do with the design of a website. However, the CSS influences how the design will look like after the final process is over. CSS or cascading style sheets have made the development of web pages a lot easier. CSS allows you to easily link to other documents in a website.

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The style sheet is loaded only once and is stored in the cache memory.

You can control the font, positioning, color and style information of an entire website with the help of a single CSS sheet.

Therefore, it can be said that CSS plays a very significant role in a web design. It contributes in making it simple and user friendly. Hence, you must ensure that the company you hire for custom web design is well equipped with CSS.

Advantages of CSS:

1) **Consistency**

By making one change to your website's CSS style sheet, you can automatically make it to every page of your website. The bigger your website, the more time CSS saves you. And not only does CSS save time, it also ensures that your web pages have consistent styling throughout your site.

2) **Browser Compatibility**

The recent arrival of Google Chrome is further evidence that today's Internet users have more browser options than ever before, which makes browser compatibility a major issue for your website. CSS stylesheets increase your website's adaptability and ensure that more visitors will be able to view your website in the way you intended.

3) **Search Engines**

CSS is considered a clean coding technique, which means search engines won't have to struggle to "read" its content. Also, using CSS will leave your website with more content than code – and content is critical to your search engine success.

4) Bandwidth Reduction

When CSS separates your website's content from its design language, you dramatically reduce your file transfer size. Your CSS document will be stored externally, and will be accessed only once when a visitor requests your website. In contrast, when you create a website using tables, every page of your website will be accessed with each visit. Your reduced bandwidth needs will result in a faster load time and could cut your web hosting costs.

Types of CSS:

CSS comes in three types:

- In a separate file (**external**)
- At the top of a web page document (**internal**)
- Right next to the text it decorates (**inline**)

External style sheets are separate files full of CSS instructions (with the file extension .css). When any web page includes an external stylesheet, its look and feel will be controlled by this

CSS file (unless you decide to override a style using one of these next two types). This is how you change a whole website at once. And that's perfect if you want to keep up with the latest fashion in web pages without rewriting every page!

Internal styles are placed at the top of each web page document, before any of the content is listed. This is the next best thing to external, because they're easy to find, yet allow you to 'override' an external style sheet -- for that special page that wants to be a nonconformist!

Inline styles are placed right where you need them, next to the text or graphic you wish to decorate. You can insert inline styles anywhere in the middle of your HTML code, giving you real freedom to specify each web page element. On the other hand, this can make maintaining web pages a real chore!

3.3 Adding JavaScript to the website:

JavaScript is a dynamic computer programming language. It is lightweight and most commonly used as a part of web pages, whose implementations allow client-side script to interact with the user and make dynamic pages. It is an interpreted programming language with object-oriented capabilities. JavaScript is a scripting language that enables you to create dynamically updating content, control multimedia, animate images, and pretty much everything else. (Okay, not everything, but it is amazing what you can achieve with a few lines of JavaScript code.).

JavaScript is a scripting or programming language that allows you to implement complex things on web pages — every time a web page does more than just sit there and display static information for you to look at — displaying timely content updates, interactive maps, animated 2D/3D graphics, scrolling video jukeboxes, etc. — you can bet that JavaScript is probably involved. It is the third layer of the layer cake of standard web technologies, two of which (HTML and CSS) we have covered in much more detail in other parts of the Learning Area.

Advantages of JavaScript

The merits of using JavaScript are −

1) Less server interaction − You can validate user input before sending the page off to the server. This saves server traffic, which means less load on your server.
2) Immediate feedback to the visitors − They doesn't have to wait for a page reload to see if they have forgotten to enter something.

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3) Increased interactivity − You can create interfaces that react when the user hovers over them with a mouse or activates them via the keyboard.

4) Richer interfaces − You can use JavaScript to include such items as drag-and-drop components and sliders to give a Rich Interface to your site visitors.

Client-Side JavaScript

Client-side JavaScript is the most common form of the language. The script should be included in or referenced by an HTML document for the code to be interpreted by the browser.

It means that a web page need not be a static HTML, but can include programs that interact with the user, control the browser, and dynamically create HTML content. The JavaScript client-side mechanism provides many advantages over traditional CGI server-side scripts. For example, you might use JavaScript to check if the user has entered a valid e-mail address in a form field. The JavaScript code is executed when the user submits the form, and only if all the entries are valid, they would be submitted to the Web Server. JavaScript can be used to trap user-initiated events such as button clicks, link navigation, and other actions that the user initiates explicitly or implicitly.

