Yellowstone

WEB DEVELOPMENT PROCESS BOOK

RHEA AGARWAL | WINTER 24 | PASSION PROJECT

About

This is a product design project for the Yellowstone website. It's not just a design endeavor; I've personally coded every aspect of it using HTML, CSS, and JavaScript. Through this project, I wanted to showcase my skills in front-end development, focusing on user interactivity and engagement. From interactive maps to dynamic photo galleries, I've put my heart and soul into creating a seamless and captivating experience for visitors.

Objective

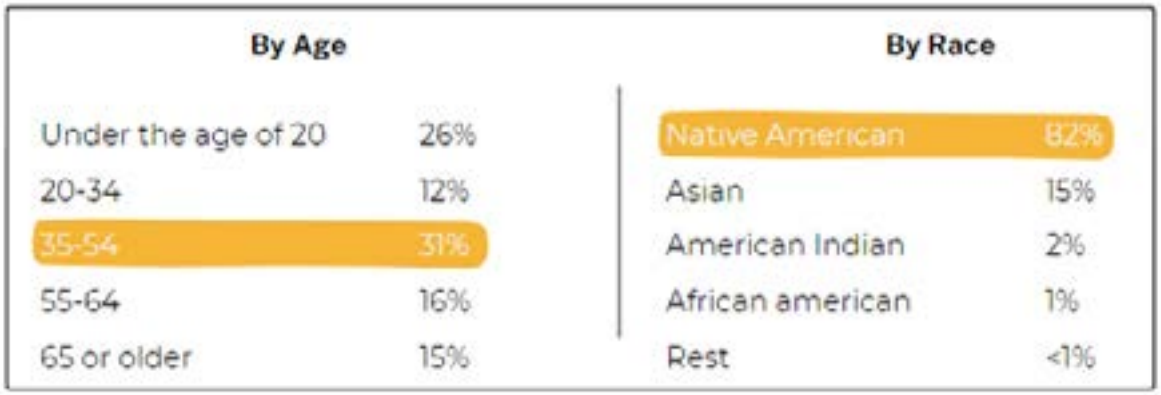
The problem is the outdated and inefficient website for a national park, which hinders the park's ability to effectively communicate information to visitors and manage park resources. This can result in negative visitor experiences, decreased park attendance, and reduced revenue for the park and surrounding communities. The end goal is to create create a responsive website design including HTML pages using semantic markup, styles, and implementation of necessary JavaScript. Promote a user-friendly site that is easy to navigate and increases the traffic on the national park's website.

The story

I have been really fascinated with animals and wildlife photography since my childhood, especially since I used to live in the middle of a forest in my home country. The area I used to live in was surrounded by nature and all kinds of animals, sometimes bears, leopards and crocodiles too. This is why this project is really close to my heart, I love an ecosystem where animals and humans can coexist peacefully. I have been to almost every national park in my home country and wanted to visit parks in the USA too. Yellowstone is the world's first national park has always intrigued me to visit it. I would like to promote the rich heritage and history it carries with it to spread awareness about the love for nature among people today.

Target audience

Statistics of Yellow stone visitors



By Age	
Under the age of 20	26%
20-34	12%
35-54	31%
55-64	16%
65 or older	15%

By Race	
Native American	82%
Asian	15%
American Indian	2%
African american	1%
Rest	<1%

The target audience for the national park website would include a wide range of groups:

01. Nature enthusiasts and outdoor enthusiasts who are interested in visiting the park for activities such as hiking, camping, and wildlife viewing
02. History buffs who are interested in learning about the park's historical and cultural significance
03. Families and individuals planning a vacation or day trip to the park
04.Researchers and scientists studying the park's ecology and geology
05.Educators and school groups planning field trips to the park
06.Media and journalists covering the park and its events.
07. Photographers who are interested in capturing wildlife and beauty of the place.

Factual Research

Yellowstone was the world's first national park, established in 1872.

The park is home to the world's largest collection of geysers, including Old Faithful, which erupts every 35-120 minutes.

The park is also home to the largest supervolcano in North America, which has the potential to erupt with a force thousands of times more powerful than a typical volcano.

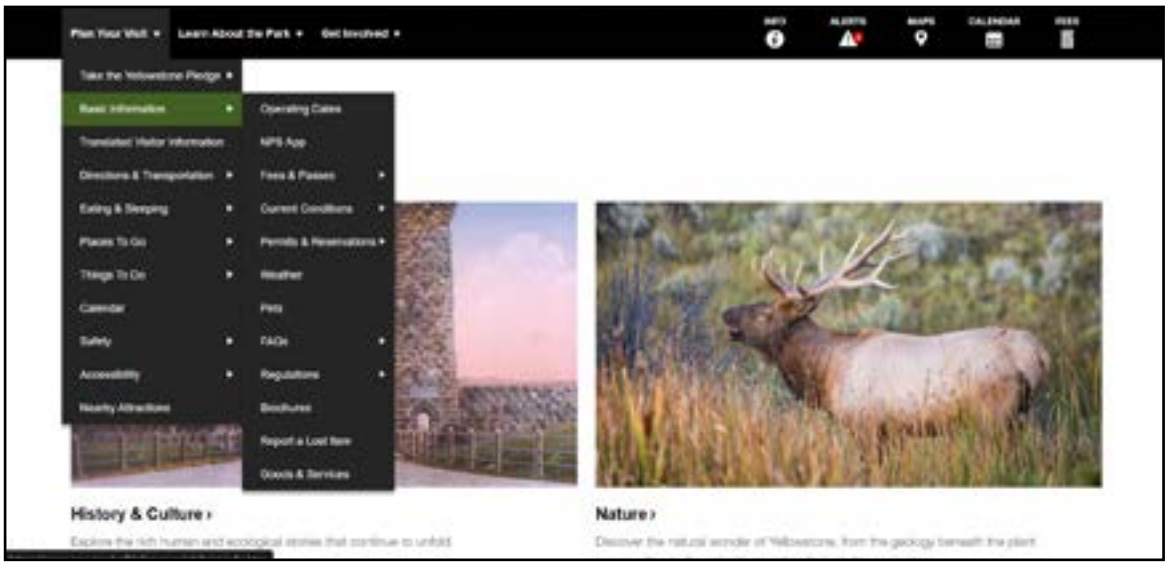
The park is home to a diverse range of wildlife, including grizzly bears, wolves, bison, elk, and bighorn sheep.

