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Student Name: SRIJEET STHAPIT

Group: C9

London Met ID: 19031714

College ID: 190218

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I confirm that I understand my coursework needs to be submitted online via Google Classroom under the relevant module page before the deadline in order for my assignment to be accepted and marked. I am fully aware that late submissions will be treated as non-submission and a marks of zero will be awarded.

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Introduction

Introduction to Project

This project requires us to construct a portfolio website with at least 5 pages to establish basic understanding of the Internet technologies and the impacts made by internet in their daily lives. The 5 pages are: Home, Blog, CV, Research and Contact. Home page is the landing page with navigation to other pages through navigation. Blog page should contain blogs explaining how the effects of technology in their daily lives. CV page must cover descriptions about the creator of the webpage along with his qualifications. Research page must comprise a comparison of their web components with that of other websites. Finally contact page must hold a form where the user can input their details and message. Although the contents on all of the pages are different, components such as navigation bar and footer remain constant in all the page and help navigate the users.

Goals and Objectives

The aim of the project is to build a stable webpages which includes 5 pages with different contents on each page. The pages must include a contact page with form, a blog regarding impacts of technology, cv with something about me, research page with the research done and a homepage.. The objectives taken in consideration to achieve the goals are as follows:

1. To research the content suitable for all pages.
2. Research of the required things in footer and header.
3. To make navigation around the page as easy as possible.
4. To enhance the design of webpage to make it appealing to users.
5. To get familiar with the uses of html tags, css and JavaScript.

6. To provide quality content to the users.
7. To find the websites with similar web components and compare them

Use of HTML, CSS and JavaScript while developing website

HTML stands for Hyper Text Markup Language. It is the basic building block of the web which defines the meaning and structure of web content.

CSS stands for Cascading Style Sheet. It is used for describing the presentation of a document written in HTML.

JavaScript (JS) is a scripting language which determines the dynamic and interactive elements on the page. It determines what happens when users click, hover or type within certain elements. This is kind of like the functionality of the building.

HTML, CSS and JavaScript are interlinked to each other. In order to make a website, one is incomplete without the other.

Let's take the example of one of the houses. A house has 2 bedrooms, 2 bathrooms and 2 stories. That is the HTML of the building. It is made of brick and has a solid wood door. That corresponds to the CSS of the building. What can you do within the house? You can eat... sleep... make meals... anything that you do at home, really! That is the JavaScript of the building. (Blog, n.d.)

In this project, HTML was used to structure the content. CSS was used to style the contents of HTML and finally JS was used to change contents dynamically, create an image slider and to validate a form.

Discussion and Analysis

Selected Text Editor: Visual Studio Code

Visual Studio Code is a code editor redefined and optimized for building and debugging modern web and cloud applications. The reason for choosing this editor is that it is free, simple to use and faster than other IDEs. It has the install extensions for programming languages as well. So, Visual Studio Code is used to code the HTML, CSS and JavaScript part of the webpage

Tool used for developing Wireframe: Balsamiq Mockups 3

Balsamiq Mockups is a user interface design tool for creating wireframes (also called mockups or low-fidelity prototypes). It has been used to generate digital sketches of the website to facilitate understanding before any code was written.

Page 1: Home

Explanation of Content of Home

The Navigation bar has header as id. The navigation menus (Home, Blog, CV, Research and Contact) are written within container and aligned to right using flex properties. Every item of the navigation bar have hover style defined in the css. While hovering. The padding and colour changes with a shift. The active page have been given a certain properties as well.

The banner below the navigation bar has banner as class. It is further divided into two divs: one with image and the other for texts and buttons. The position of image is set to relative with 60px from top and 88vh height. The contents of banner and button are set to absolute and positioned to the vertical centre using top and transform properties. Button references to the id of lower div. So whenever the button is clicked, the webpage scrolls to the div with the referenced id.

The main-contents have been enclosed within index div. It is divided into two divs: title and index-content. Title simply contains “View More”. Index-content div has the styles of container as well. It is divided into 4 divs and each div contains an image and a text with link to the page.. They are positioned two divs per row using grid properties of css3. The main code of line responsible for this are “display: grid” and “grid-template-columns: 1fr, 1fr”. The later one simply means that only 2 columns can be fitted into a row. The image and text are given a hover property where they become larger.