4. SEMANTIC UI

4.1 About Semantic UI

Semantic allows developers to build beautiful websites fast, with concise HTML, intuitive javascript, and simplified debugging, helping make front-end development a delightful experience. Semantic is responsively designed allowing your website to scale on multiple devices. Semantic is production ready and partnered with frameworks such as React, Angular, Meteor, and Ember, which means you can integrate it with any of these frameworks to organize your UI layer alongside your application logic.

Semantic empowers designers and developers by creating a shared vocabulary for UI. It is an open source tool with 46.9K GitHub stars and 4.9K GitHub forks. Semantic is a UI framework designed for theming.

As you can see, Semantic UI is not only meaningful and well structured in terms of naming its classes but also in naming, defining, and describing its components. This structure is much more semantic compared to that found in Bootstrap or Foundation.

The second unique thing about Semantic UI is that it provides some exclusive features and components not present in other frameworks. For example, Feed and Comment in the UI Views components or Sidebar and Shape from the UI Modules. Also, when interacting with Semantic UI components you get real-time debug output. Just open up your web console and you'll see your components communicating exactly what they're doing.

Another strength of Semantic UI is that it uses minimal and neutral styling, leaving customization open to you. It includes important and useful things while leaving out additional features that you'll probably never use. Plus, the framework's components are portable and self-contained so you can grab and use only those you need.

The framework uses em and rem units for its elements, making it fully responsive and adaptive to any size. You need only to change the base font and all other elements will adjust accordingly.

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Finally, Semantic UI is very well documented and the website provides many examples for the different components. In addition, it has a style guide with techniques and directions on how to write your code. All this makes learning the framework a pain-free experience.

4.2 Key Features of Semantic UI

1) **Concise HTML:** Semantic UI treats words and classes as exchangeable concepts. Classes use syntax from natural languages like noun/modifier relationships, word order, and plurality to link concepts intuitively.

2) **Intuitive Javascript:** Semantic uses simple phrases called behaviors that trigger functionality. Any arbitrary decision in a component is included as a setting that developers can modify.

3) **Simplified Debugging:** Performance logging lets you track down bottlenecks without digging through stack traces.

4.3 Basic Elements of Semantic UI

1) A **UI Element** is a basic building block. It can appear alone or in uniform groups. For example, a button can be independent or put in a button group.
2) A **UI Collection** is a group of different kinds of elements that are interdependent. For example, a web form can have buttons, inputs, checkboxes, icons, and so forth.
3) A **UI View** represents a common piece of website content. For example, a feed or comments section.

4) A **UI Module** is a component with interactive JavaScript-based functionality. Examples include an accordion, dimmer, modal, and so on.

5) A **UI Behavior** is a component that can't exist independently, but instead is used to inject functionality into other components. For example, the Form Validation behavior provide validation functionality for the Form component.

4.3 Companies using Semantic UI

6) Snapchat

7) Accenture

8) Google Cloud

9) LeVego

5. Introduction to Brackets

·Brackets is an open-source, modern text editor crafted for web developers and front-end developers. This app simplifies the process of coding, allowing coders to share their work through various platforms. It is a lightweight yet powerful development tool that blends visual tools into the editor so you can get the help that you want without limiting your creative process.

The Brackets app has been specifically designed for working in HTML, CSS, and JavaScript. It comes with a crisp, clean interface to make sure that tools wouldn't get in your way. It has a Quick Edit UI which puts context-specific code and tools inline instead of cluttering up your coding environment.

The app also boasts its Live Preview function, a really useful feature that works directly with your browser so that you can push code edits instantly. This feature syncs Brackets with your browser, allowing you to jump back and forth between the real source code and the browser view.

If you wish to work on the CSS that applies to a specific ID, you may do so using Brackets. You only have to put your mouse cursor in that ID and push Command/CTRL + E. The app will then show you all the CSS selectors with that ID in an inline window. That way, you can work on your code side-by-side without any popups.

Brackets works with preprocessors in a new way. It allows you to use Quick Edit and Live Highlight with LESS and SCSS files making working with them easier.

Furthermore, the app comes with a strong extension framework. It has an extension manager which allows you to browse and install numerous extensions depending on your needs. To locate the extension manager, simply go to the File menu or click the icon in the upper right corner of the main interface.

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Brackets is a solid editor which has everything you need when you work with files and directories as well as creating new files. Its code completion features let you quickly assemble apps without even knowing the exact syntax. And should you need assistance code syntax and code options, the Quick Edit option will provide help along the way.