The park's hot springs and geysers are heated by a magma chamber located several miles below the surface.

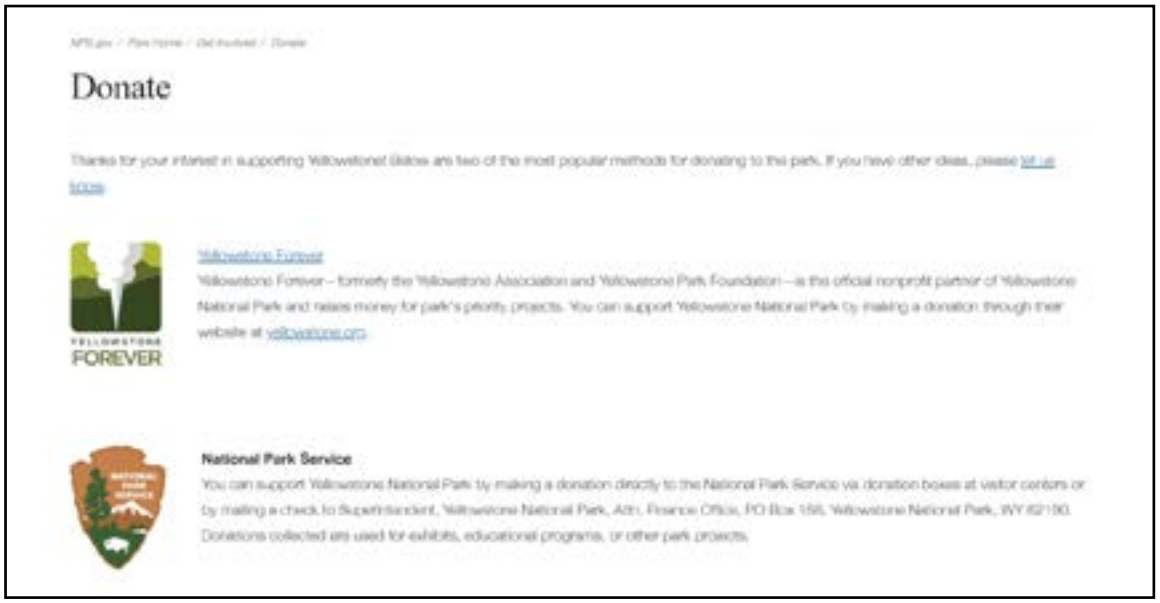
The park is so wide that it is located in three states, Wyoming, Montana and Idaho. The park has a total of 300 geysers, which is more than anywhere else in the world.

The park's Grand Prismatic Spring is the largest hot spring in the United States and the third largest in the world.

Existing site



Existing site



Problems

The current Yellowstone National Park website, managed by the National Park Service (NPS), faces several key challenges:

1. Outdated Design: The site's design is outdated and doesn't meet modern web standards, making it difficult for users to navigate efficiently.
2. Limited Accessibility: Accessibility features are lacking, making it challenging for users with disabilities to access content.
3. Poor User Experience: Complex menus, cluttered pages, and slow loading times contribute to a frustrating user experience.
4. Inconsistent Information Architecture: Content organization is inconsistent, making it hard for visitors to find specific information quickly.
5. Limited Multimedia Integration: The site struggles to effectively incorporate multimedia content, hindering its ability to showcase the park's beauty and experiences.
6. Lack of Community Engagement: Opportunities for visitor interaction and community engagement are limited, missing out on fostering a sense of belonging and stewardship.
7. Inadequate Mobile Optimization: The site isn't fully optimized for mobile devices, leading to a subpar experience for users accessing it on smartphones and tablets.

