FULL STACK PROJECT REPORT FILE

(2020-2021)

On

SAARTHI

Submitted by

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Acknowledgement

When I am writing this project, my mood was good because of the topic title I choose, make me interested with what I am writing in this project and research I conducting up to the time If in this project, in the point that now a days the world demand mostly on e-commerce activities in conducting business and online transaction growth everyday as now we are in science and technology century.

I would like to express my special thanks of gratitude to my instructor Mr. Pankaj Kapoor for the support and help he gave me towards the completion of this project, most of time their videos corrected me where I was wrong, guide me where necessary, it's so helpful for me and good to working with him.

I wish to thank my all teammates for their great contribution daily in this project. We meet in the class and outside the class on which area is important in project, how to write it and also helping each other towards the completion of this project is so helpful because sometime we forget necessary research on this project.

I wish to thank my family and outside friends for the encouragement and motivation towards the completion of this project, is so helpful, first my family for financial matter, and outside friends for supporting each other day until now I am writing my final year project.

Lastly, I am really thankful for all I mention above and others who helped me a lot in finishing this project within the limited time.

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Abstract

Natural calamities are not the new events they are since the beginning of earth and almost every civilization has faced it. In ancient times people believes that it was due to god's anger but in today's world technology is so advanced we know the actual reason behind these calamities the only thing we must know is how to save ourselves from these calamities and our project 'SAATHI' a website which will help others to take necessary steps while dealing with these events.

Table of Contents

Introduction

Introduction of the project:

A Natural disaster is an unforeseen occurrence of an event that causes harm to society. There are many_natural disasters that damage the environment and the people living in it. Some of them are_earthquakes, cyclones, floods,_tsunami landslides, volcanic eruption, and avalanches. The destructive potential of any natural hazard is estimated basically by its spatial extent and severity. Spatial extent up to which the effect of a disastrous event could be felt may easily be classified into small, medium and large scales. The phenomenon extending from a few kilometres to a few tens of kilometres are termed as small scale.

Growing industrialisation and unjustified exploitation of natural resources have brought our echo system to a verge of non-reversibility and imbalance. This has led to a threat from a set of natural hazards like pollution, global warming and ozone depletion on large or global scale.

They can occur at any place and at any time some of these are predictable while others are not so it is very important for us to stay safe while dealing with these calamities. This website provides details about various factors like how different calamities occurs, what are the necessary steps to be taken while dealing those calamities and lot more. In today's era we are rich in technology we must use it so by taking advantage of this technology we have prepared this website and website

is a best way to share thoughts and ideas because content on it can be accessible by any device.

Problem Statement:

This project is to create a website having detailed information regarding natural calamities. Detailed information includes the best scientific reason for the occurrence of a particular calamity, necessary steps to be taken during these calamities etc. The project should be very easy to use enabling a novice person to use it.

Project Scope:

- The website holds crystal correct information for any calamity that is available on this website.
- Website interface is very simple even a novice user can use it.
- High definition images and designs have been used in this website so user can get good understanding of content.

System Specification

In hardware requirement we require all those components which will provide us the platform for the development of the project. The minimum hardware required for the development of this project is as follows-

- Ram- minimum 128 MB
- Hard disk—minimum 5 GB
- Processor- Pentium 3

These all are the minimum hardware requirement required for our project. We want to make us project to be used in any type of computer therefore we have taken minimum configuration to a large extent. 128 MB ram is used so that we can execute our project in a least possible RAM.5 GB hard disk is used because project takes less space to be executed or stored. Therefore, minimum hard disk is used. Others enhancements are according to the needs.

Software Requirements:

Software's can be defined as programs which run on our computer .it act as petrol in the vehicle. It provides the relationship between the human and a computer. It is very important to run software to function the computer. Various software's are needed in this project for its development.

● Operating system—Windows 7 OR ANY VERSION >6, or any Linux operating system

● Editor Software—Visual Studio

● Testing Software---- google chrome (or any web browser)

Technology Used:

1. Html:

HTML stands for **Hypertext Mark-up Language**. It allows the user to create and structure sections, paragraphs, headings, links, and blockquotes for web pages and applications.HTML was invented by Tim Berners-Lee, a physicist at the CERN research institute in Switzerland. He came up with the idea of an Internet-based hypertext system.

Hypertext means a text that contains references (links) to other texts that viewers can access immediately. He published the first version of HTML in 1991, consisting of 18 HTML tags. Since then, each new version of the HTML language came with new tags and attributes (tag modifiers) to the mark-up.

2. CSS:

Cascading Style Sheets is a style sheet language used for describing the presentation of a document written in a mark-up language such as HTML. CSS is a cornerstone technology of the World Wide Web,

alongside HTML and JavaScript. The saga of CSS starts in 1994. Håkon Wium Lie works at CERN – the cradle of the Web – and the Web is starting to be used as a platform for electronic publishing. One crucial part of a publishing platform is missing, however: There is no way to style documents. For example, there is no way to describe a newspaper-like layout in a Web page. Having worked on personalized newspaper presentations at the MIT Media Laboratory, Håkon saw the need for a style sheet language for the Web.

Style sheets in browsers were not an entirely new idea. The separation of document structure from the document's layout had been a goal of HTML from its inception in 1990. Tim Berners-Lee wrote his NeXT browser/editor in such a way that he could determine the style with a simple style sheet. However, he didn't publish the syntax for the style sheets, considering it a matter for each browser to decide how to best display pages to its users. In 1992, Pei Wei developed a browser called Viola, which had its own style sheet language.

3. JavaScript:

JavaScript, often abbreviated as JS, is a programming language that conforms to the ECMAScript specification. JavaScript is high-level, often just-in-time compiled, and multi-paradigm. It has curly-bracket syntax, dynamic typing, prototype-based object-orientation, and first-class functions. The early to mid-1990s was an important time for the internet. Key players like Netscape and Microsoft were in the midst of

browser wars, with Netscape's Navigator and Microsoft's Internet Explorer going head to head.

In September 1995, a Netscape programmer named Brandan Eich developed a new scripting language in just 10 days. It was originally named Mocha, but quickly became known as LiveScript and, later, JavaScript.

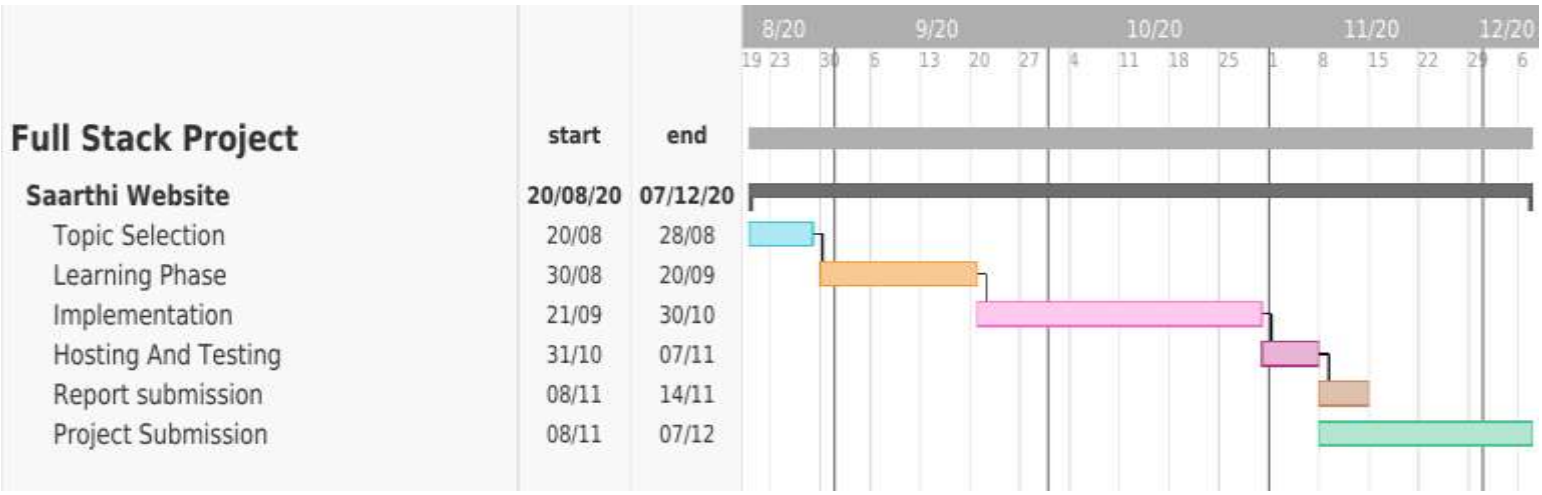
JavaScript is everywhere, and for the seventh year in a row, it has been ranked the most commonly used programming language, with 67.8% of developers employing it in 2019. Its ascent to the world's most popular programming language is synonymous with the rise of the internet itself.

Created out of necessity, it is used to build 95.2% (1.52 billion) of websites today, including some of the world's largest, like Facebook and YouTube. Without it, we would not have popular and useful web apps such as Google Maps and eBay.

So, without further ado, let's take a look at what JavaScript is, how and why it was created, and what's next for the language.

Testing

Gantt Chart



Objective of Testing:

The important objectives of system testing are to make system defect less/perfect so that it works properly in any condition means it satisfy all conditions and work for all input.

System testing: simulates real life scenario that occur in a simulated real-life test environment, and tests all functions

of the system that are required real life System testing is deemed complete when actual results and

expected results are either inline or differences are explainable or acceptable, based on client input.

UNIT TESTING:

Unit testing is a software development process in which the smallest testable parts of an application, called units, are individually and independently scrutinized for proper operation. Unit testing is often automated but it can also be done manually. This testing mode is a component of Extreme Programming (XP), a pragmatic method of software development that takes a meticulous approach to building a product by means of continual testing and revision.

INTEGRATION TESTING:

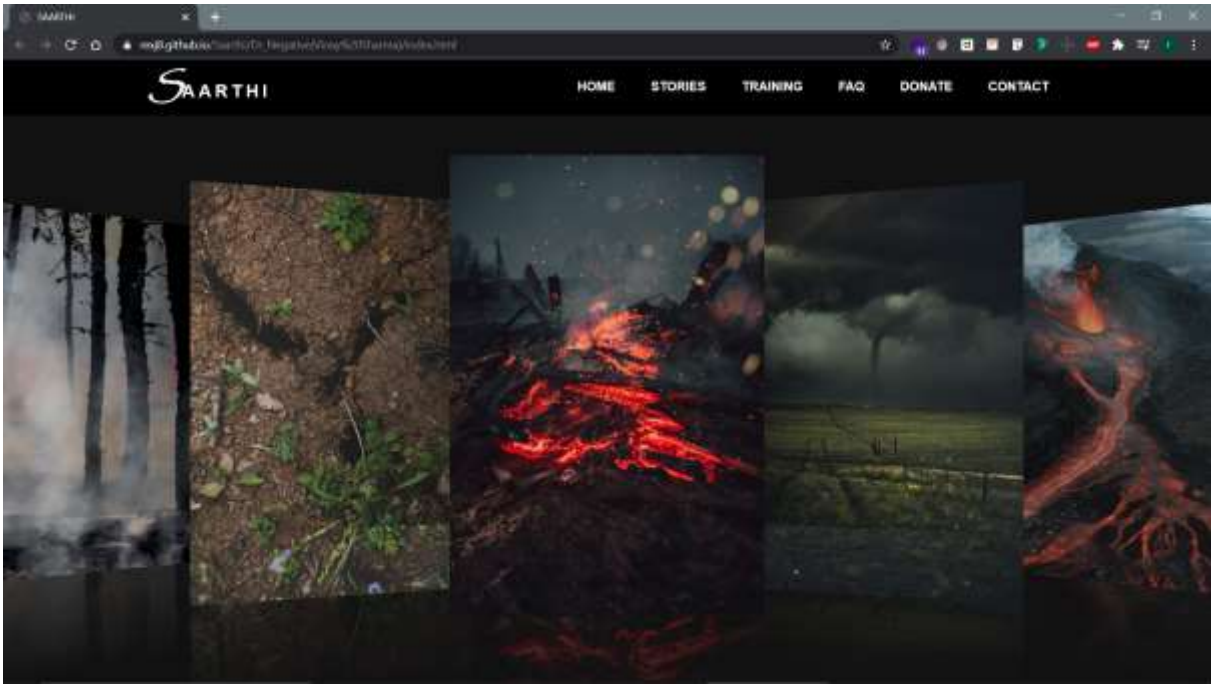
Integration testing is a logical extension of unit testing. In its simplest form, two units that have already been tested are combined into a component and the interface between them is tested. A component, in this sense, refers to an integrated aggregate of more than one unit. In a realistic scenario, many units are combined into components, which are in turn aggregated into even larger parts of the program. The idea is to test combinations of pieces and eventually expand the process to test your modules with those of other groups. Eventually all the modules making up a process are tested together. Beyond that, if the program is composed of more than one process, they should be tested in pairs rather than all at once.

ACCEPTANCE TESTING:

User Acceptance Testing is often the final step before rolling out the application. Usually the end users who will be using the applications test the application before ‘accepting’ the application. This type of testing gives the end users the confidence that the application being delivered to them meets their requirements. This testing also helps nail bugs related to usability of the application.