Overall, Brackets is a great tool that is a pleasure to code in. Its open-source capabilities and feature-rich design is a great help for various developers out there. The app also comes with a user-friendly interface and various extension options to cater to your needs. The only real downside of using the app is that its installation can take ages and may likely test your patience. However, once you get past that hurdle, you will find that the app is exactly what you are looking for.

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6. Brackets Extensions

Brackets has lots of Free Extensions. These extensions help to reduce the manual effort in your code and fixes multiple issues depending on the functionality of the extension.

The Brackets Extension Manager manages all extensions. It is available under the View Menu and is also available in the Right side pane of the Brackets editor.

1. Emmet

The Emmet is definitely one of the Brackets top extensions which helps to make coding fast. This works in such a way that you have to simply type some abbreviations and this abbreviation will expand to create tags. This can drastically increase the speed of HTML and CSS coding.

Emmet can automatically use the abbreviations and parse them at run time dynamically to provide the output code. These abbreviations create the structure of code with tags and elements.

It will also work with frameworks like Bootstrap and Foundation.

2. Beautify

The Beautify organizes and formats the HTML, CSS, JavaScript files to make them look good, clean, more readable and properly indented.

This plugin also removes any extra spaces. To use Beautify, it is better to use the shortcuts.

Shortcut Key:

Windows – ctrl + shift + L

Mac – cmd + shift + L

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To Clean(Format) up the code, select the entire file or a part of the file which you want to clean.

Right click and click on "Beautify ".

Another way to use Brackets Beautify extension is by navigating to Edit -> Beautify.

If you want to clean up the file during save, there is an option "Beautify on Save ".

3. Brackets Git

Before installing the Brackets Git extension, you have to first install GIT on your PC/Computer.

GIT is a very popular Version control system(VCS) to collaborate and manage your projects.

Once integration is done, you can set the path of your GIT executable file. This allows you to commit your code changes to GIT from Brackets itself.

You can also perform other useful operations such as Push or Pull the changes. It has other options as well such as view file history, total commit history etc.

4.HTML skeleton

Using the HTML skeleton extension, it is easy to insert HTML elements into your document.

It is a quick way of inserting a group of tags and elements. This plugin helps you to quickly create the skeleton of HTML tags like basic/full HTML skeleton, viewport, Image, Internal & External style-sheet etc.

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5. QuickdocsJS

The QuickdocsJS shows quick short documentation for JavaScript functions, summary, syntax and parameters.

You can quickly refer the documents for jQuery, NodeJS and basic ReactJS functions.

6. Brackets Color Picker

The Brackets Color Picker activates color picker for brackets.

When you type 'color' in brackets editor, it displays a color picker and you can select a particular color of your choice.

This color picker is a handy tool to select the color of your choice from a set of colors. With this, you can select Colors in actual color name, RGB values, HEX Codes, etc.

7. Autosave every edit!

Saving the changes continuously is very important if you are making some critical changes. The Autosave every edit! saves your work automatically as soon as you type.

The best thing is that you do not need to press any command or type CTRL + S every time. You have to just set the frequency of time-frame when the changes will be automatically saved.

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7. RESULT (Screenshots)

Landing Page:

Fig 7.1: Landing page of website
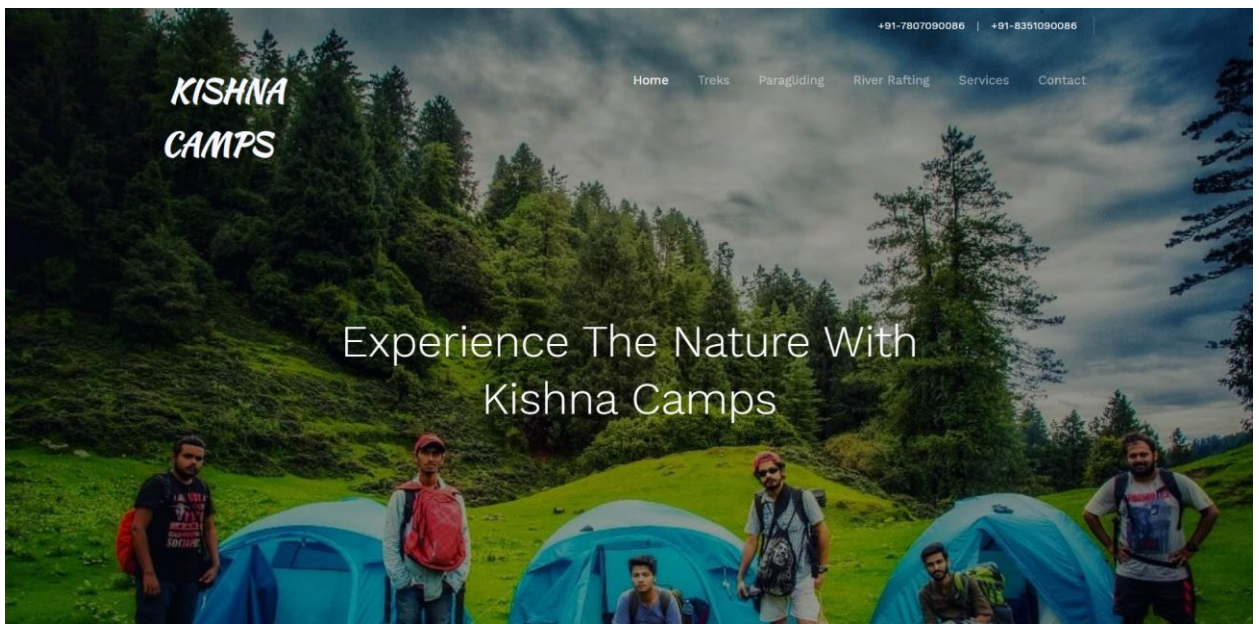
Fig 7.2: Homepage of website(part-1).

SHOWCASE

Our Nationwide Famous Camps & Activities
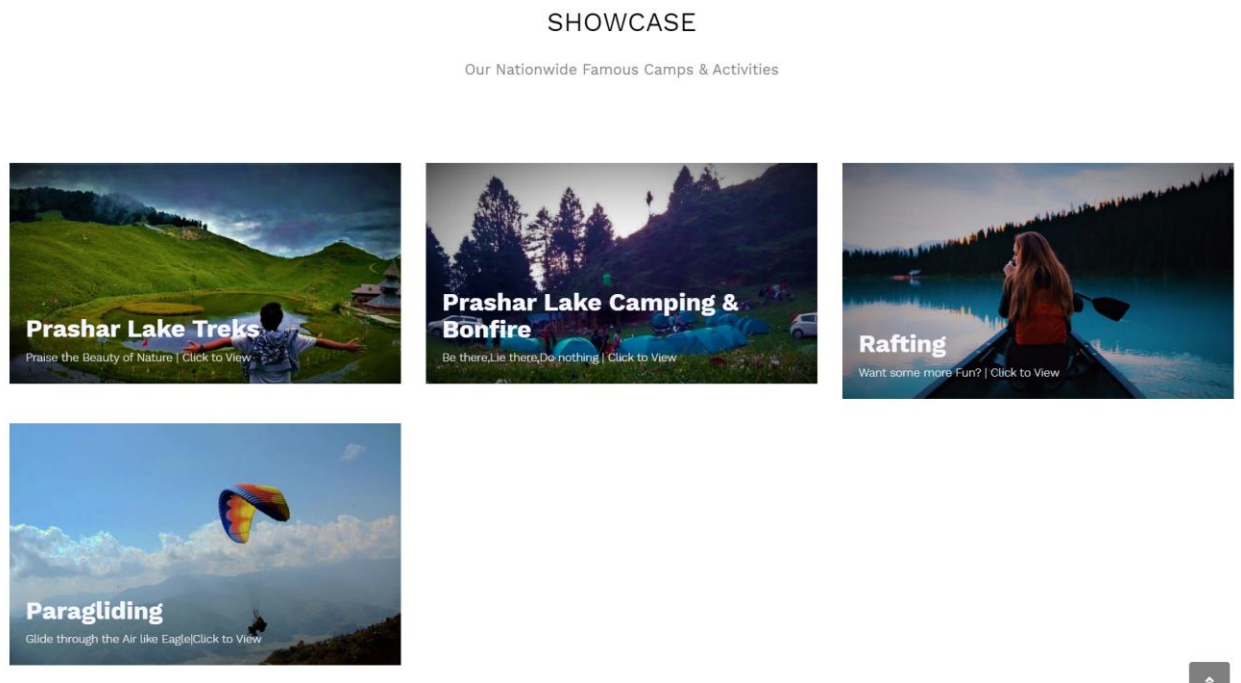
Fig 7.3: Homepage of website(part-2).
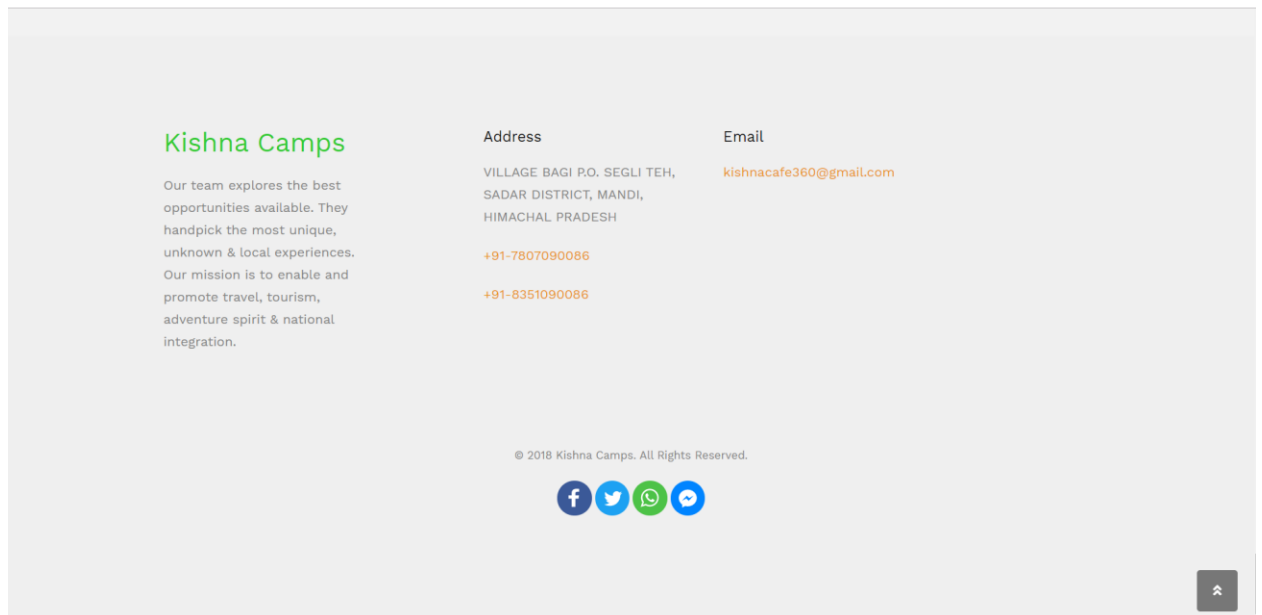
Fig 7.4: Footer on homepage