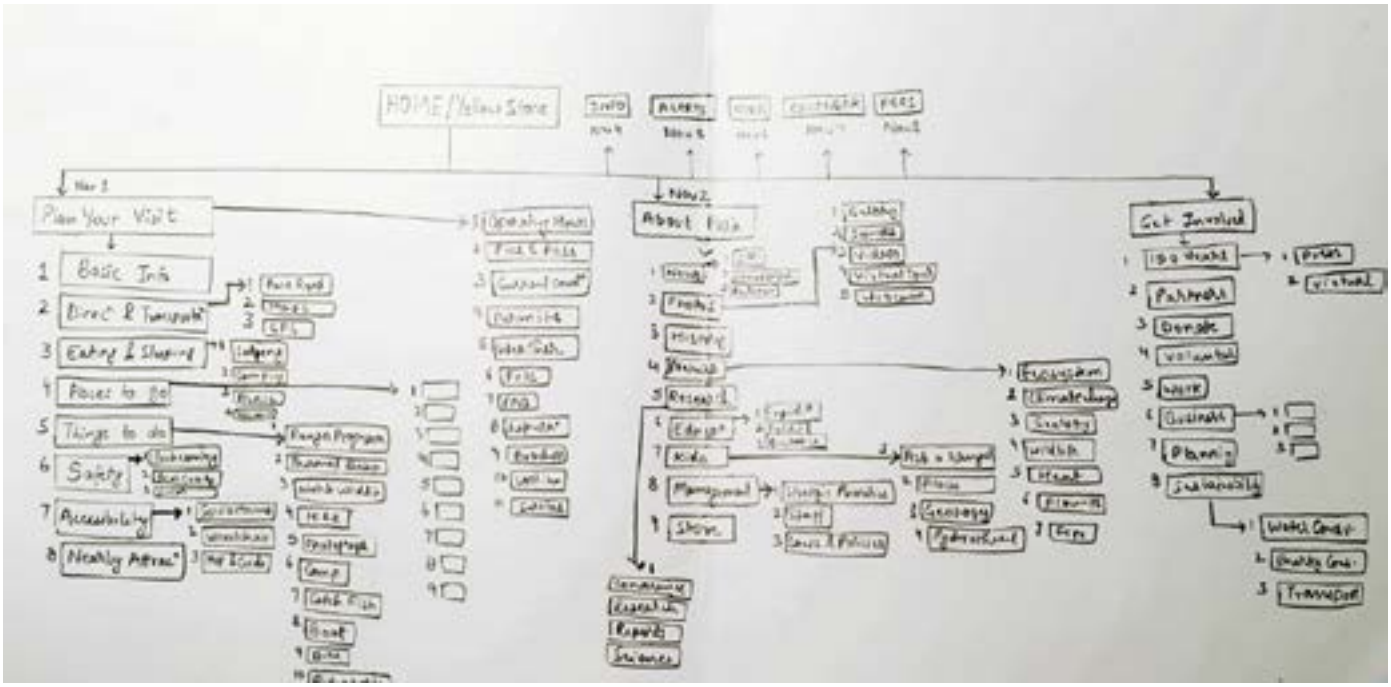
Sec. Research

TOP 10 VISITED NATIONAL PARKS BY NPS DATA

Order	Park	Recreational Visits
1	Blue Ridge Parkway	15.9 million
2	Great Smoky Mountains National Park	14.1 million
3	Golden Gate National Recreation Area	13.7 million
4	Gateway National Recreation Area	9.1 million
5	Lake Mead National Recreation Area	7.6 million
6	George Washington Memorial Parkway	6.8 million
7	Natchez Trace Parkway	6.4 million
8	Lincoln Memorial	5.8 million
9	Gulf Islands National Seashore	5.5 million
10	Zion National Park	5 million

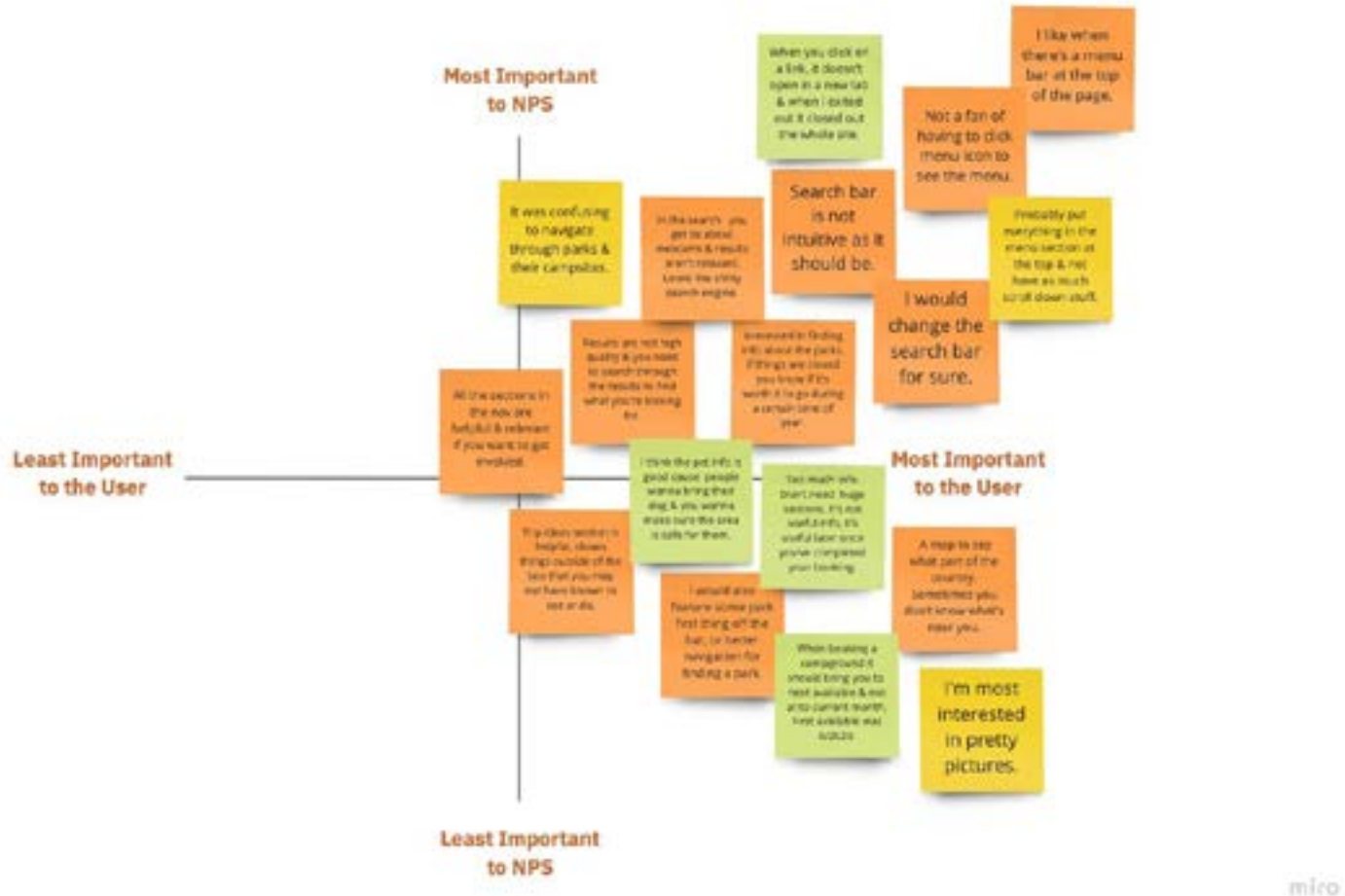
Yellowstone National Park is a national park in the United States, located primarily in the state of Wyoming and extending into Montana and Idaho. It is known for its geysers, hot springs, and other geothermal features, as well as its wildlife, including bison, elk, and grizzly bears.Yellowstone National Park, established in 1872, holds the distinction of being the world's first national park. Despite its historical significance and global renown, Yellowstone faced a surprising lag in embracing digital technology, including the absence of its own dedicated website for a considerable period.