1. Some Blogs
2. GitHub

Screenshots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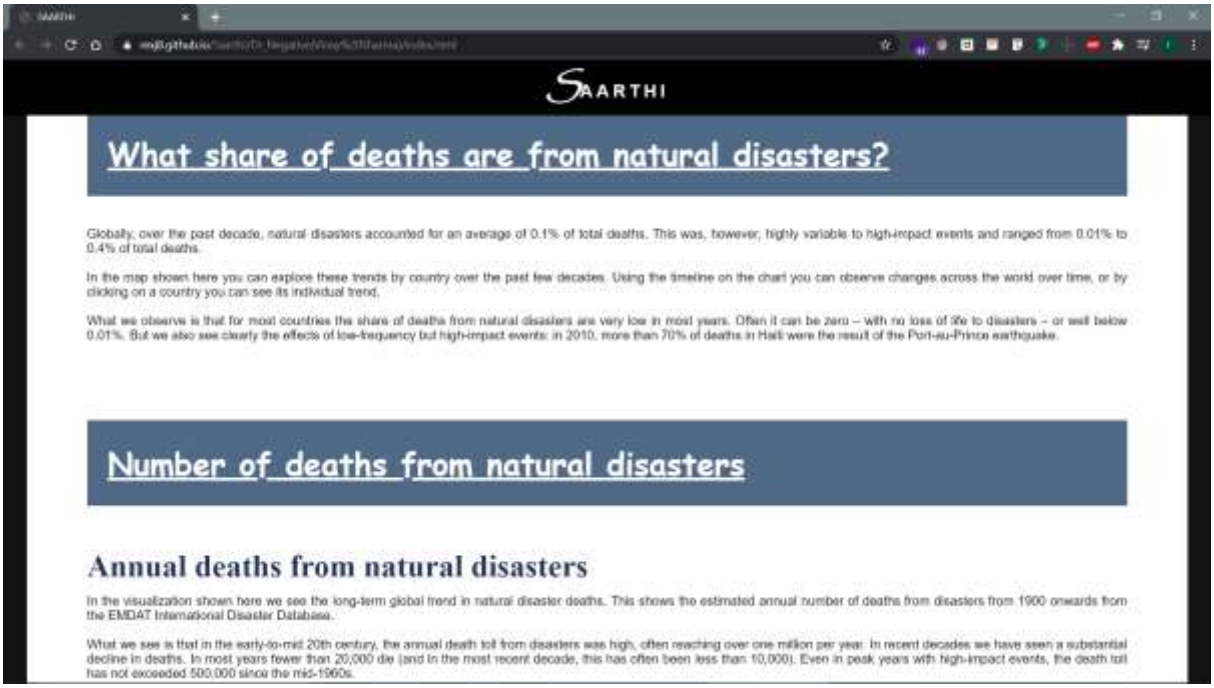
SAARTHI
Natural disasters kill on average 60,000 people per year and are responsible for 0.1% of global deaths
The number of deaths from natural disasters can be highly variable from year-to-year; some years pass with very few deaths before a large disaster event claims many lives.
If we look at the average over the past decade, approximately 60,000 people globally died from natural disasters each year. This represents 0.1% of global deaths.
In the visualizations shown here we see the annual variability in the number and share of deaths from natural disasters in recent decades.
What we see is that in many years, the number of deaths can be very low – often less than 10,000, and accounting for as low as 0.01% of total deaths. But we also see the devastating impact of shock events: the 1983-85 famine and drought in Ethiopia; the 2004 Indian Ocean earthquake and tsunami; Cyclone Nargis which struck Myanmar in 2008; and the 2010 Port-au-Prince earthquake in Haiti. All of these events pushed global disasters deaths over 200,000 – more than 0.4% of deaths in these years.
Low-frequency, high-impact events such as earthquakes and tsunamis are not preventable, but such high losses of human life are. We know from historical data that the world has seen a significant reduction in disaster deaths through earlier prediction, more resilient infrastructure, emergency preparedness, and response systems.
Those at low incomes are often the most vulnerable to disaster events. Improving living standards, infrastructure and response systems in these regions will be key to preventing deaths from natural disasters in the coming decades.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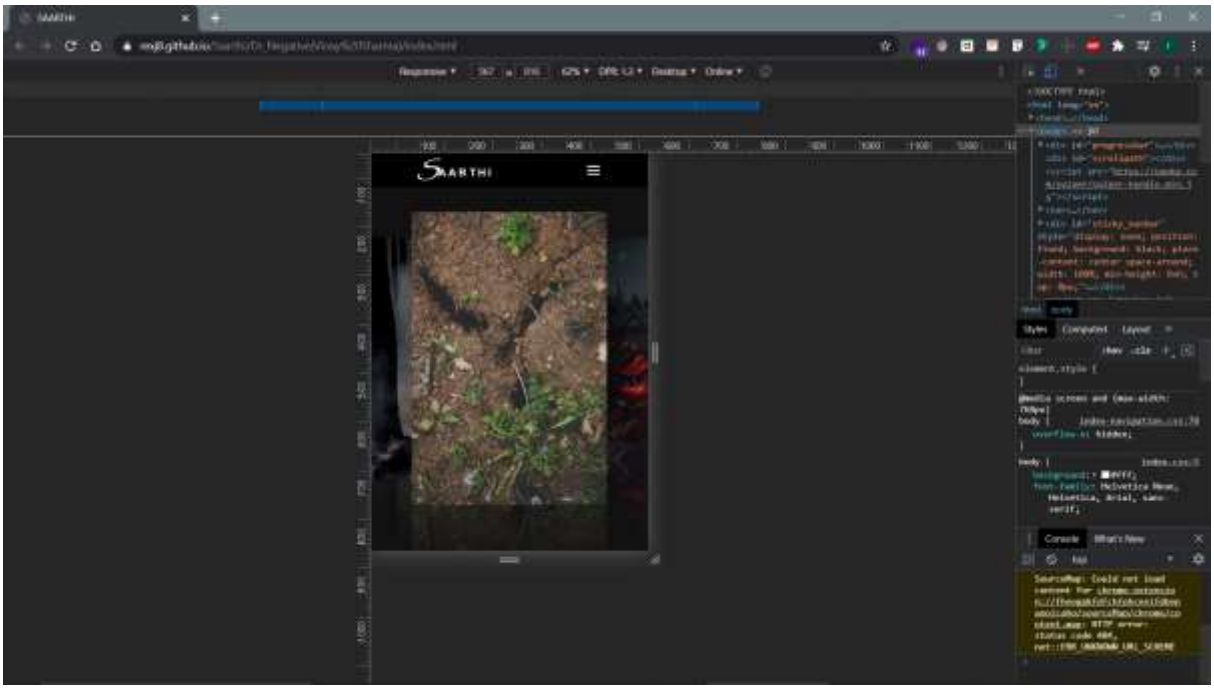
What share of deaths are from natural disasters?
Globally, over the past decade, natural disasters accounted for an average of 0.1% of total deaths. This was, however, highly variable to high-impact events and ranged from 0.01% to 0.4% of total deaths.
In the map shown here you can explore these trends by country over the past few decades. Using the timeline on the chart you can observe changes across the world over time, or by clicking on a country you can see its individual trend.
What we observe is that for most countries the share of deaths from natural disasters are very low in most years. Often it can be zero – with no loss of life to disasters – or well below 0.01%. But we also see clearly the effects of low-frequency but high-impact events: in 2010, more than 70% of deaths in Haiti were the result of the Port-au-Prince earthquake.
Number of deaths from natural disasters
Annual deaths from natural disasters
In the visualization shown here we see the long-term global trend in natural disaster deaths. This shows the estimated annual number of deaths from disasters from 1900 onwards from the EMDAT International Disaster Database.
What we see is that in the early-to-mid 20th century, the annual death toll from disasters was high, often reaching over one million per year. In recent decades we have seen a substantial decline in deaths. In most years fewer than 20,000 die (and in the most recent decade, this has often been less than 10,000). Even in peak years with high-impact events, the death toll has not exceeded 500,000 since the mid-1960s.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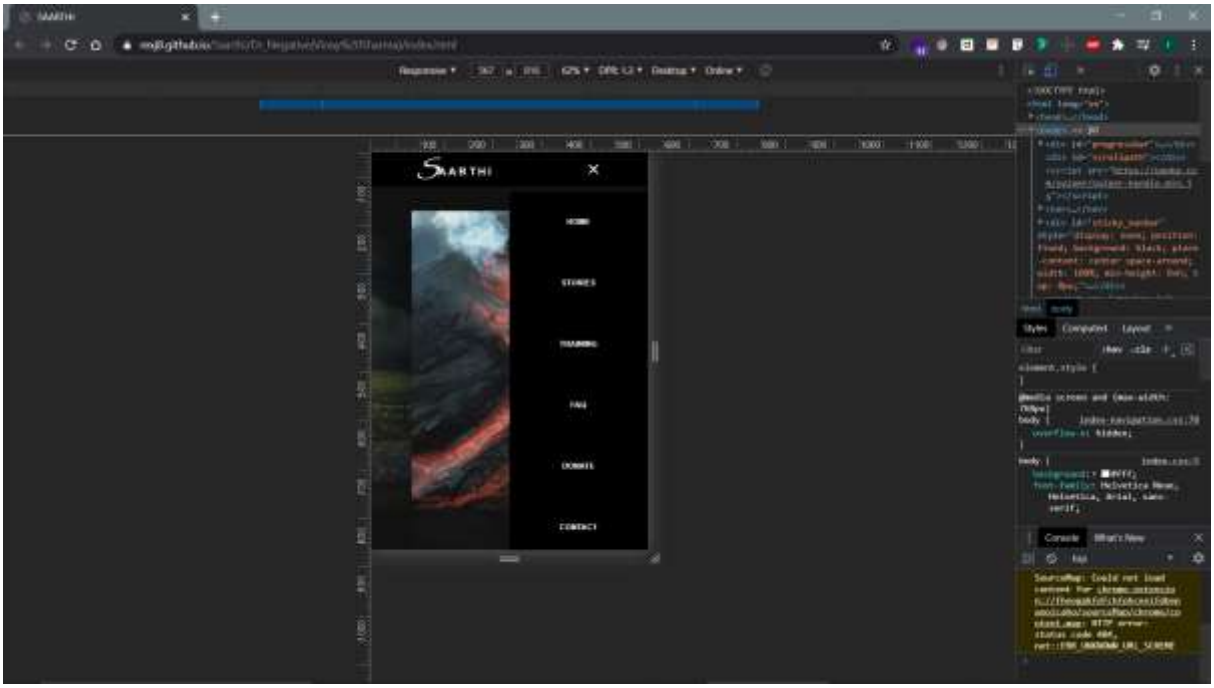
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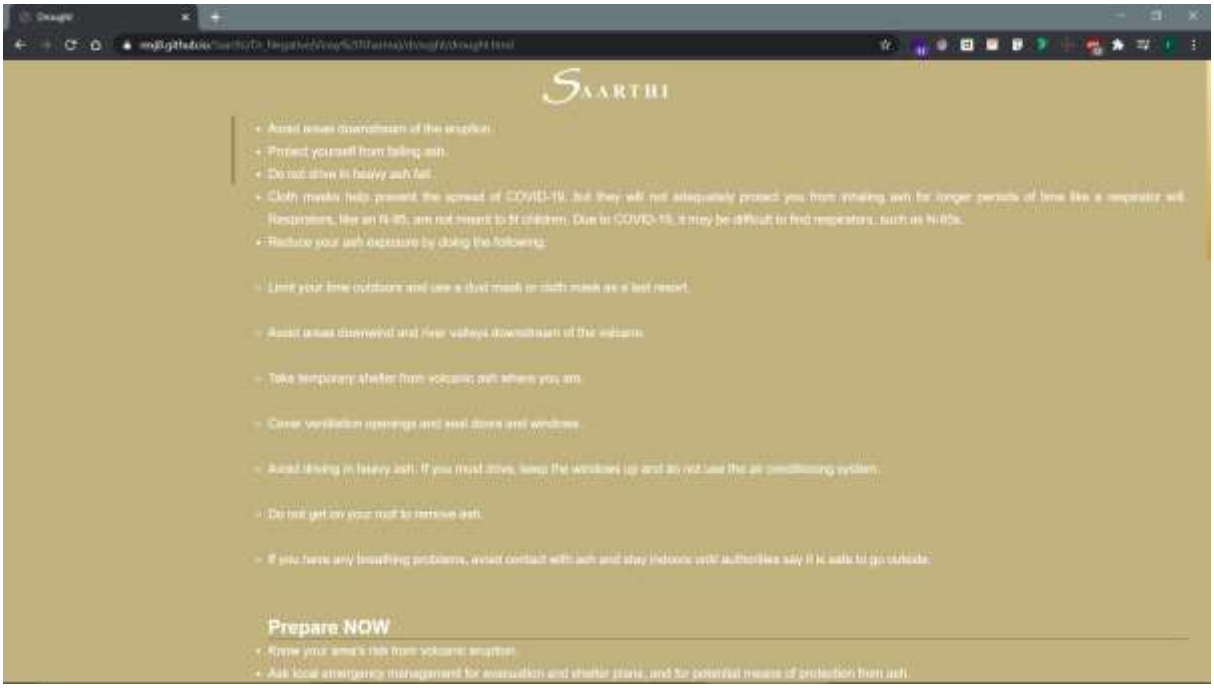
Drought
Volcanic Eruption
Forest Fire
Drought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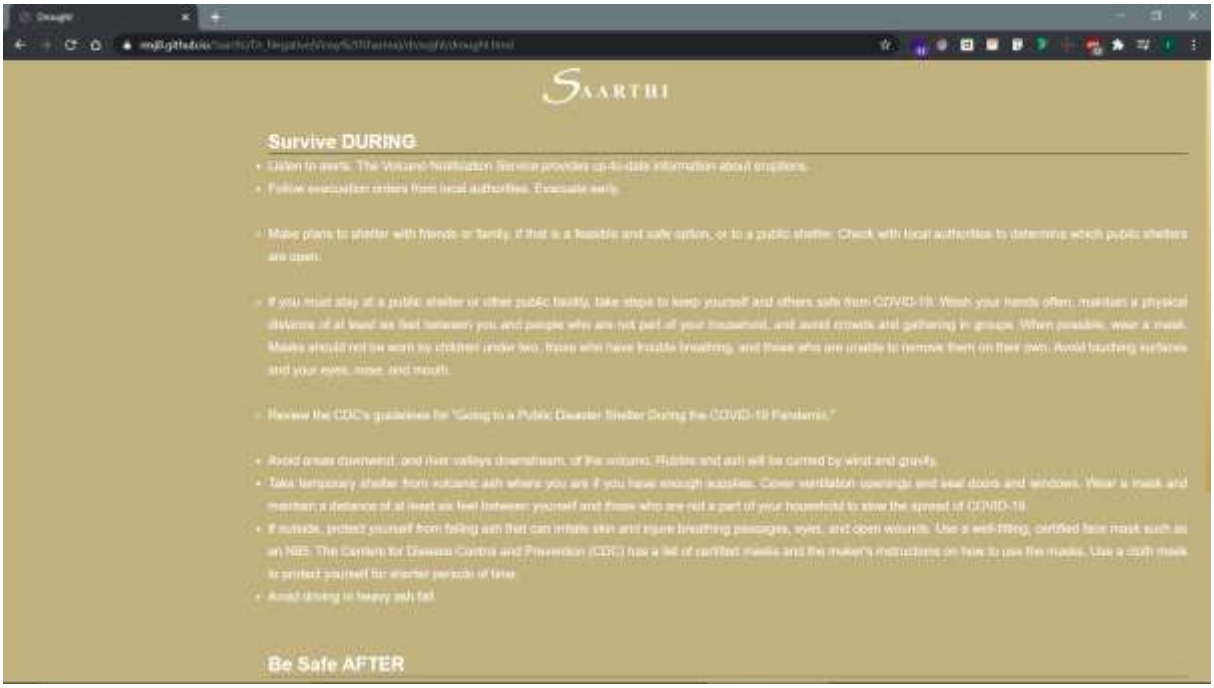
Prepare NOW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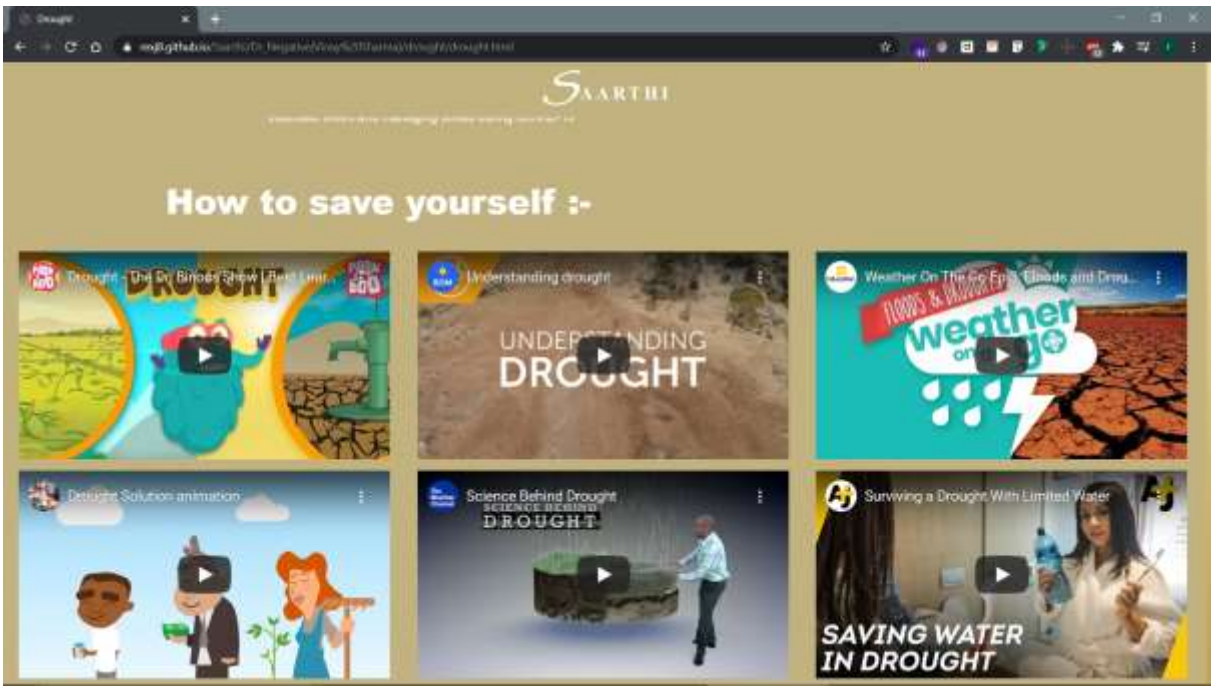
Survive DURING
Be Safe AFTER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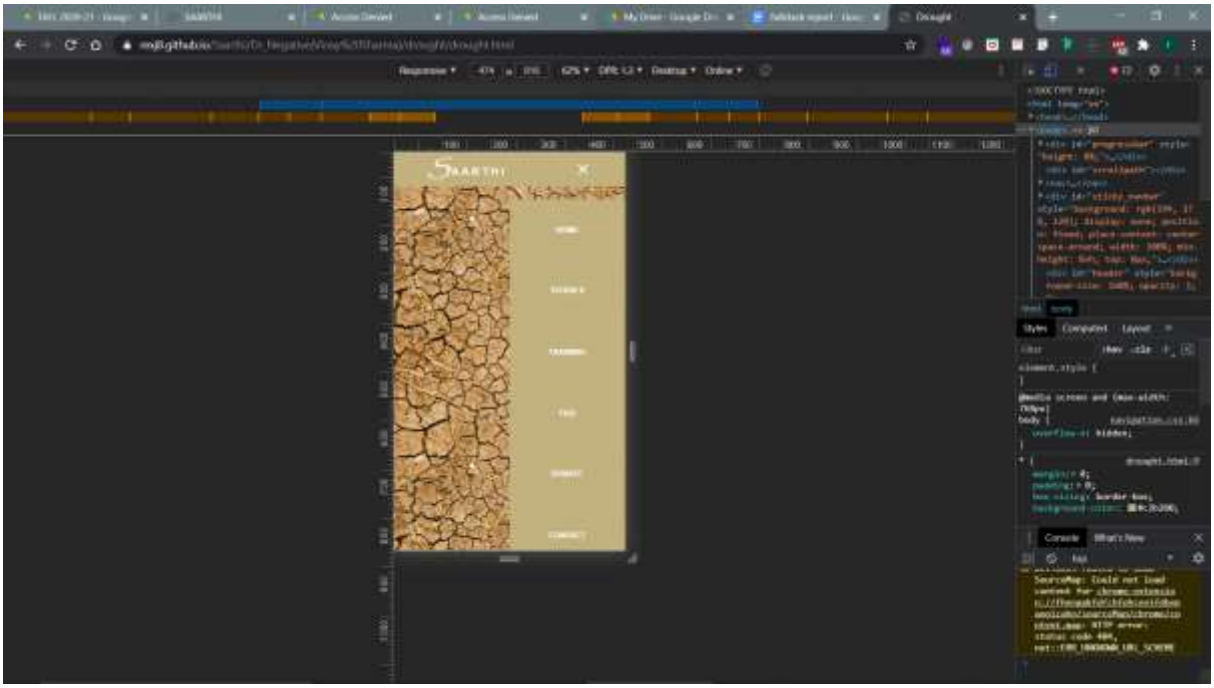
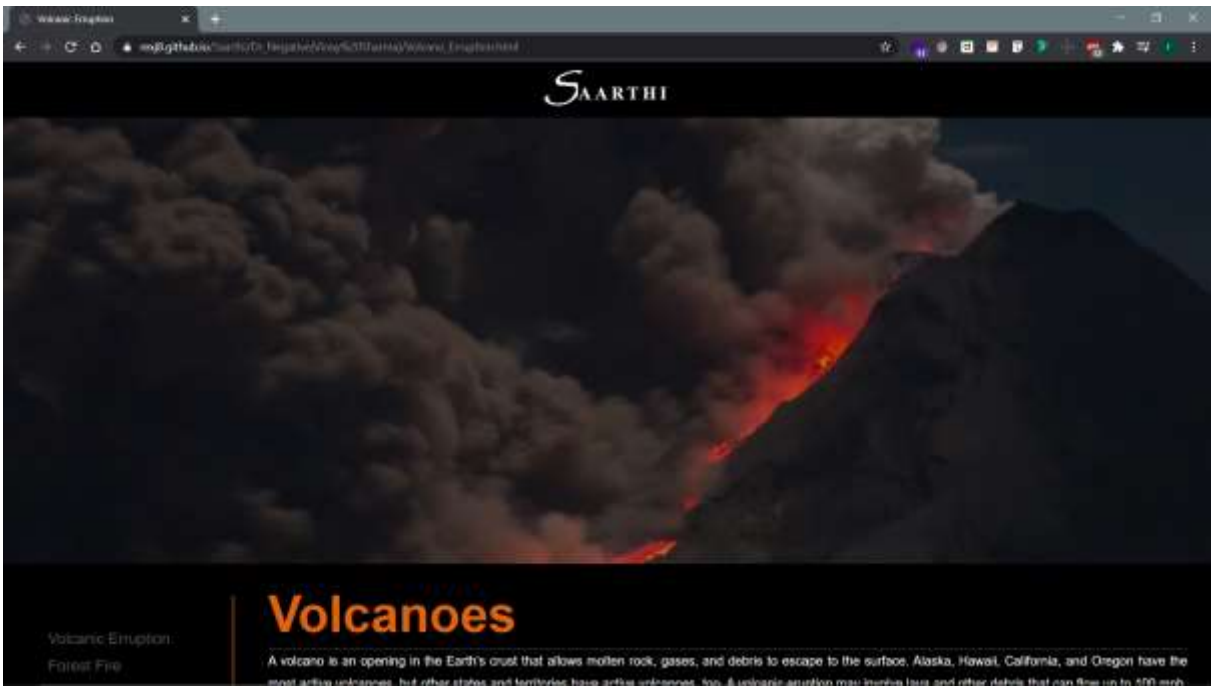
How to save yourself :-
Understanding drought
UNDERSTANDING
DROUGHT
Weather On The Go Ep 5 - Floods and Drou...
Weather on the go
Science Behind Drought
SCIENCE BEHIND
DROUGHT
Surviving a Drought With Limited Water
SAVING WATER
IN DROUGHT