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Treks Page:

Fig 7.5: Treks Page (part 1)

Fig 7.6: Treks Page (part 2)

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Non-homepage Footer Section:
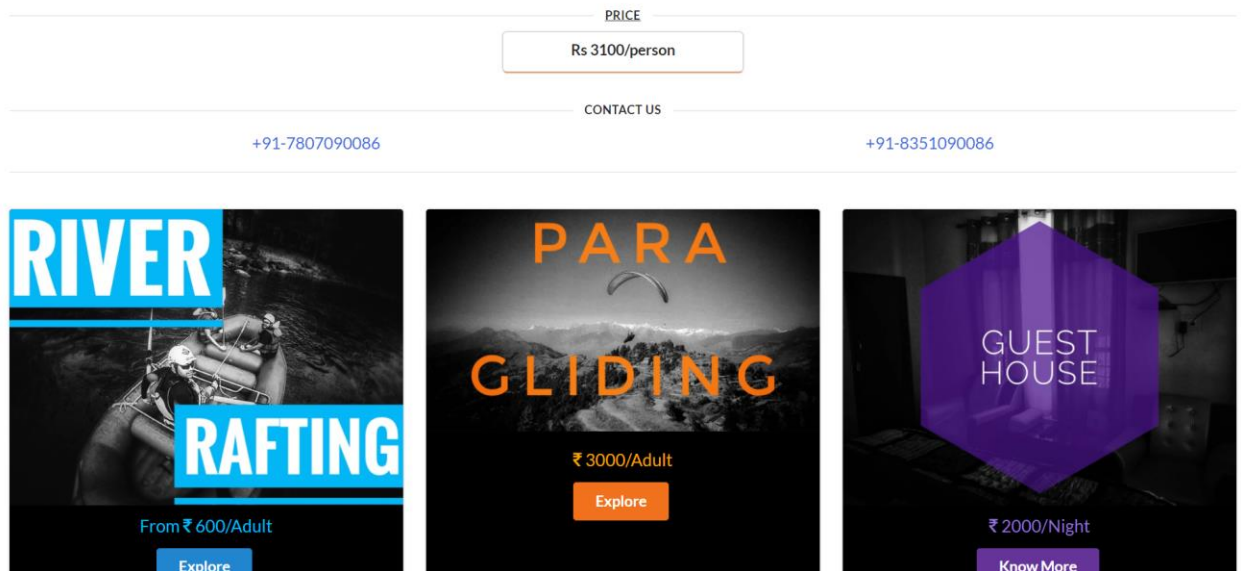
Fig 7.7: Footer Section