Current site map



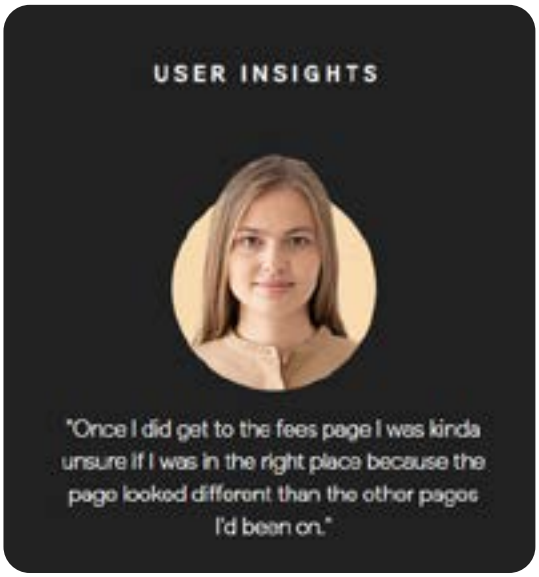
The current site map of Yellowstone National Park's website presents challenges including complex navigation, information overload, and inconsistencies in organization. These issues can hinder visitors' ability to find relevant information efficiently and may lead to frustration. Improving the site map's clarity, prioritization, and accessibility can enhance the user experience and facilitate easier navigation for all visitors.

Priority Matrix



There were alot of issues i found while navigating the website, i made a list of all of them and then sorted them according to importance to user and NPS in a priority matrix to determine the area for improvement opportunities.

User Insights



The solution

A standalone website to provide visitors with a more immersive and engaging experience that reflects the park's unique identity and offerings.

KEY SECTIONS

- Park info- Fees, alerts, maps, calendar, store, photos, news
- Location and Transportation
- Places to go
- Things to do
- Safety + accessibility
- Involve- work, volunteer, donate, planning, business
- Research education

User Experience

FEATURES:

- TARGET FOCUSED CONTENT
- BUILDING LOGO/IDENTITY
- USER EXPERIENCE
- PROMOTING THE RICH CULTURE AND VISIT WORTHY FACTS ABOUT THE PLACE
- CONTENT GROUPING TO MINIMIZE JUMPS

UI APPEARANCE:

- EASY NAVIGATION
- HIERARCHY
- MODERN GRAPHIC ELEMENTS
- HIGH RES, UP TO DATE PHOTOS
- LAYOUT

New site map


HOME PAGE | YELLOW STONE
(INTRO, BROCHURE, BOOK)
8 REGULATIONS
2 GALLERY
1 NEWS
Nav 1
Nav 2
Nav 3
Nav 4
Nav 5
ABOUT
3 HISTORY
4 NATURE
6 SAFETY
9 STORE
PLAN YOUR VISIT
1 OPERATING HOURS
5 WEATHER
3 CURRENT CONDTn
7 ACCESIBILITY
6 PETS
2 DIRECTn &TRANSPORT
11 SERVICES
7 FAQs
LEARN
1 150 YEARS
5 RESEARCH
6 EDUCATION
7 KIDS
8 MANAGEMENT
7 PLANNING
8 SUSTAINABILITY
GET INVOLVED
2 PARTNERS
3 DONATE
4 VOLUNTEER
5 WORK
6 BUSINESS
ADVENTURE
4 PLACES TO GO
5 THINGS TO DO
3 EAT AND SLEEP
9 NEARBY ATTRACn
FOOTER | CONTACT US, SOCIAL MEDIA

Layouting

Typography and font choices play a pivotal role in shaping the user experience of digital content. Picking a web-friendly font is a crucial step in making sure search engines like Google can efficiently scan and index your website. If you skip this consideration, you might end up with fewer people discovering your website's content naturally.

Branding

For the color scheme, I have taken inspiration from nature and picked up the earthy colors which best represent the essence of the yellow stone national park.