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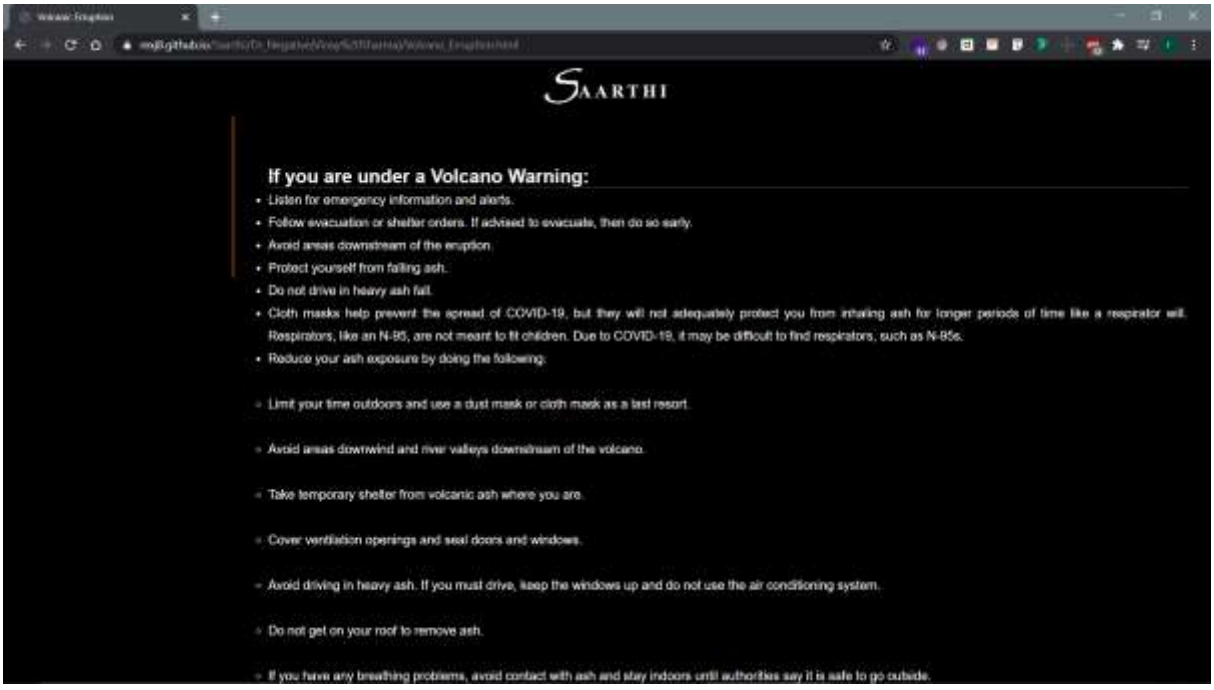
Volcanoes
Volcanic Eruption
Forest Fire
A volcano is an opening in the Earth's crust that allows molten rock, gases, and debris to escape to the surface. Alaska, Hawaii, California, and Oregon have the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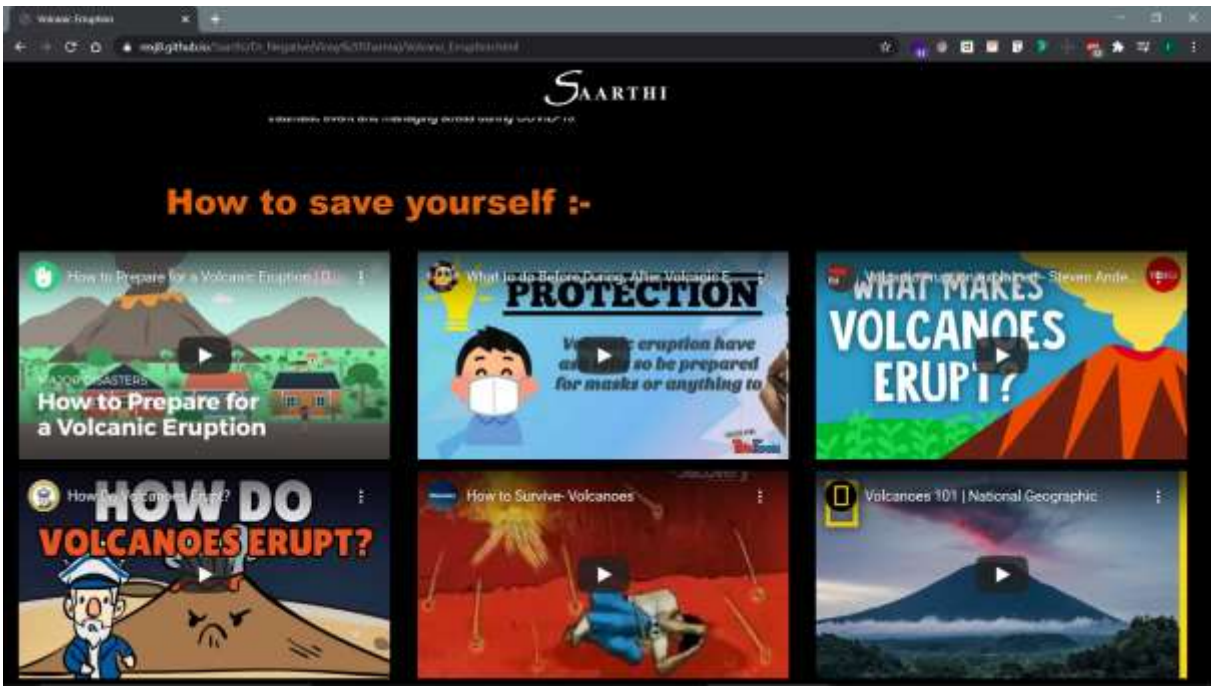
If you are under a Volcano Warning:
• Listen for emergency information and alerts.
• Follow evacuation or shelter orders. If advised to evacuate, then do so early.
• Avoid areas downstream of the eruption.
• Protect yourself from falling ash.
• Do not drive in heavy ash fall.
• Cloth masks help prevent the spread of COVID-19, but they will not adequately protect you from inhaling ash for longer periods of time like a respirator will. Respirators, like an N-95, are not meant to fit children. Due to COVID-19, it may be difficult to find respirators, such as N-95s.
• Reduce your ash exposure by doing the following:
◦ Limit your time outdoors and use a dust mask or cloth mask as a last resort.
◦ Avoid areas downwind and river valleys downstream of the volcano.
◦ Take temporary shelter from volcanic ash where you are.
◦ Cover ventilation openings and seal doors and windows.
◦ Avoid driving in heavy ash. If you must drive, keep the windows up and do not use the air conditioning system.
◦ Do not get on your roof to remove ash.
◦ If you have any breathing problems, avoid contact with ash and stay indoors until authorities say it is safe to go outside.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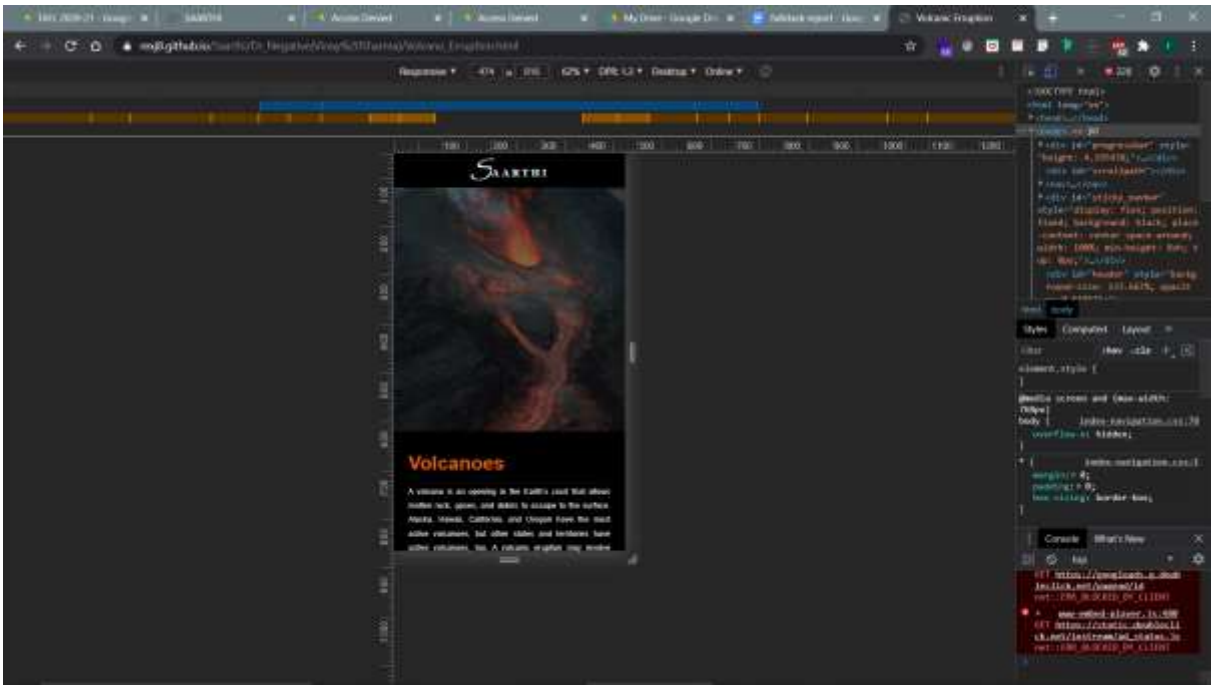
How to save yourself :-
How to Prepare for a Volcanic Eruption
PROTECTION
WHAT MAKES VOLCANOES ERUPT?
HOW DO VOLCANOES ERUPT?
How to Survive- Volcanoes
Volcanoes 101 | National Geographic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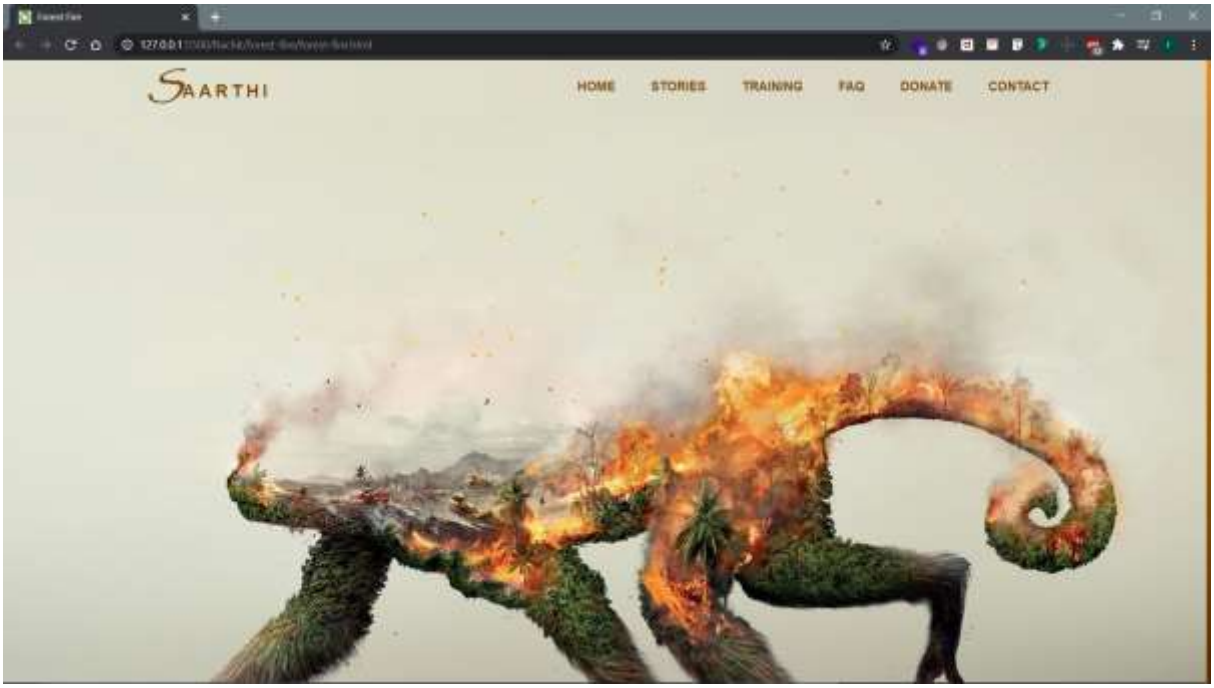
Volcanoes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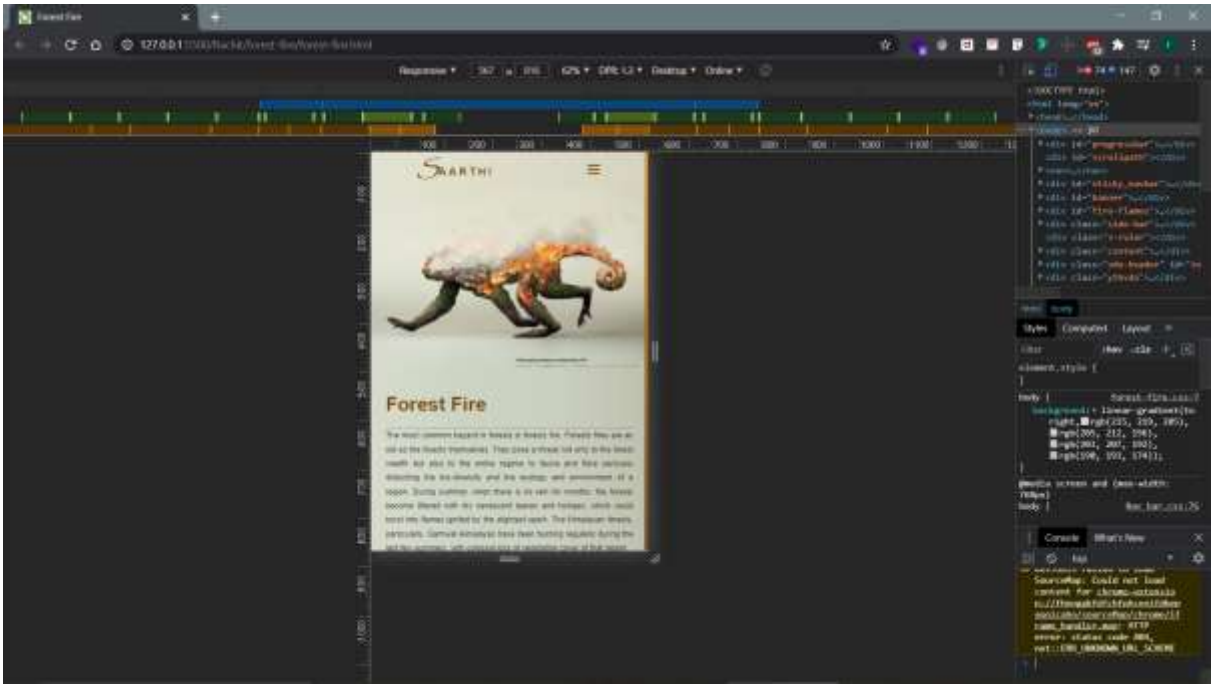
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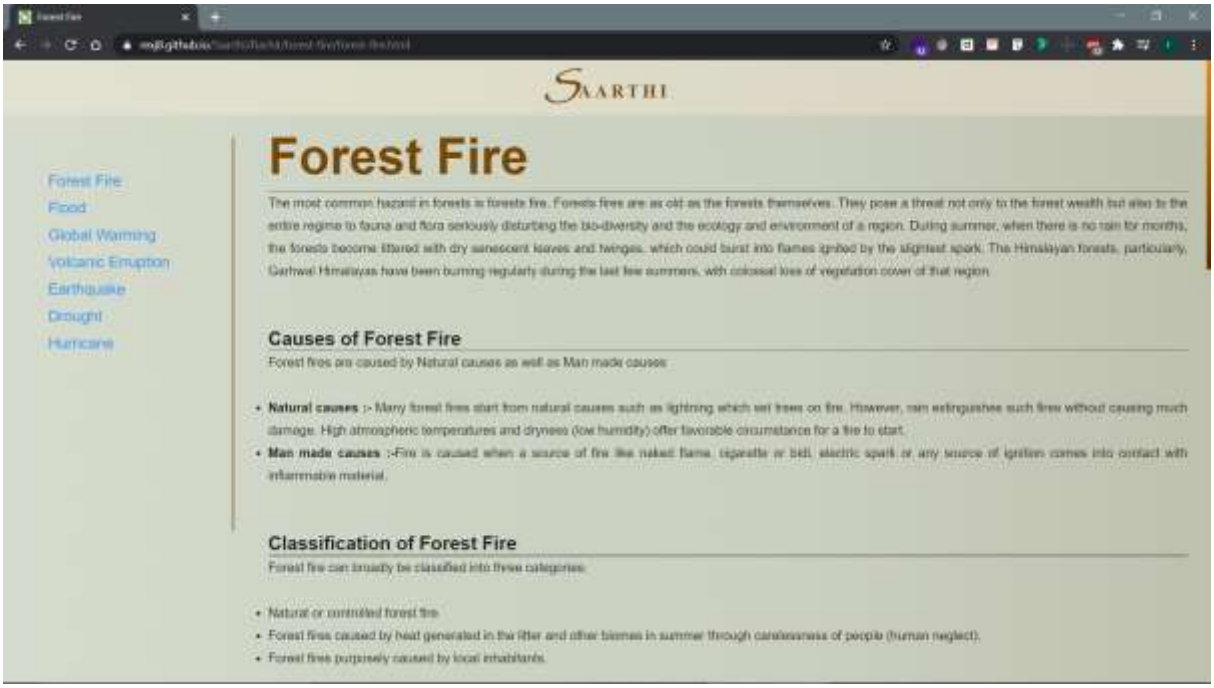
Forest Fire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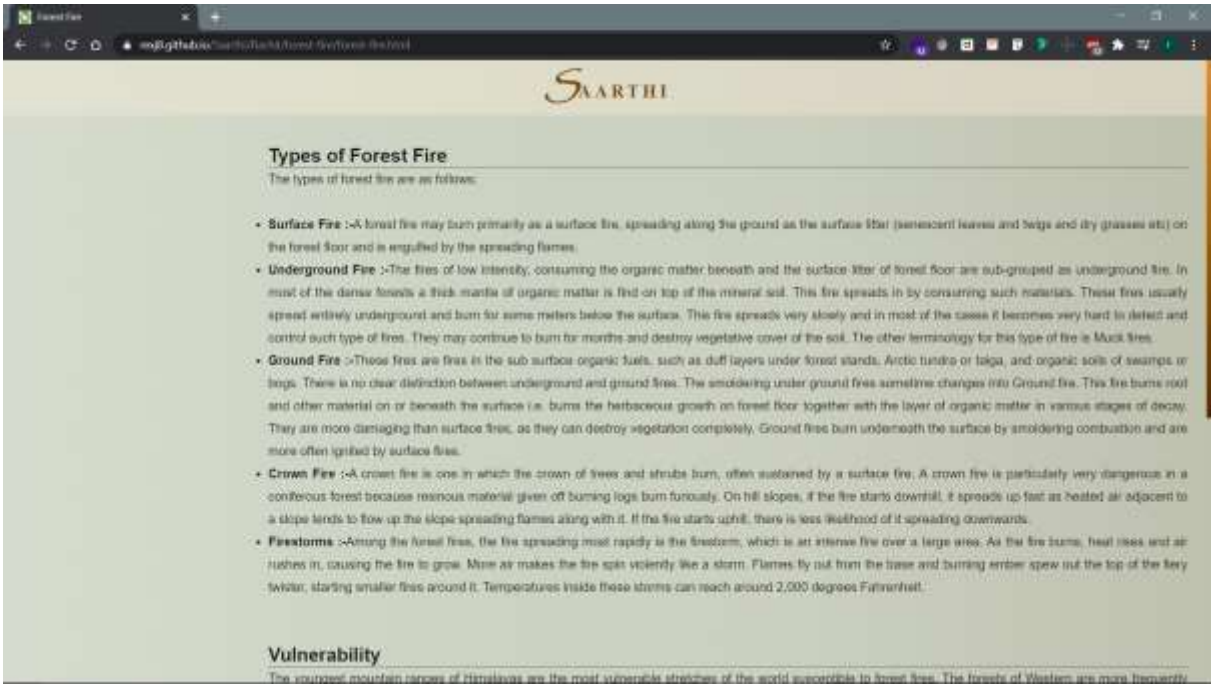
Forest Fire
Flood
Global Warming
Volcanic Eruption
Earthquake
Drought
Hurricane
Forest Fire
The most common hazard in forests is forests fire. Forests fires are as old as the forests themselves. They pose a threat not only to the forest wealth but also to the entire regime to fauna and flora seriously disturbing the bio-diversity and the ecology and environment of a region. During summer, when there is no rain for months, the forests become littered with dry senescent leaves and twiges, which could burst into flames ignited by the slightest spark. The Himalayan forests, particularly, Garhwal Himalayas have been burning regularly during the last few summers, with colossal loss of vegetation cover of that region.
Causes of Forest Fire
Forest fires are caused by Natural causes as well as Man made causes
Natural causes :- Many forest fires start from natural causes such as lightning which set trees on fire. However, rain extinguishes such fires without causing much damage. High atmospheric temperatures and dryness (low humidity) offer favorable circumstance for a fire to start.