Individual Trek Page:
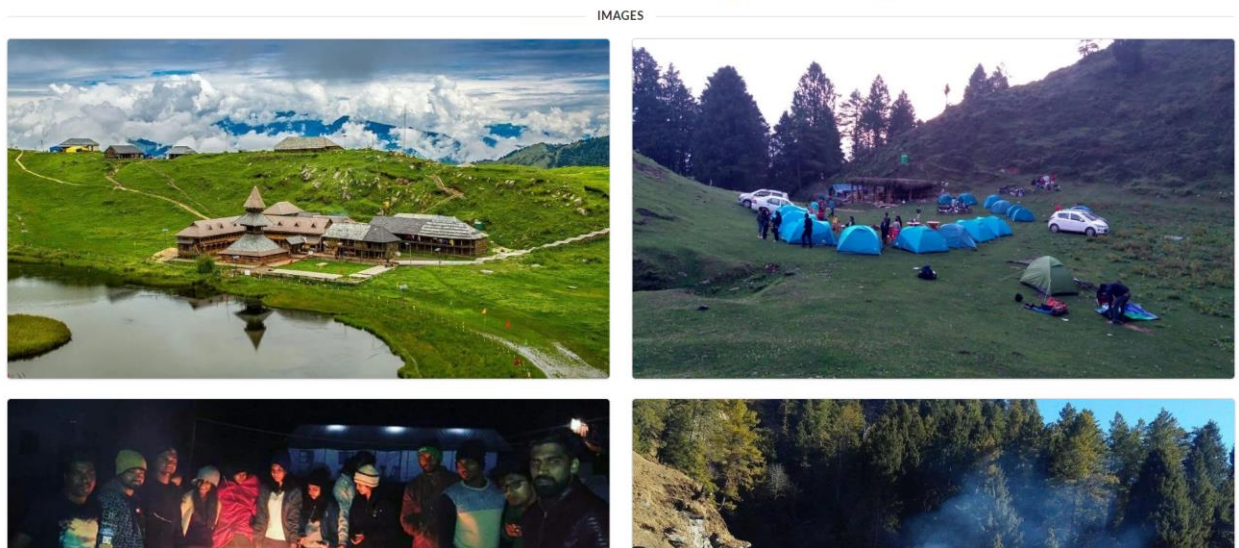
Fig 7.8: Individual Trek Page (Part-1)

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Fig 7.9: Individual Trek Page (Part-2)

River Rafting Page:

Fig 7.10: River Rafting Page (Part-1)

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Note: Timings depend on water flow.

Things To Carry:
- Sunscreen
- Comfortable shoes
- Extra Set of Clothes

PACKAGES(PER PERSON)

Distance	Cost
5 Km	₹600/person
7 Km	₹700/person
9 Km	₹900/person

PACKAGES(COMMON BOAT- 8 PERSONS)

Distance	Cost
5 Km	₹3000/boat
7 Km	₹3500/boat
9 Km	₹4000/boat

CONTACT US

Fig 7.11: River Rafting Page (Part-2)

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Paragliding Page:

Fig 7.12: Paragliding Page

Camping & Bonfire Page:

Fig 7.13: Camping & Bonfire Page

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Guest House Page:

Fig. 7.14: Guest House Page

Add Comments Page:

Fig. 7.15: Add Comments Page

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Testimonial Section:

Testimonial

Prashar Lake is the most
beautiful place I have ever
been to.

I have traveled several places in the world,
and there might be more beautiful places
out there, but none that I have seen. I totally
loved & enjoyed it!

- MR SUMIT PRATAP

TRAVELED FROM NEW DELHI TO PRASHAR LAKE

Fig. 7.16: Testimonial Section

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- Wikipedia
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GitHub Repo: https://github.com/Ayushtwentysix/Travel-Camps-Activities-Website

Live Website: https://parasharlakekishnacamp.com/