Welcoming

Empathetic

Trustworthy

Typography

YELLOW STONE

NATIONAL PARK

FONT: Franklin Gothic Demi Condensed

1 YELLOWSTONE
National Park

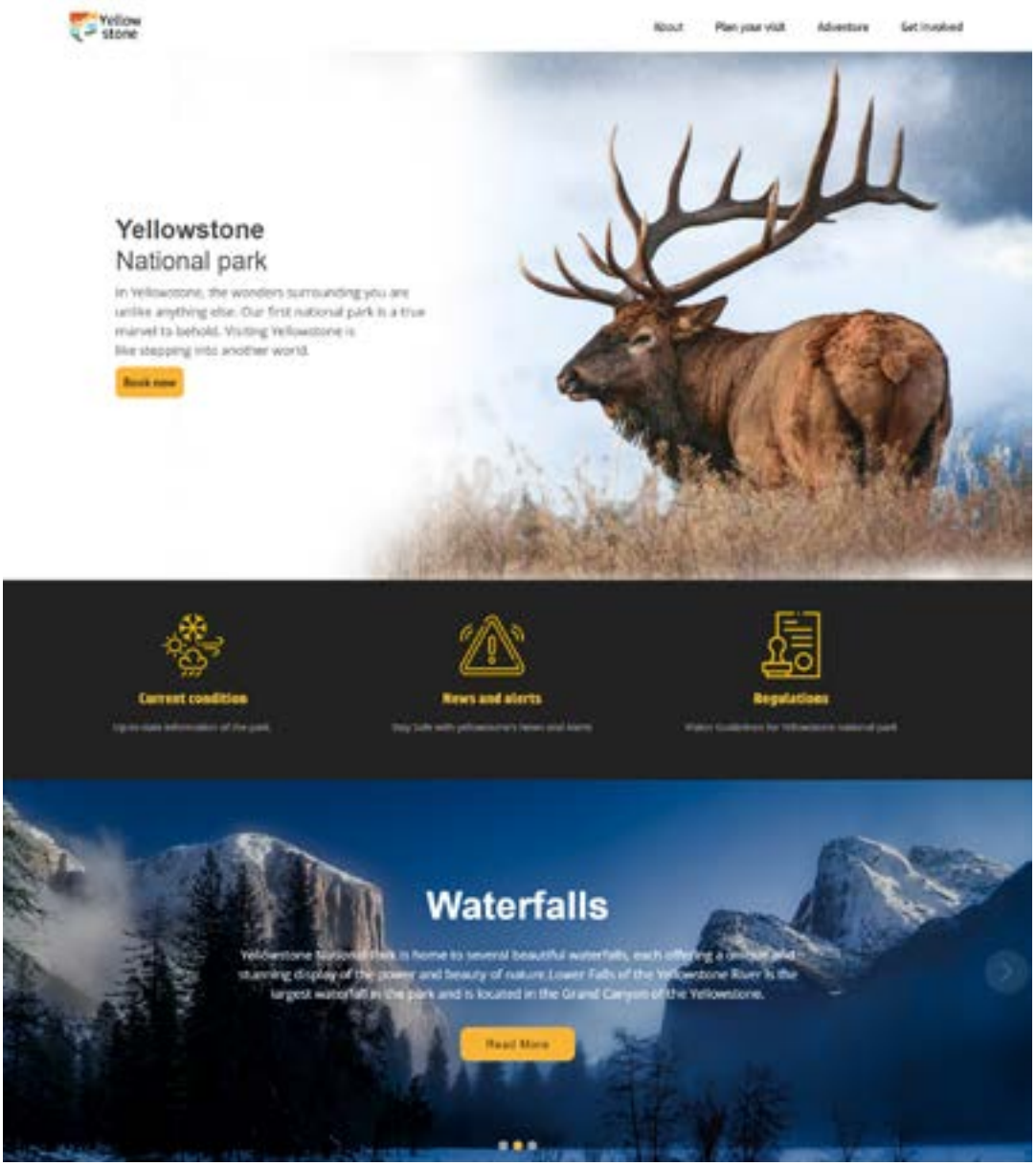
2 YELLOWSTONE
NATIONAL PARK

3 YELLOWSTONE
National Park

4 YELLOWSTONE
National Park

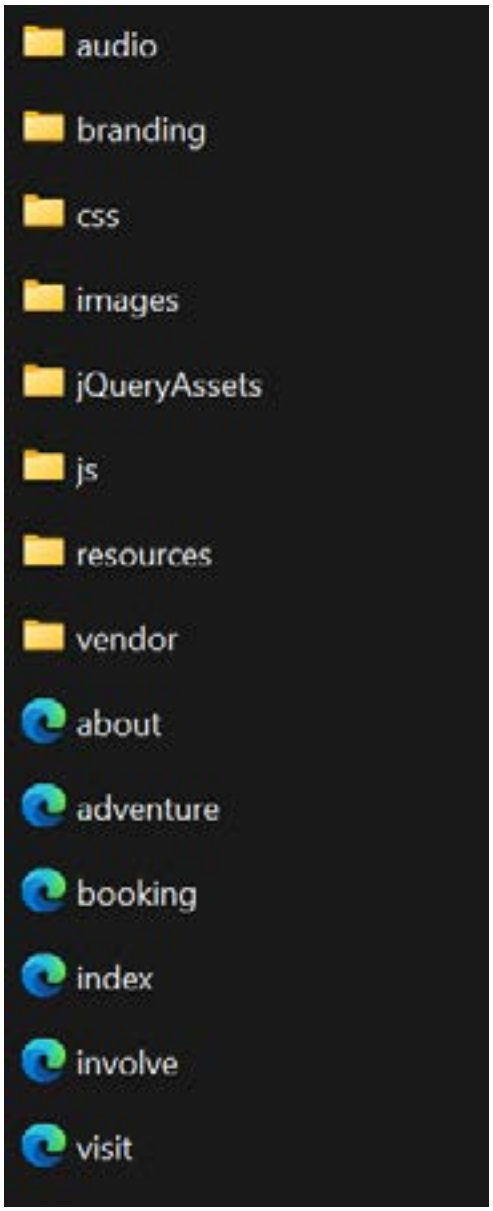
5 YELLOWSTONE
NATIONAL PARK

Initial design



Code