Man made causes :-Fire is caused when a source of fire like naked flame, cigarette or bidi, electric spark or any source of ignition comes into contact with inflammable material.
Classification of Forest Fire
Forest fire can broadly be classified into three categories.
Natural or controlled forest fire
Forest fires caused by heat generated in the litter and other biomes in summer through carelessness of people (human neglect).
Forest fires purposely caused by local inhabitants.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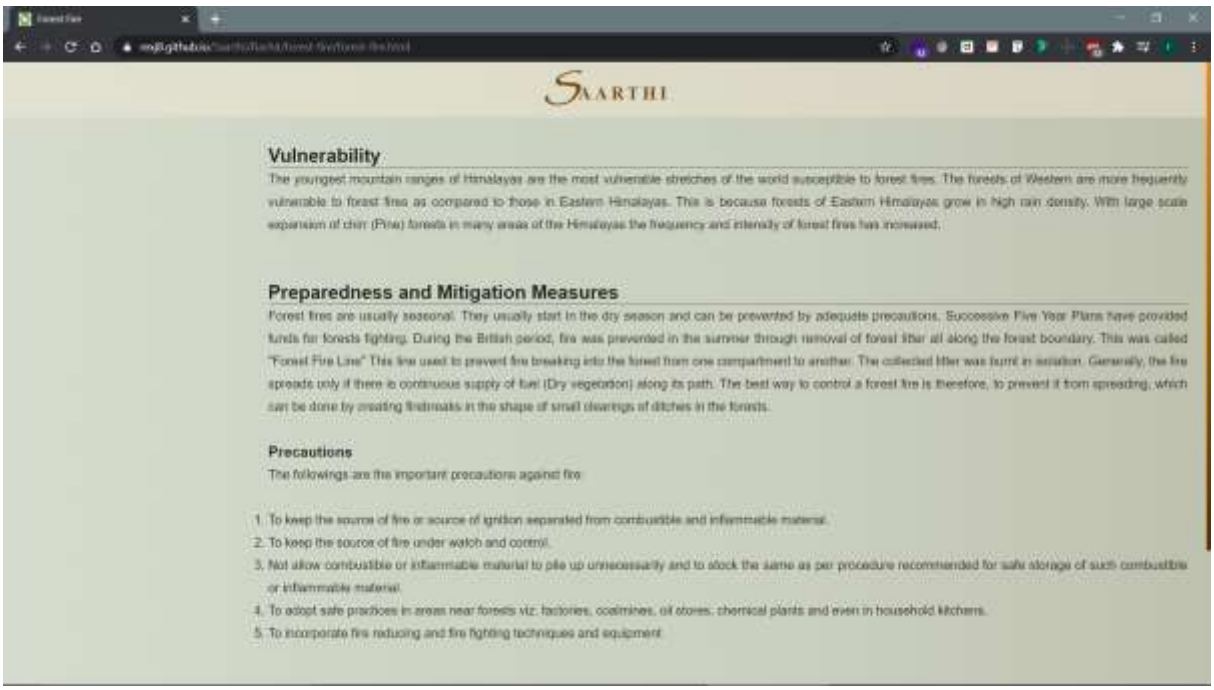
Types of Forest Fire
The types of forest fire are as follows:
Surface Fire :-A forest fire may burn primarily as a surface fire, spreading along the ground as the surface litter (senescent leaves and twigs and dry grasses etc) on the forest floor and is engulfed by the spreading flames.
Underground Fire :-The fires of low intensity, consuming the organic matter beneath and the surface litter of forest floor are sub-grouped as underground fire. In most of the dense forests a thick mantle of organic matter is find on top of the mineral soil. This fire spreads in by consuming such materials. These fires usually spread entirely underground and burn for some meters below the surface. This fire spreads very slowly and in most of the cases it becomes very hard to detect and control such type of fires. They may continue to burn for months and destroy vegetative cover of the soil. The other terminology for this type of fire is Muck fires.
Ground Fire :-These fires are fires in the sub surface organic fuels, such as duff layers under forest stands, Arctic tundra or taiga, and organic soils of swamps or bogs. There is no clear distinction between underground and ground fires. The smoldering under ground fires sometime changes into Ground fire. This fire burns root and other material on or beneath the surface i.e. burns the herbaceous growth on forest floor together with the layer of organic matter in various stages of decay. They are more damaging than surface fires, as they can destroy vegetation completely. Ground fires burn underneath the surface by smoldering combustion and are more often ignited by surface fires.
Crown Fire :-A crown fire is one in which the crown of trees and shrubs burn, often sustained by a surface fire. A crown fire is particularly very dangerous in a coniferous forest because resinous material given off burning logs burn furiously. On hill slopes, if the fire starts downhill, it spreads up fast as heated air adjacent to a slope tends to flow up the slope spreading flames along with it. If the fire starts uphill, there is less likelihood of it spreading downwards.
Firestorms :-Among the forest fires, the fire spreading most rapidly is the firestorm, which is an intense fire over a large area. As the fire burns, heat rises and air rushes in, causing the fire to grow. More air makes the fire spin violently like a storm. Flames fly out from the base and burning ember spew out the top of the fiery twister, starting smaller fires around it. Temperatures inside these storms can reach around 2,000 degrees Fahrenheit.
Vulnerability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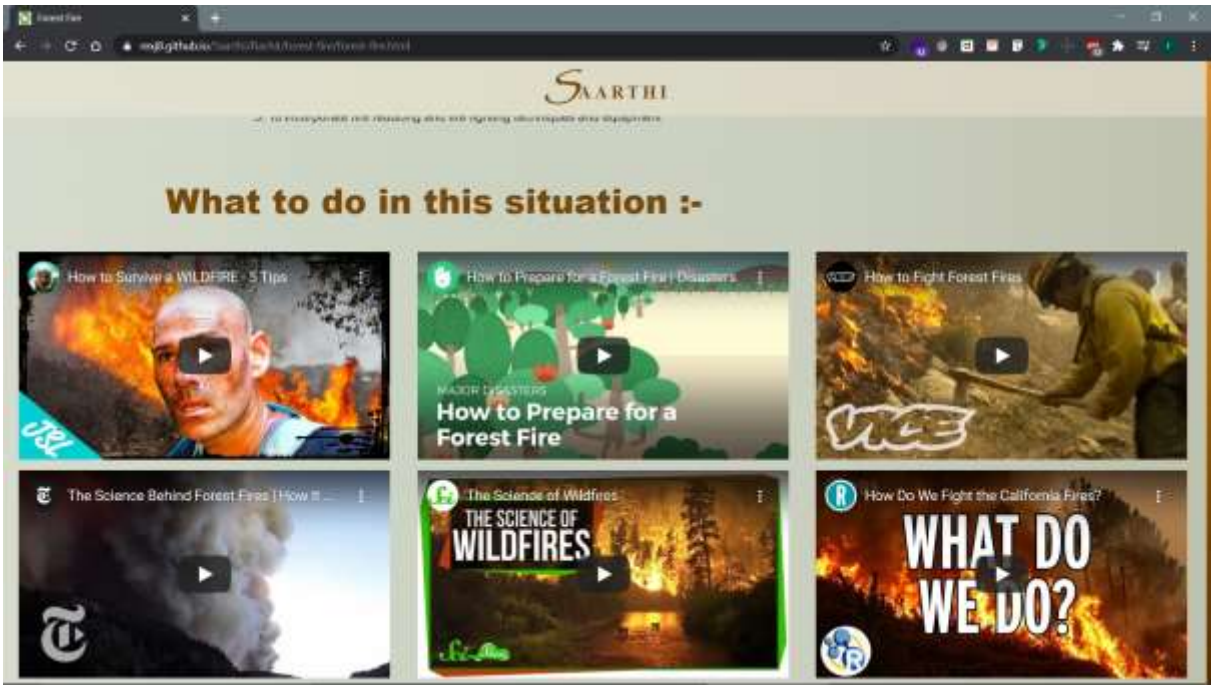
Vulnerability