Finally, the footer is divided into two divisions: upper-footer and lower-footer. Both of them are enclosed within container. Upper footer is divided into 4 further divs and displayed in row using flex property (flex-direction: column). 1st column contains contact details, 2nd contains useful links, 3rd contains link to social media sites and the final column contains a input field and a button for newsletter subscription .The lower-footer contains details such as copyright and designed by.

Screenshot of wireframes of Home

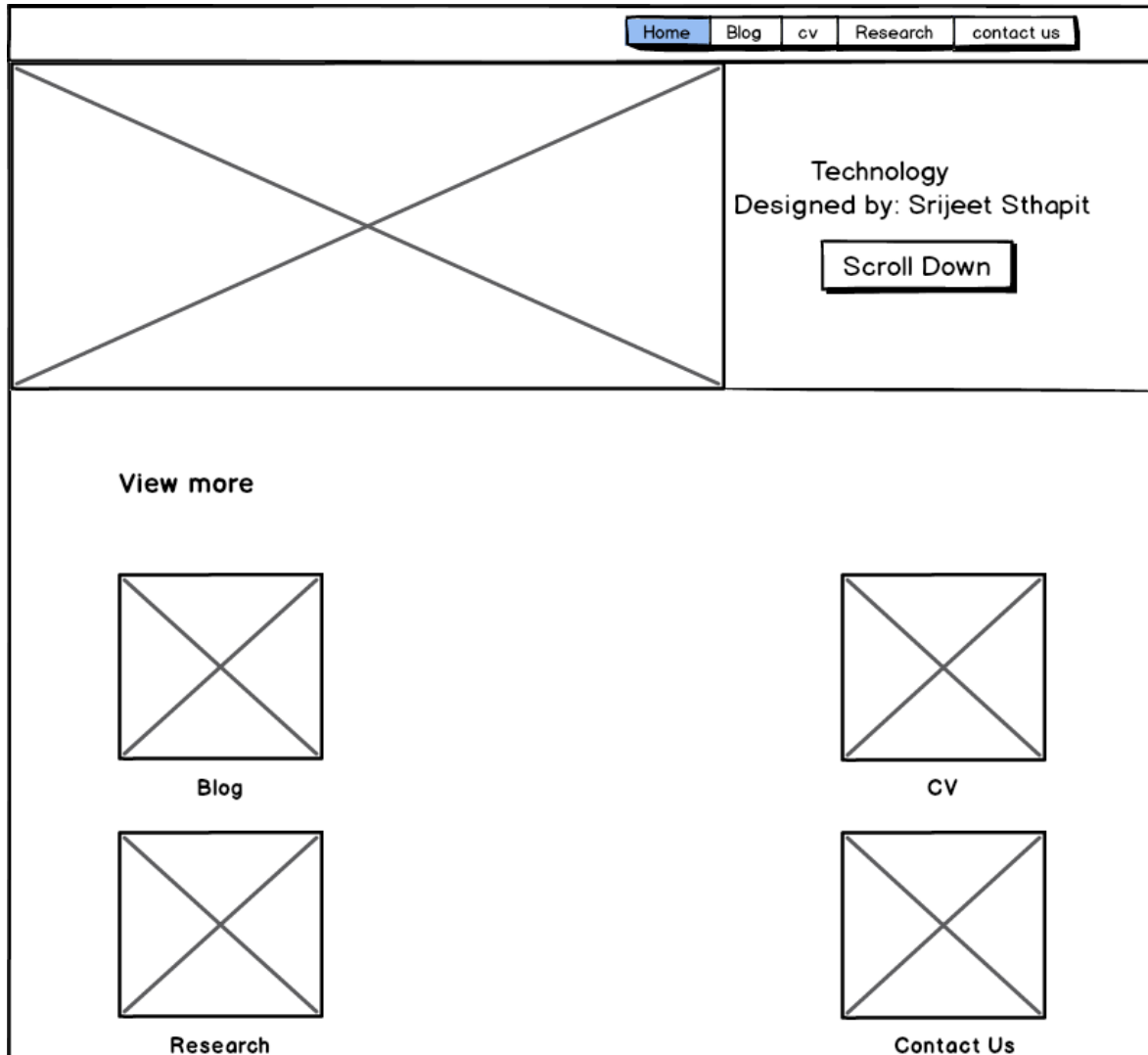


Figure 2.1. 1 : Wireframe 1 of Home Page

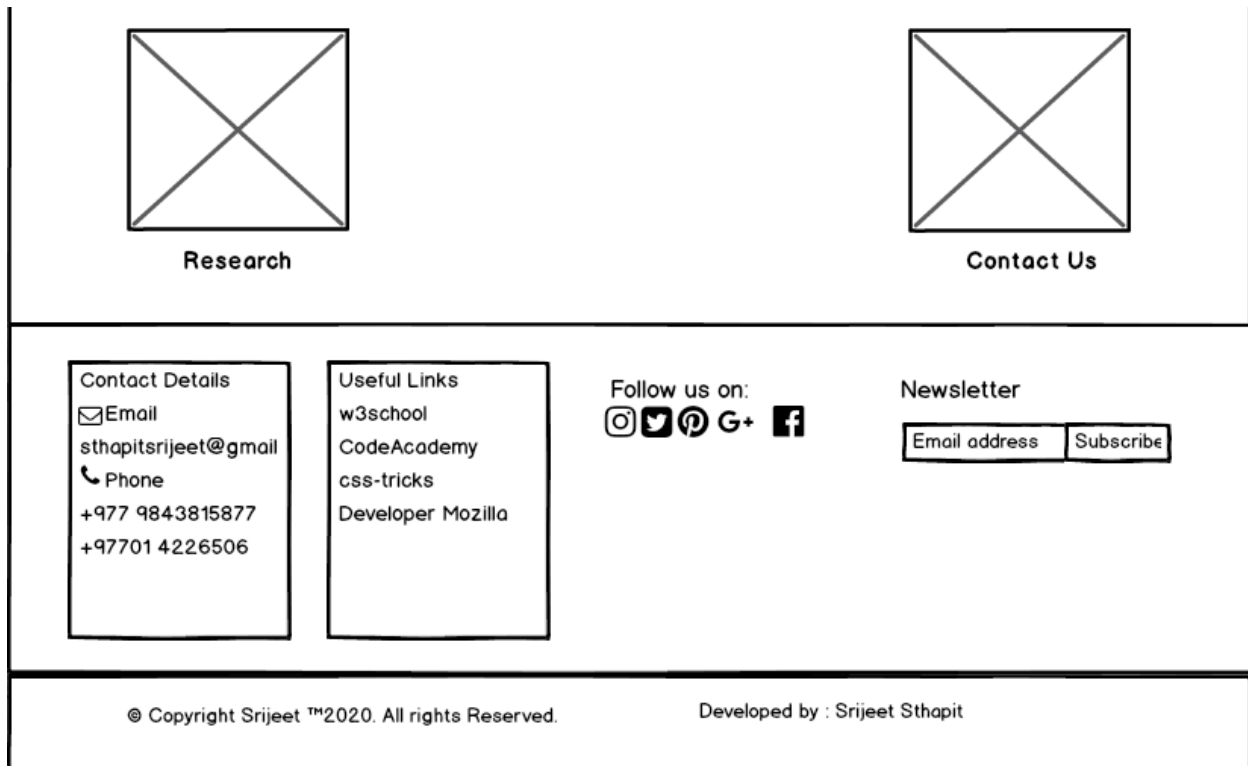


Figure 2.1. 2 : Wireframe 2 of Home Page