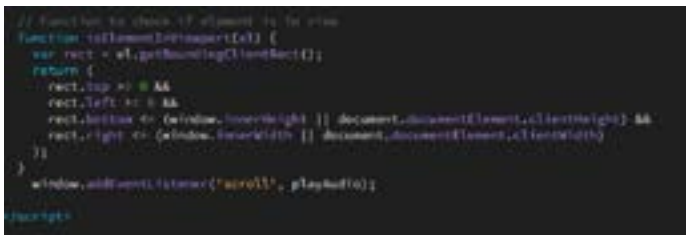
Folder Structure



01. HTML

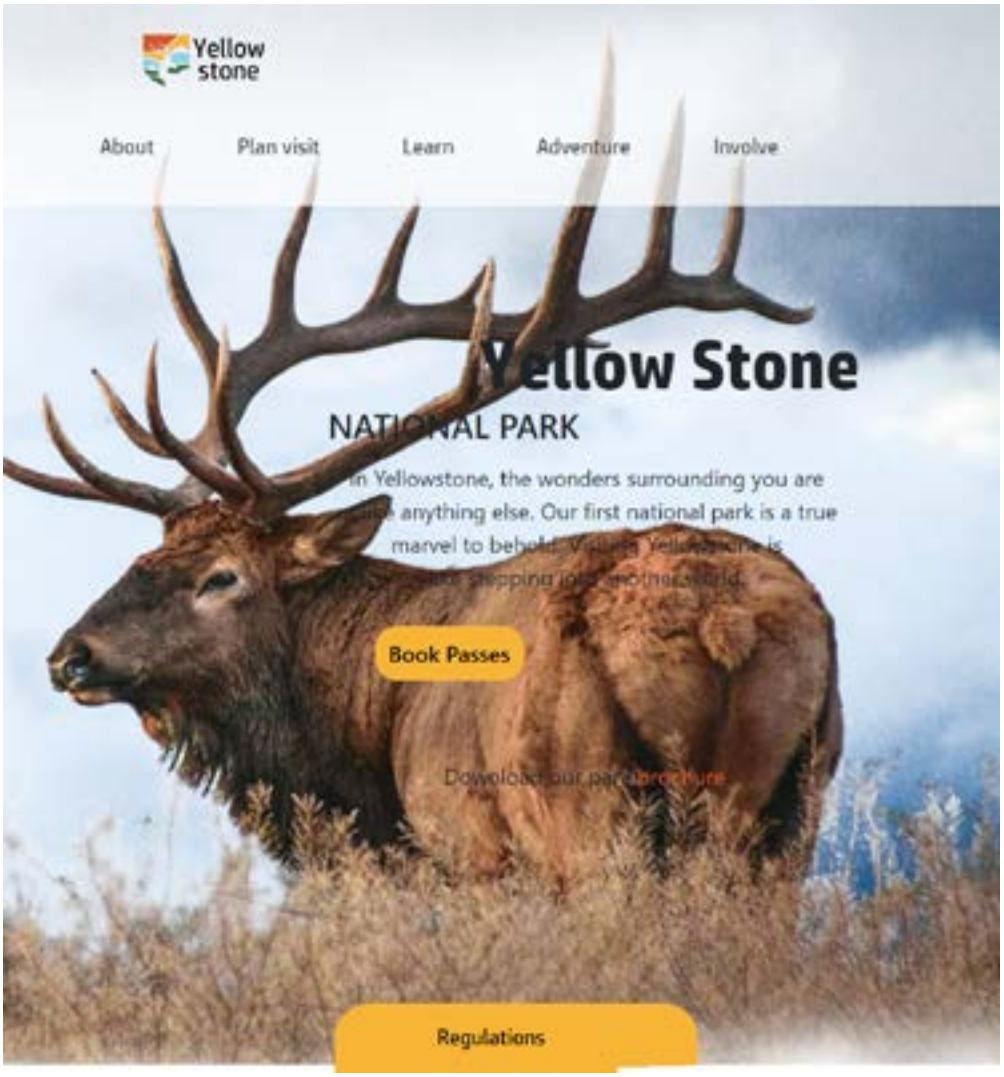
02. CSS

02. JS

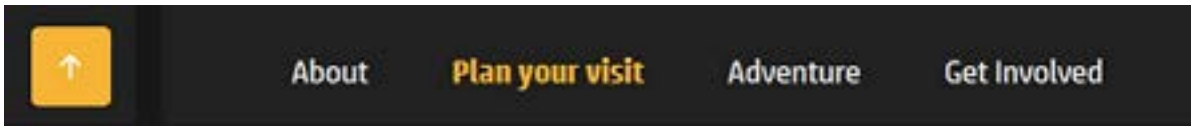


Challenges

Making the website work well on all kinds of devices was really tough. I had to check it a lot to make sure it looked good and worked right on phones, tablets, and computers.