The youngest mountain ranges of Himalayas are the most vulnerable stretches of the world susceptible to forest fires. The forests of Western are more frequently vulnerable to forest fires as compared to those in Eastern Himalayas. This is because forests of Eastern Himalayas grow in high rain density. With large scale expansion of chir (Pine) forests in many areas of the Himalayas the frequency and intensity of forest fires has increased.
Preparedness and Mitigation Measures
Forest fires are usually seasonal. They usually start in the dry season and can be prevented by adequate precautions. Successive Five Year Plans have provided funds for forests fighting. During the British period, fire was prevented in the summer through removal of forest litter all along the forest boundary. This was called "Forest Fire Line" This line used to prevent fire breaking into the forest from one compartment to another. The collected litter was burnt in isolation. Generally, the fire spreads only if there is continuous supply of fuel (Dry vegetation) along its path. The best way to control a forest fire is therefore, to prevent it from spreading, which can be done by creating firebreaks in the shape of small clearings of ditches in the forests.
Precautions
The followings are the important precautions against fire
1. To keep the source of fire or source of ignition separated from combustible and inflammable material.
2. To keep the source of fire under watch and control.
3. Not allow combustible or inflammable material to pile up unnecessarily and to stock the same as per procedure recommended for safe storage of such combustible or inflammable material.
4. To adopt safe practices in areas near forests viz. factories, coalmines, oil stores, chemical plants and even in household kitchens.
5. To incorporate fire reducing and fire fighting techniques and equipment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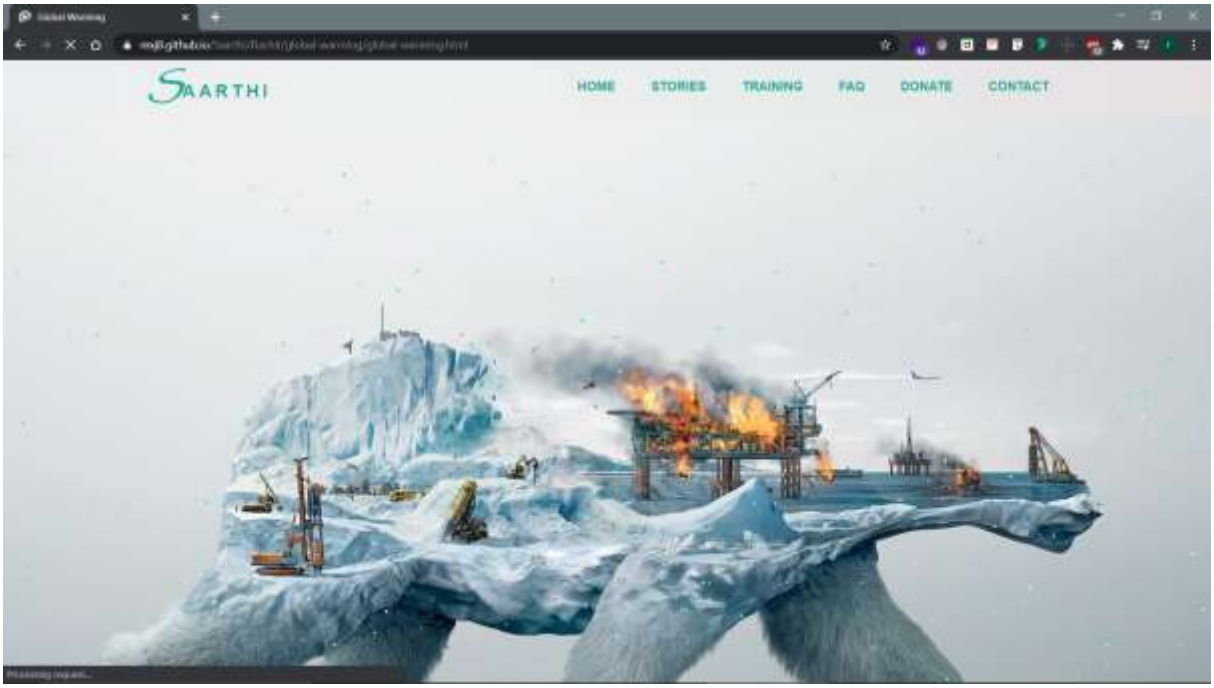
What to do in this situation :-
How to Survive a WILDFIRE - 5 Tips
How to Prepare for a Forest Fire | Disasters
MAJOR DISASTERS
How to Prepare for a Forest Fire
How to Fight Forest Fires
VICE
The Science Behind Forest Fires | How It ...
The Science of Wildfires
THE SCIENCE OF WILDFIRES
How Do We Fight the California Fires?
WHAT DO WE DO?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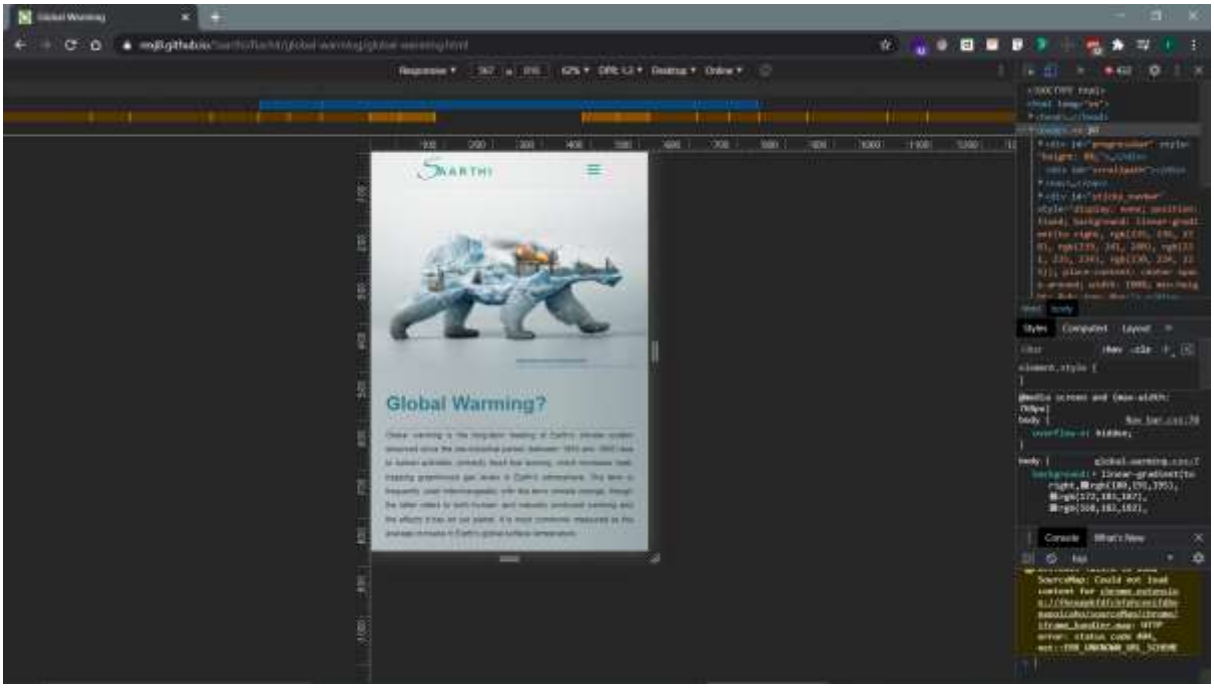
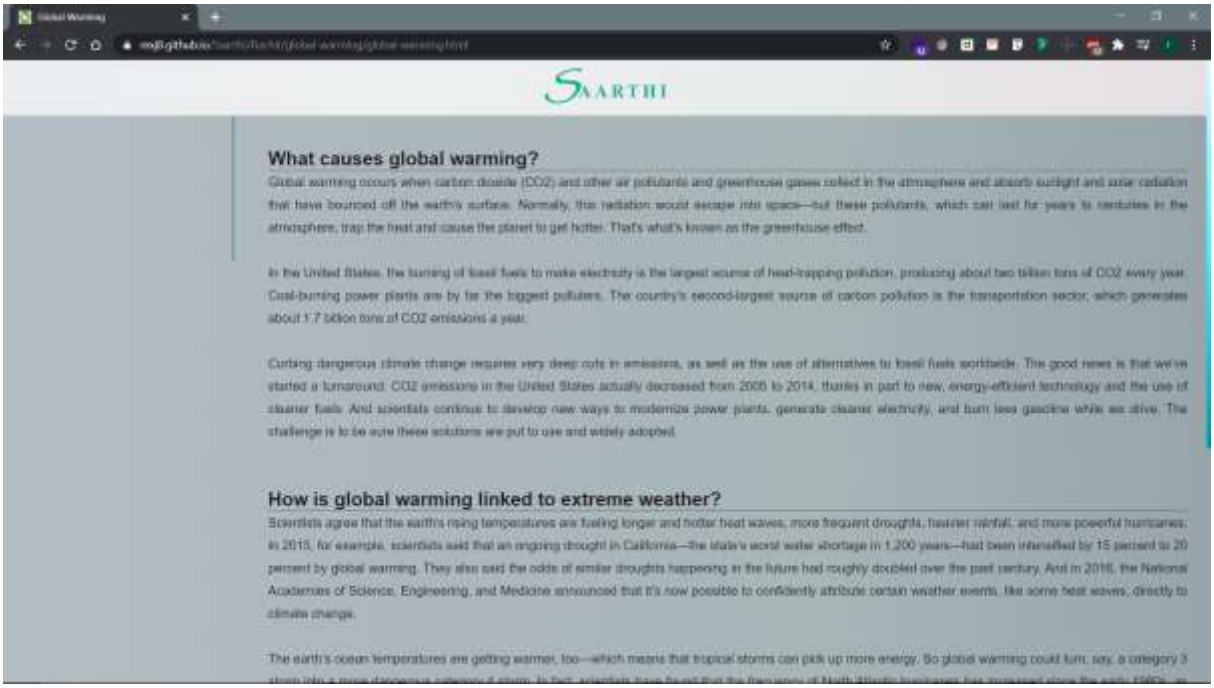
Destroying nature is destroying life.
Global Warming?
Global Warming
Flood
Volcanic Eruption
Forest Fire
Earthquake
Drought
Hurricane
Global warming is the long-term heating of Earth's climate system observed since the pre-industrial period (between 1850 and 1900) due to human activities, primarily fossil fuel burning, which increases heat-trapping greenhouse gas levels in Earth's atmosphere. The term is frequently used interchangeably with the term climate change, though the latter refers to both human- and naturally produced warming and the effects it has on our planet. It is most commonly measured as the average increase in Earth's global surface temperature.
Since the pre-industrial period, human activities are estimated to have increased Earth's global average temperature by about 1 degree Celsius (1.8 degrees Fahrenheit), a number that is currently increasing by 0.2 degrees Celsius (0.36 degrees Fahrenheit) per decade. Most of the current warming trend is extremely likely (greater than 95 percent probability) the result of human activity since the 1950s and is proceeding at an unprecedented rate over decades to millennia.