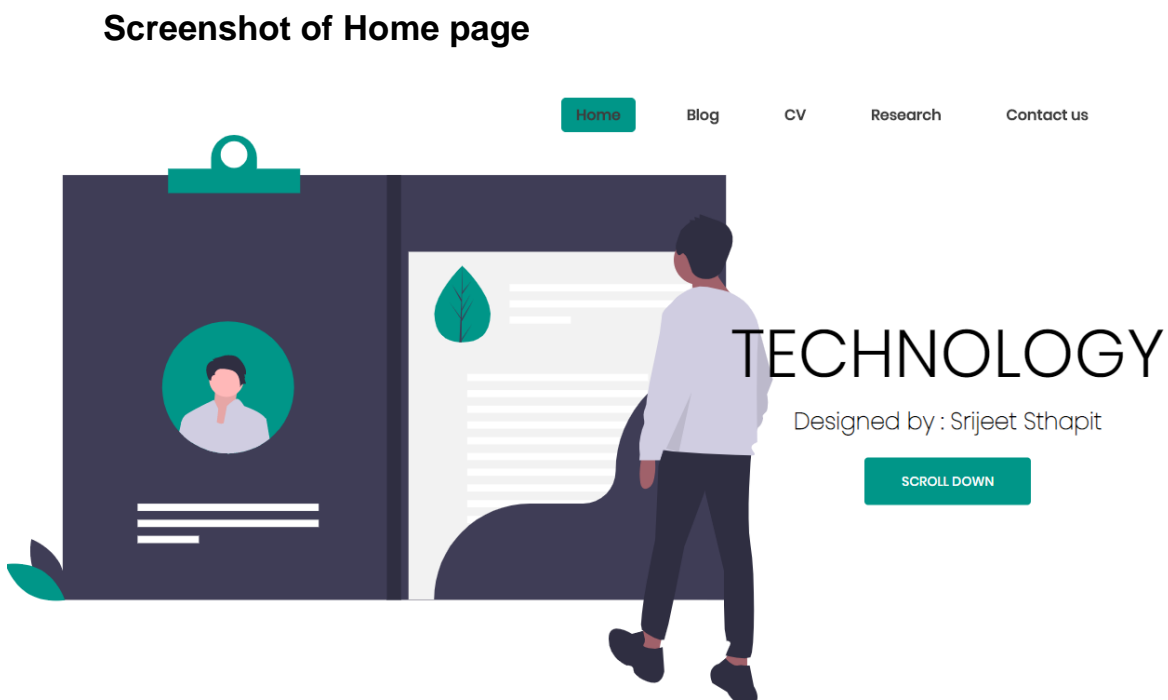


Figure 2.1. 3: Screenshot 1 of Homepage



Figure 2.1. 4: Screenshot 2 of Homepage

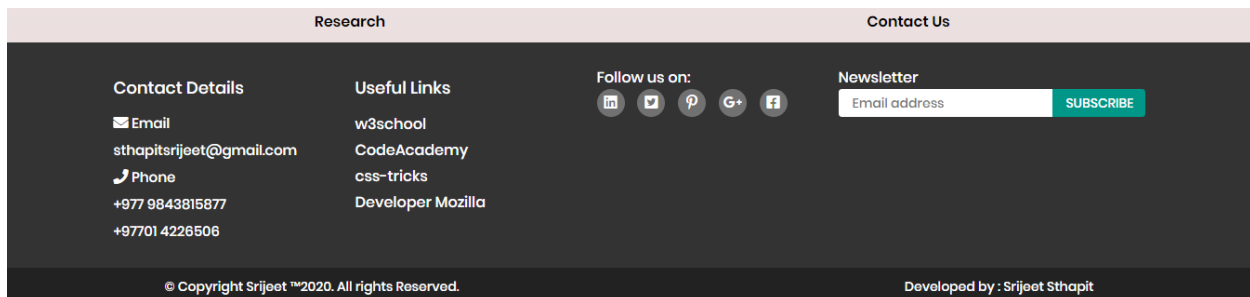


Figure 2.1. 5: Screenshot 3 of Homepage

Page 2: Blog

Explanation of Content of Blog

The navigation bar, image, button and text below the navigation bar and footer of this page is the same as of home.

The main contents of this page is the impact of technology. This content has been divided into different paragraphs: Introduction, Positive Impacts, Negative Impacts and Verdict. Introduction gives a brief intro to technology. Positive impacts lists and explains the positive impacts. Similarly, Negative impacts lists and explains the negative impacts. Finally the verdict section is the conclusion and thought of the writer on the impacts of technology.

Basically each paragraphs are written in different div with different id. Each of these div have the text and image aligned using flex properties. The buttons for each topic has been written at the start of main content with custom css style. Initially the contents of introduction are displayed but a function is triggered when a button is clicked. This function with the help of two parameters changes the display properties and adds or replaces active class. So if a user presses the verdict button contents of verdict will be displayed.