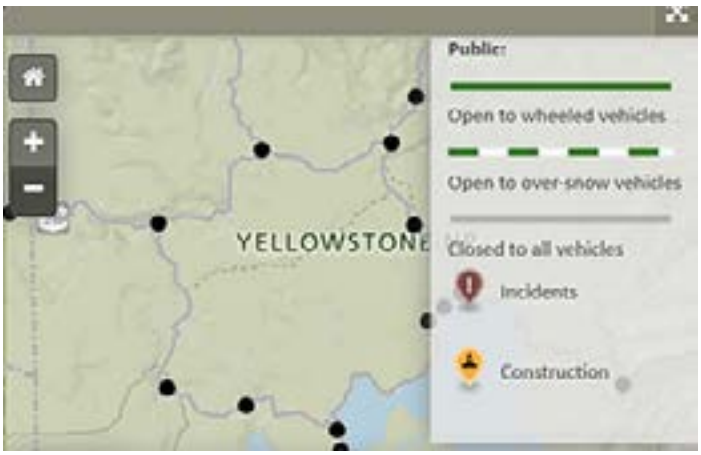
Features



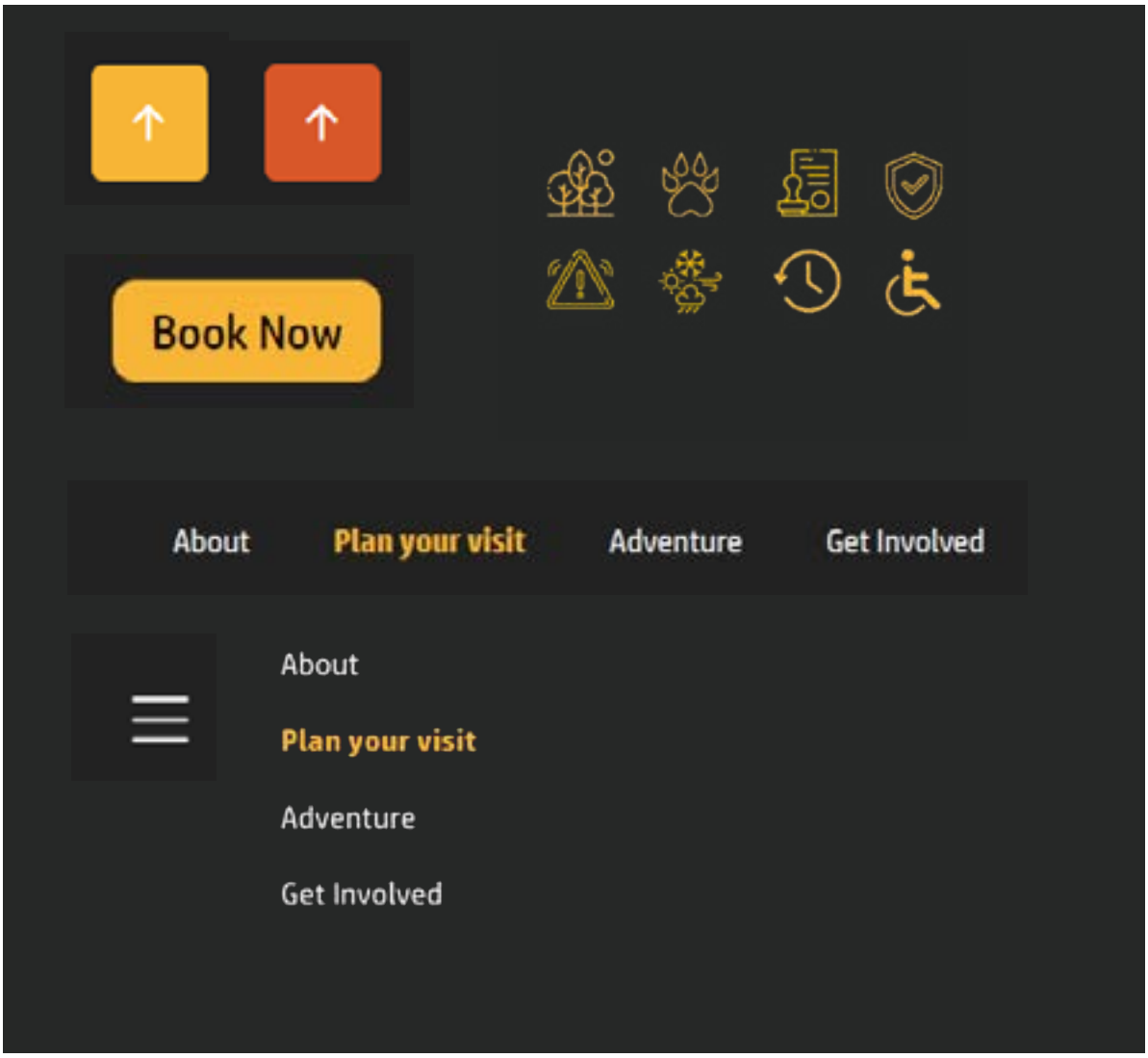
With simple navigation. And with the handy "Back to Top" button, you can quickly jump back to the start of the page whenever you need to.