SAARTHI
Global Warming?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What causes global warming?
Global warming occurs when carbon dioxide (CO2) and other air pollutants and greenhouse gases collect in the atmosphere and absorb sunlight and solar radiation that have bounced off the earth's surface. Normally, this radiation would escape into space—but these pollutants, which can last for years to centuries in the atmosphere, trap the heat and cause the planet to get hotter. That's what's known as the greenhouse effect.
In the United States, the burning of fossil fuels to make electricity is the largest source of heat-trapping pollution, producing about two billion tons of CO2 every year. Coal-burning power plants are by far the biggest polluters. The country's second-largest source of carbon pollution is the transportation sector, which generates about 1.7 billion tons of CO2 emissions a year.
Curbing dangerous climate change requires very deep cuts in emissions, as well as the use of alternatives to fossil fuels worldwide. The good news is that we've started a turnaround. CO2 emissions in the United States actually decreased from 2005 to 2014, thanks in part to new, energy-efficient technology and the use of cleaner fuels. And scientists continue to develop new ways to modernize power plants, generate cleaner electricity, and burn less gasoline while we drive. The challenge is to be sure these solutions are put to use and widely adopted.
How is global warming linked to extreme weather?
Scientists agree that the earth's rising temperatures are fueling longer and hotter heat waves, more frequent droughts, heavier rainfall, and more powerful hurricanes. In 2015, for example, scientists said that an ongoing drought in California—the state's worst water shortage in 1,200 years—had been intensified by 15 percent to 20 percent by global warming. They also said the odds of similar droughts happening in the future had roughly doubled over the past century. And in 2016, the National Academies of Science, Engineering, and Medicine announced that it's now possible to confidently attribute certain weather events, like some heat waves, directly to climate change.
The earth's ocean temperatures are getting warmer, too—which means that tropical storms can pick up more energy. So global warming could turn, say, a category 3