Based on my primary research findings, I've redesigned our website to prioritize essential information. The booking option is now front and center, followed by critical updates like alerts, conditions, and regulations

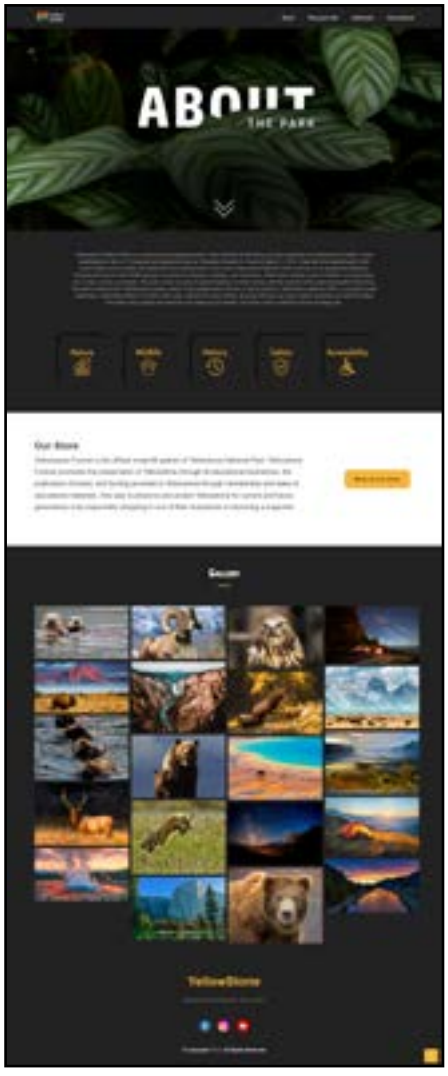
Interactive map feature that not only showcases popular spots within the park but also provides real-time alerts such as road closures and stops.



UI kit


Book Now
About
Plan your visit
Adventure
Get Involved
About
Plan your visit
Adventure
Get Involved

Final design



Website view

Mobile view

Changes

While doing the user testing with my class i had recieved some valuable inputs to better the user experience, some of which i implemented:

The picture gallery i had in the starting made users to actually click navigation arrows to go on to the next one which most of the users wont really put in efforts for and miss out on the CTAs. Hence i worked on the javascript part to add automic slider which slides the image after an interval.

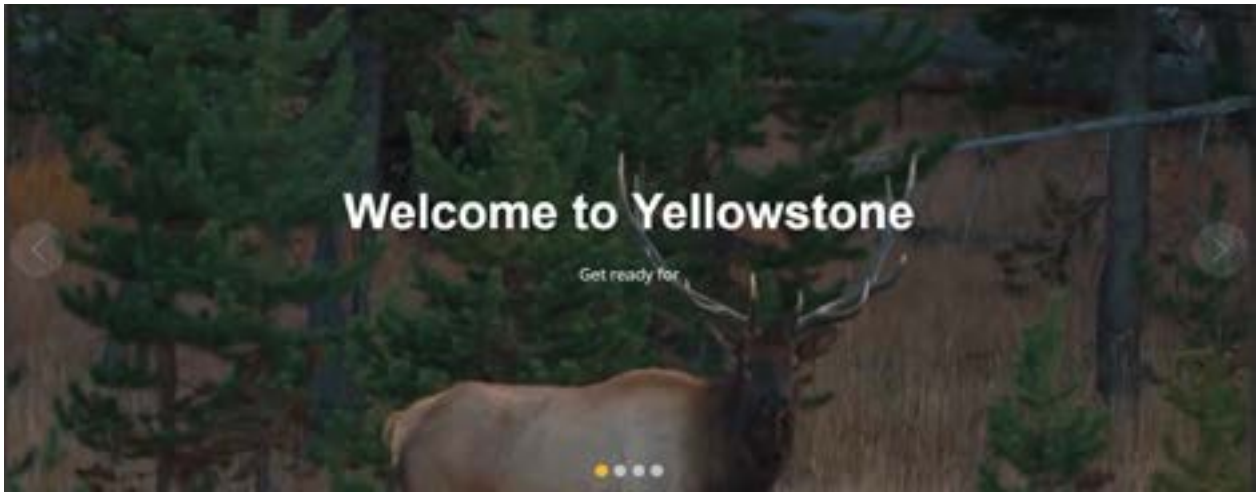
One valuable suggestion I received was to incorporate the current weather conditions of Yellowstone directly into our platform. This eliminates the need for visitors to take an extra step and search for this information on external platforms like Google before planning their trips.

The icon set on the website appeared inconsistent initially, but I've streamlined and standardized them to ensure uniformity and enhance user comprehension.

Automatic slider

```
// Function to check if element is in view
function isElementInViewport(el) {
  var rect = el.getBoundingClientRect();
  return (
    rect.top >= 0 &&
    rect.left >= 0 &&
    rect.bottom <= (window.innerHeight || document.documentElement.clientHeight) &&
    rect.right <= (window.innerWidth || document.documentElement.clientWidth)
  );
}
  window.addEventListener('scroll', playAudio);

/script>
```



Api calling

i have used openweathermap as my source of current weather and called it on my website using Api.

```
<script>
const weatherContainer = document.querySelector('#weather');
async function getWeatherConditions() {
const response = await fetch('https://api.openweathermap.org/data/2.5/weather?
q=Idaho,us&appid=1690d6c3807a88ce0b5beecaaef8f84c');
const data = await response.json();
const temperature = data.main.temp;
const description = data.weather[0].description;
const celcius= parseFloat(temperature-273.15).toFixed(2);
weatherContainer.innerHTML = `
  <center> <p>The current temperature is <span style=" background-color: #2f2f2f;
box-shadow: 2px 2px 5px rgba(0, 0, 0, 0.9); padding:5px; border-radius:5px">
 ${celcius}°C<span> </p>
    <p>The weather is currently <span style=" background-color: #2f2f2f;
box-shadow: 2px 2px 5px rgba(0, 0, 0, 0.9); padding:5px; border-radius:5px">${description}</span></p></center>
    `;
}

getWeatherConditions();
</script>
```

Consistency

THE
END