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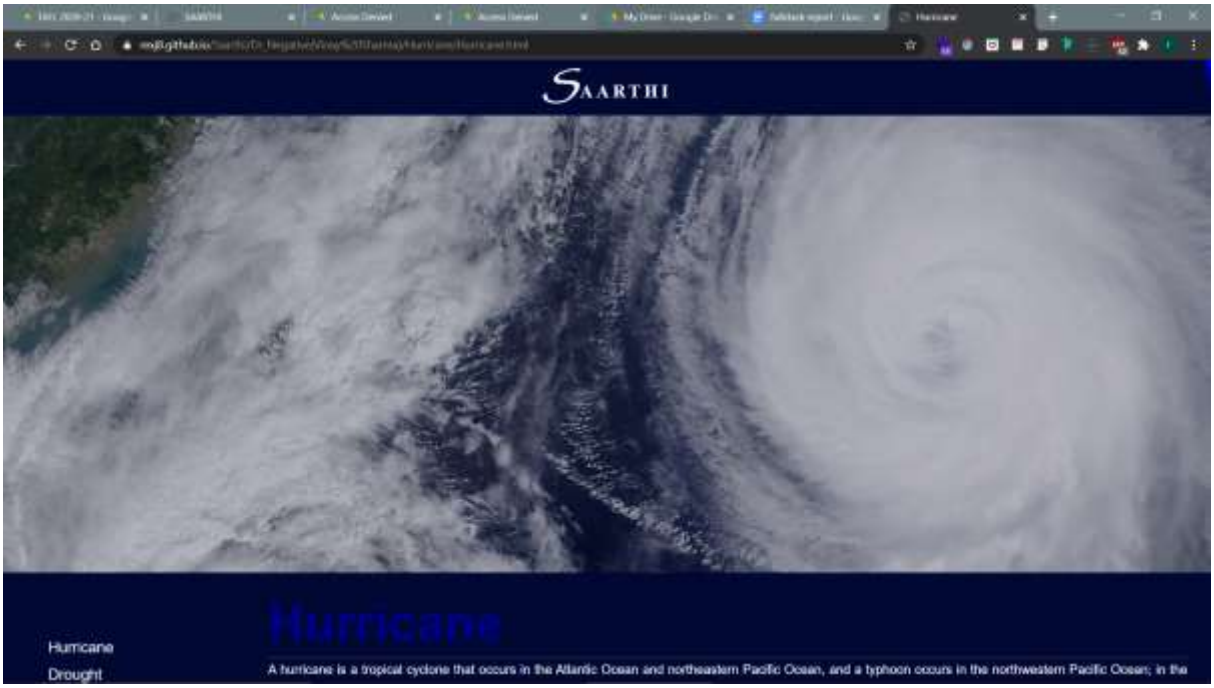
How to stop Global Warming :-
STOP GLOBAL WARMING
Ways To Stop Global Warming
10-ways to reduce Global Warming
SAVE ME PLZ...
How to Help Prevent Global Warming
GLOBAL WARMING
CLIMATE CHANGE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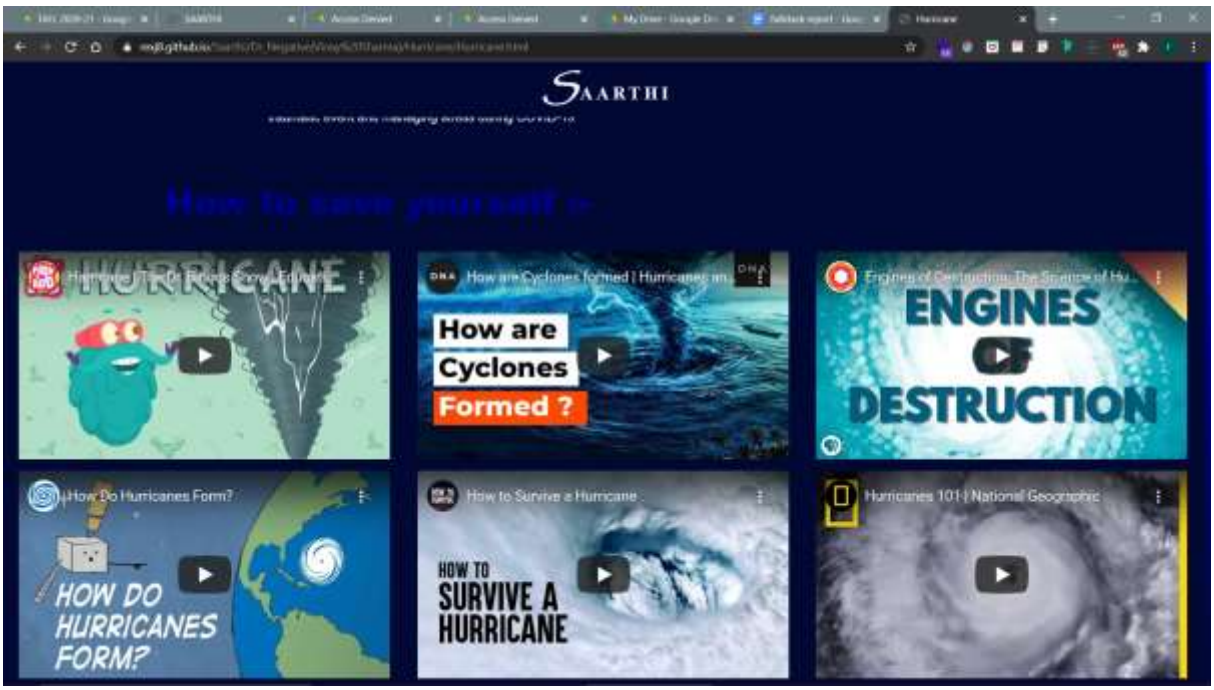
Hurricane
Drought
Hurricane
A hurricane is a tropical cyclone that occurs in the Atlantic Ocean and northeastern Pacific Ocean, and a typhoon occurs in the northwestern Pacific Ocean; in the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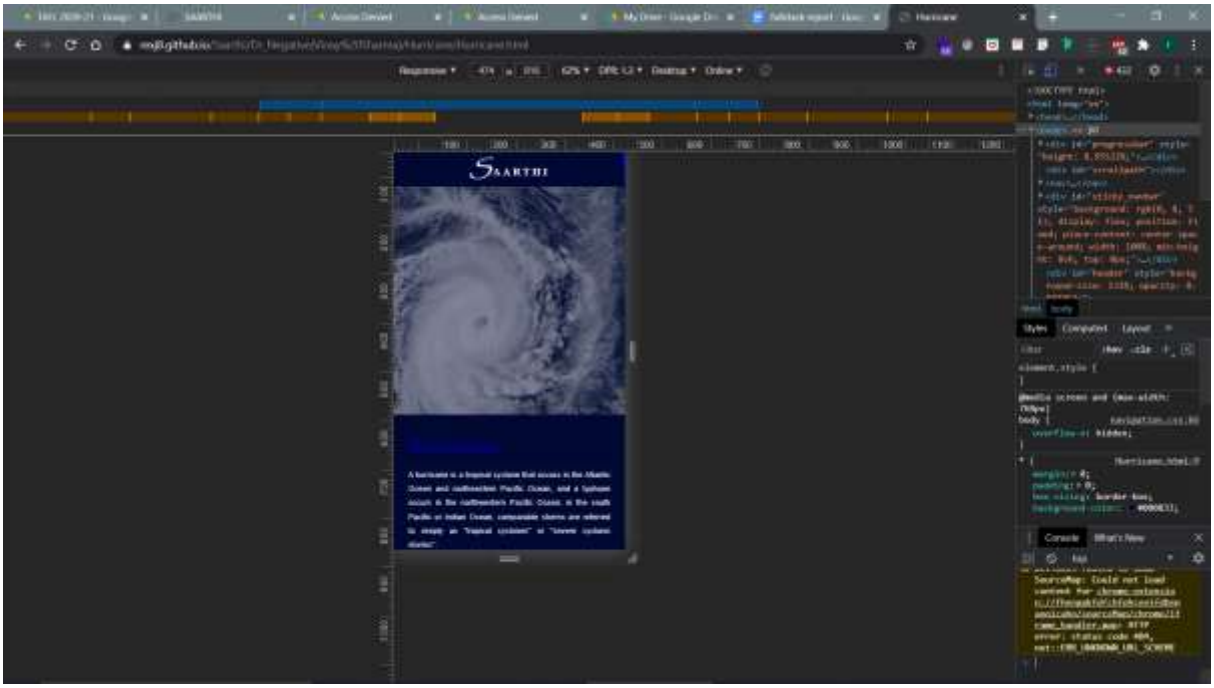
How to save yourself ?
How are Cyclones Formed ?
ENGINES OF DESTRUCTION
HOW DO HURRICANES FORM?
HOW TO SURVIVE A HURRICANE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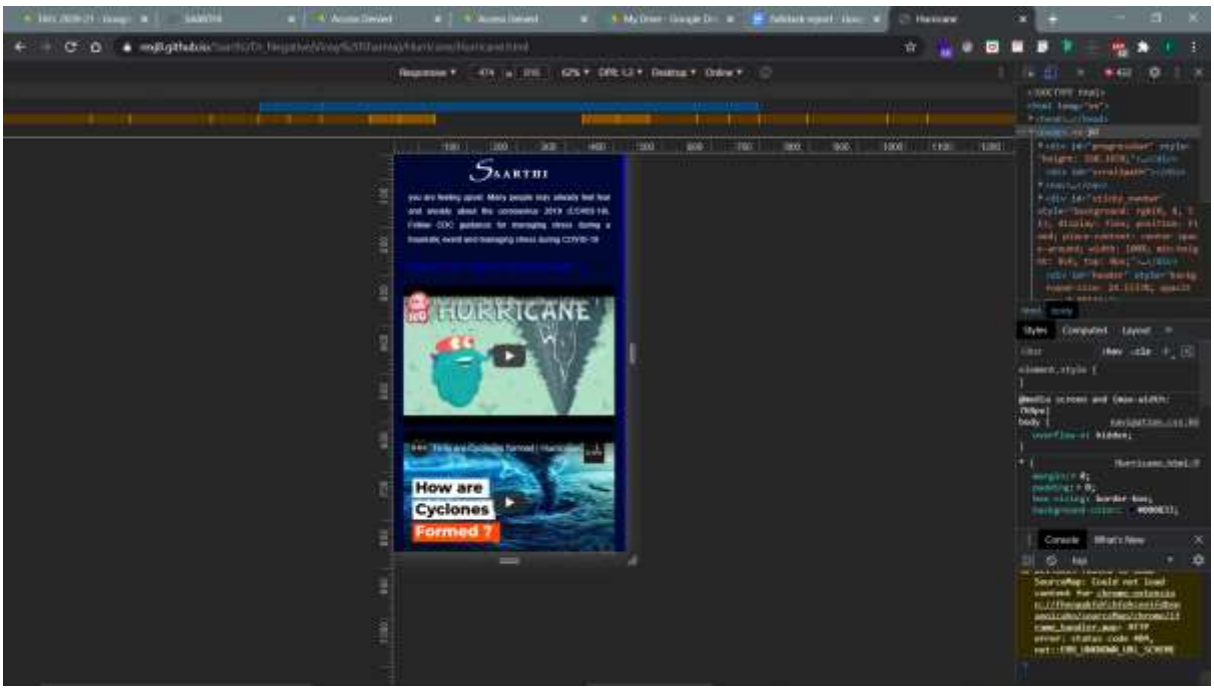
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HURRICANE
How are
Cyclones
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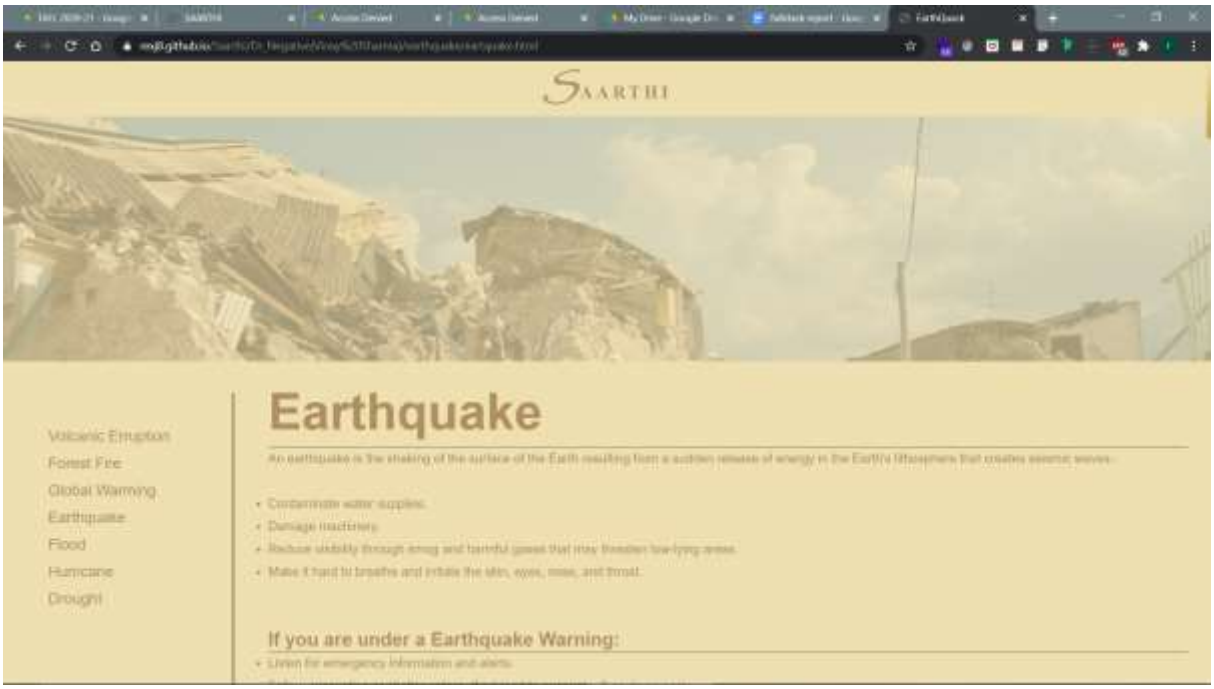
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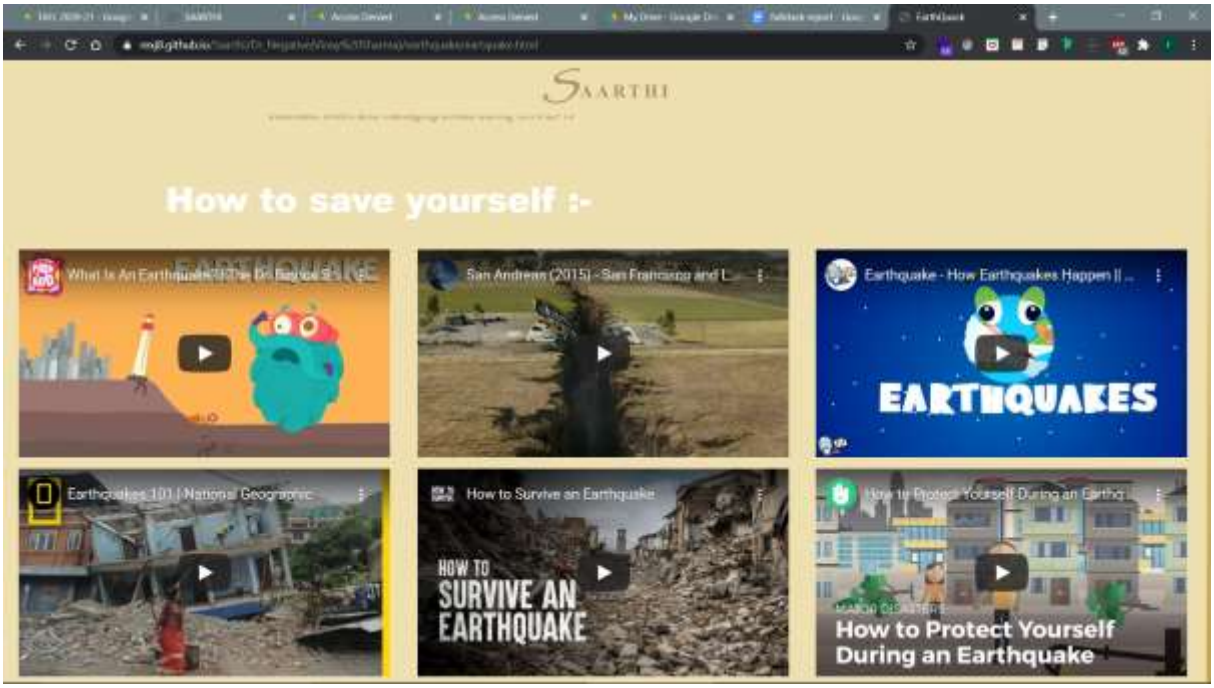
Earthquake
Volcanic Eruption
Forest Fire
Global Warming
Earthquake
Flood
Hurricane
Drought
If you are under a Earthquake Warning: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HOW TO
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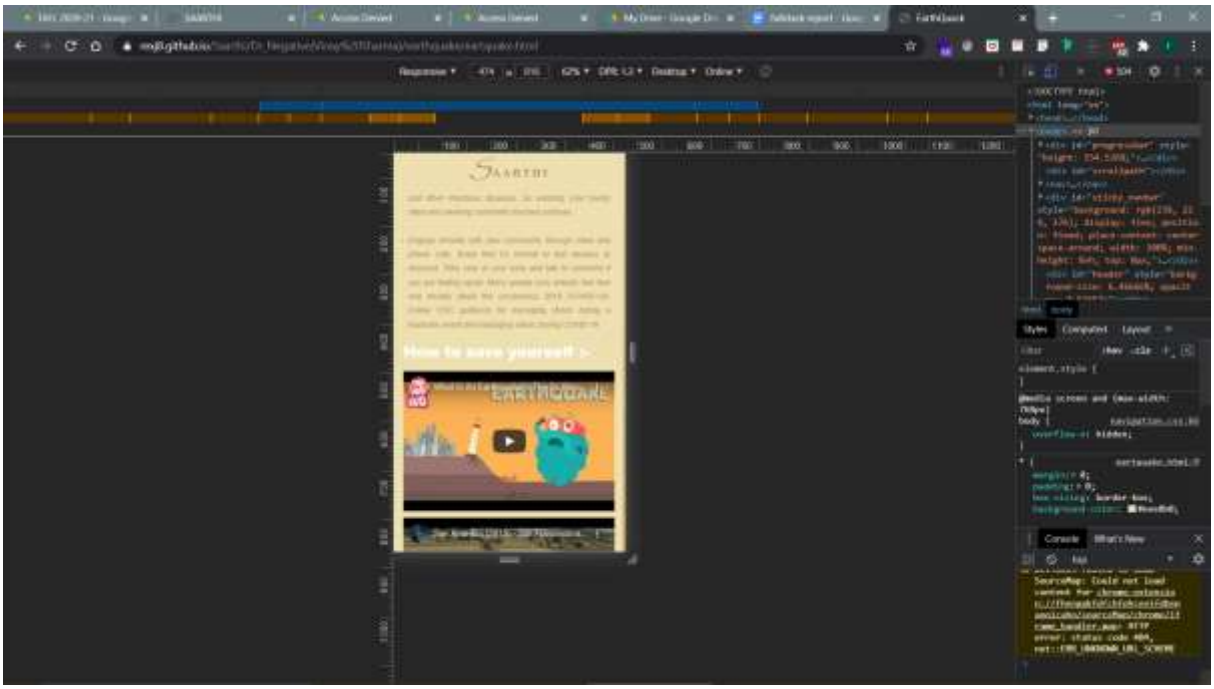
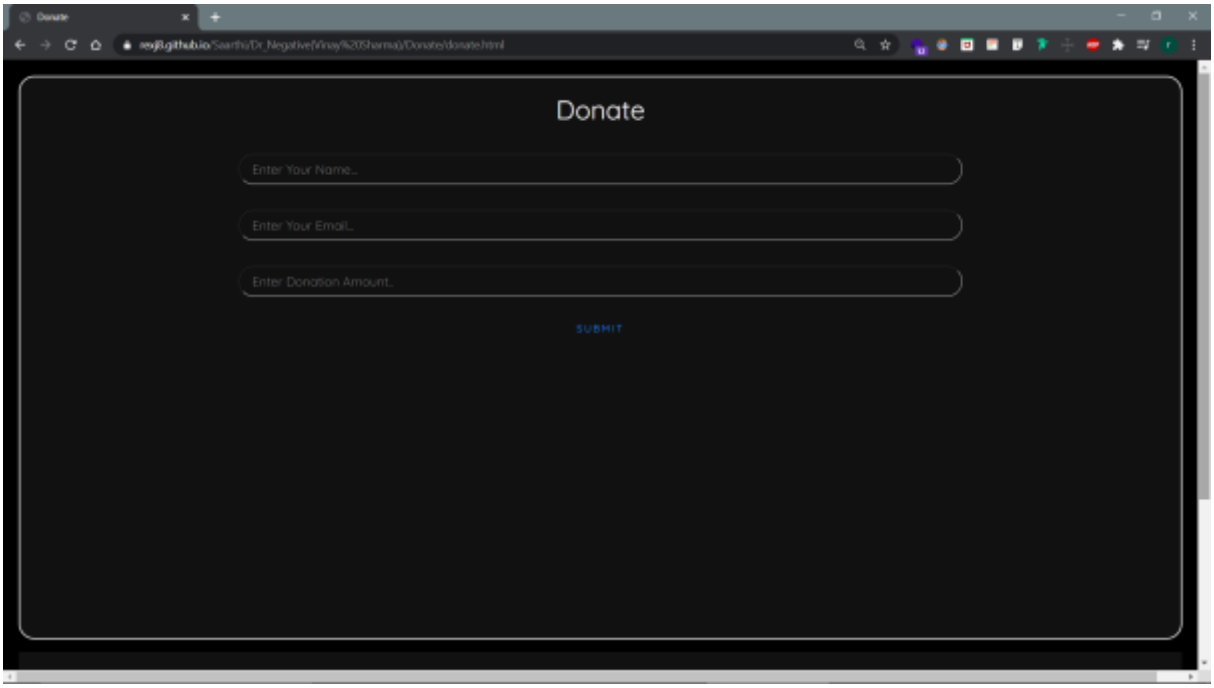
How to Protect Yourself
During an Earthquake

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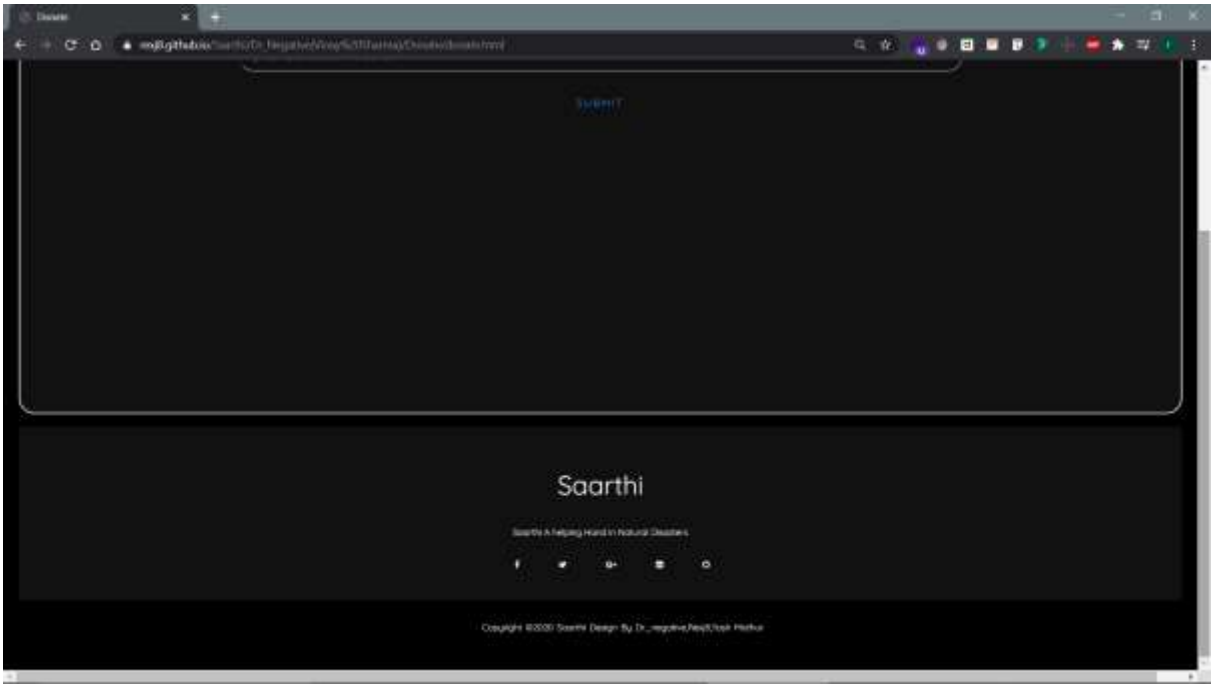
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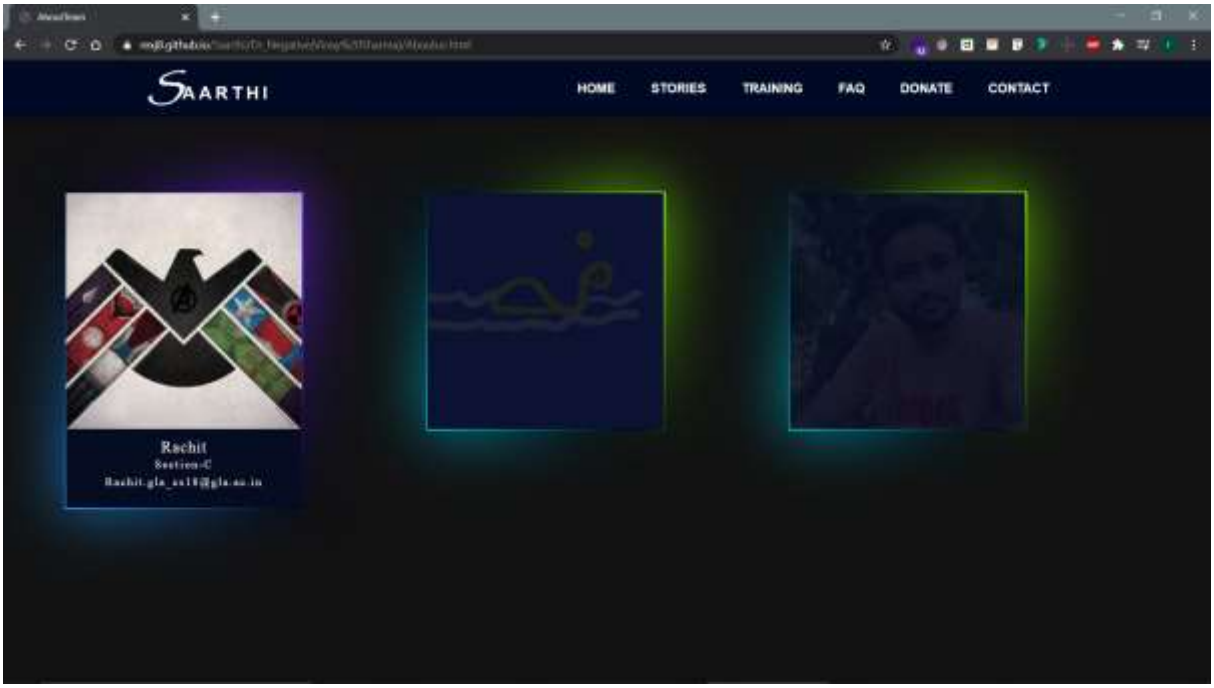
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FAQ
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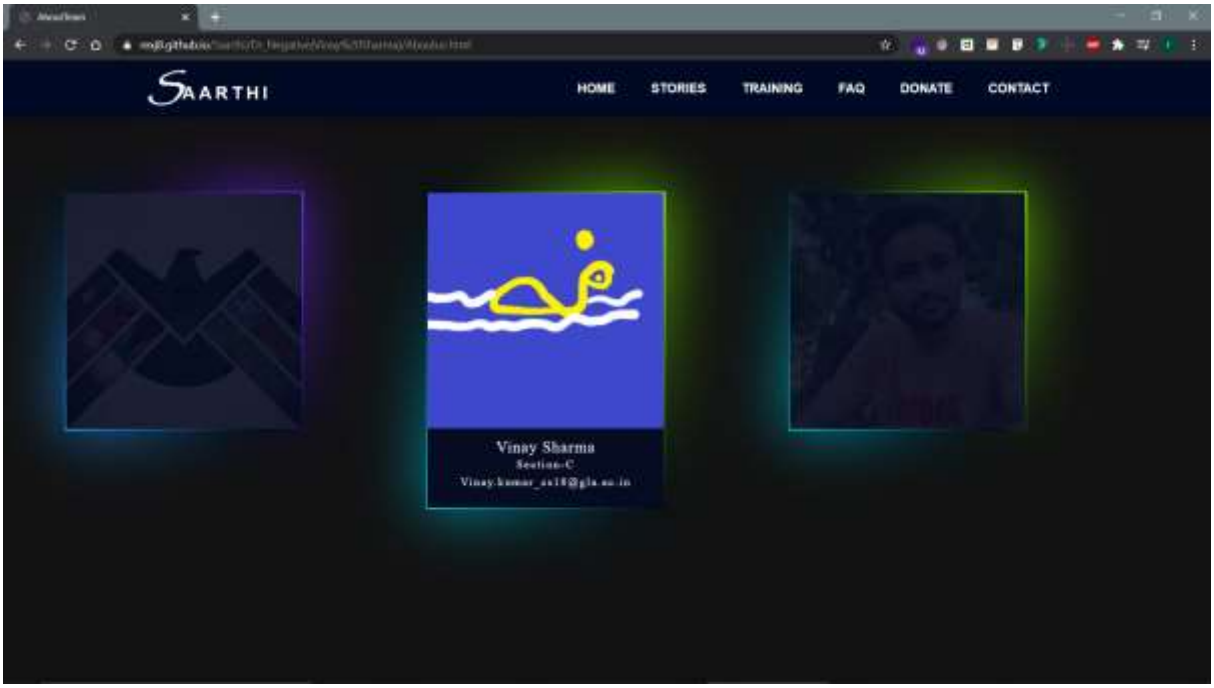
CONTACT
Rachit
Section-C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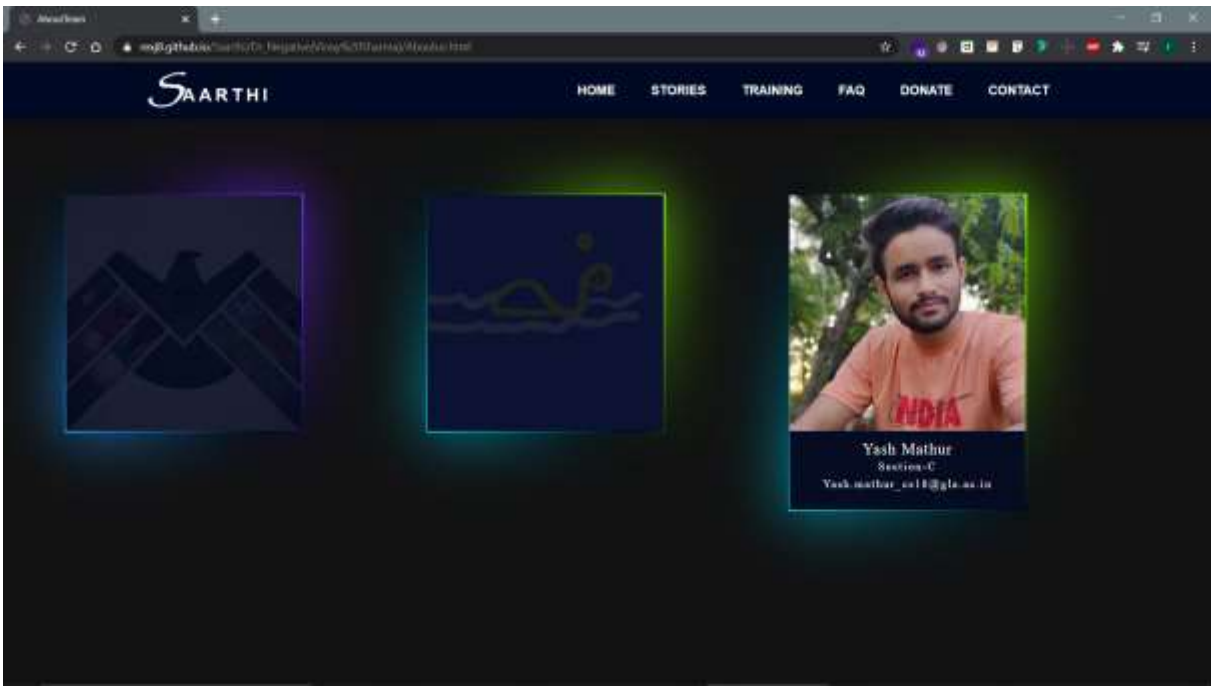
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