Screenshot of wireframes of Blog

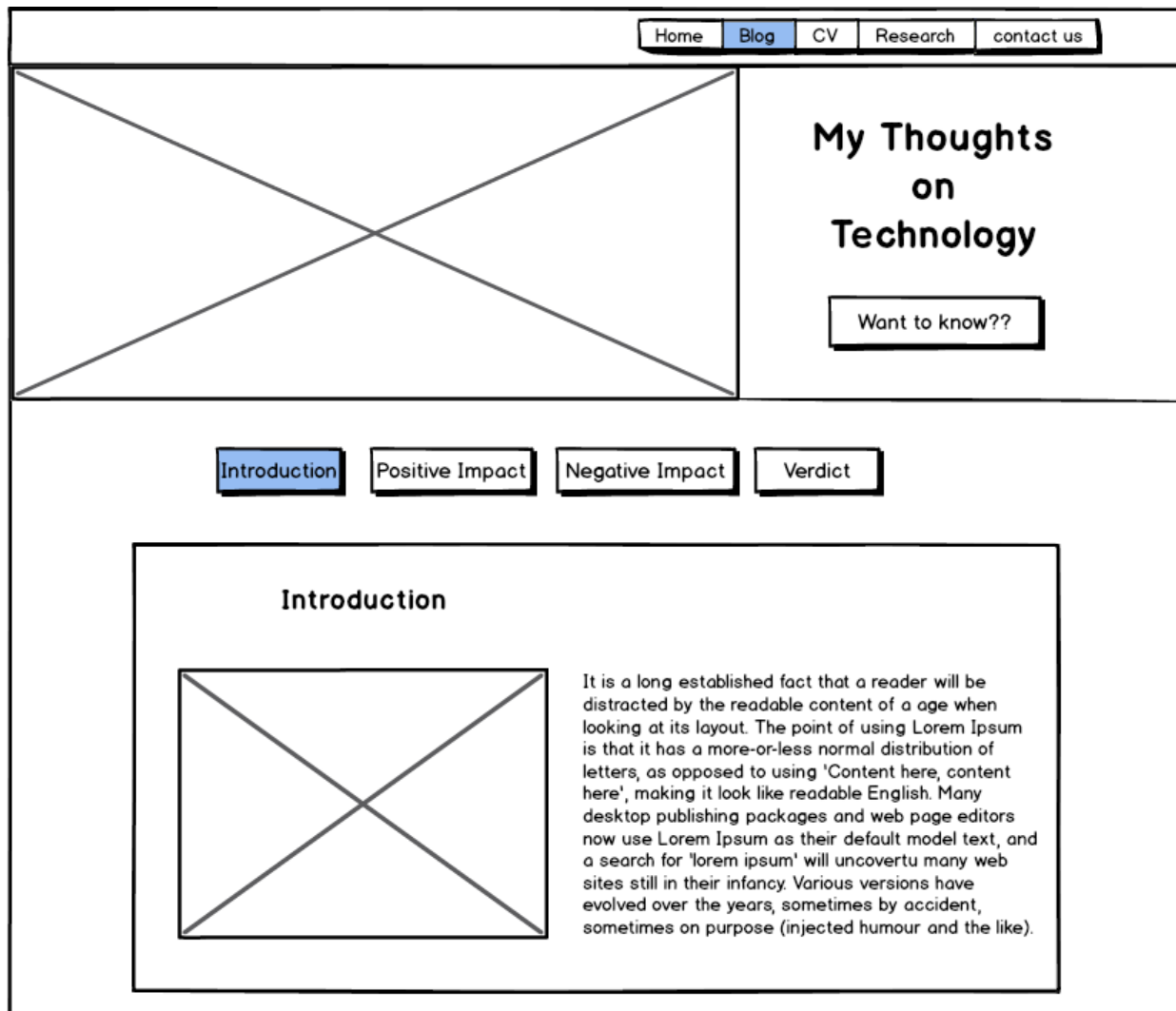


Figure 2.2. 1: Wireframe 1 of Blog Page

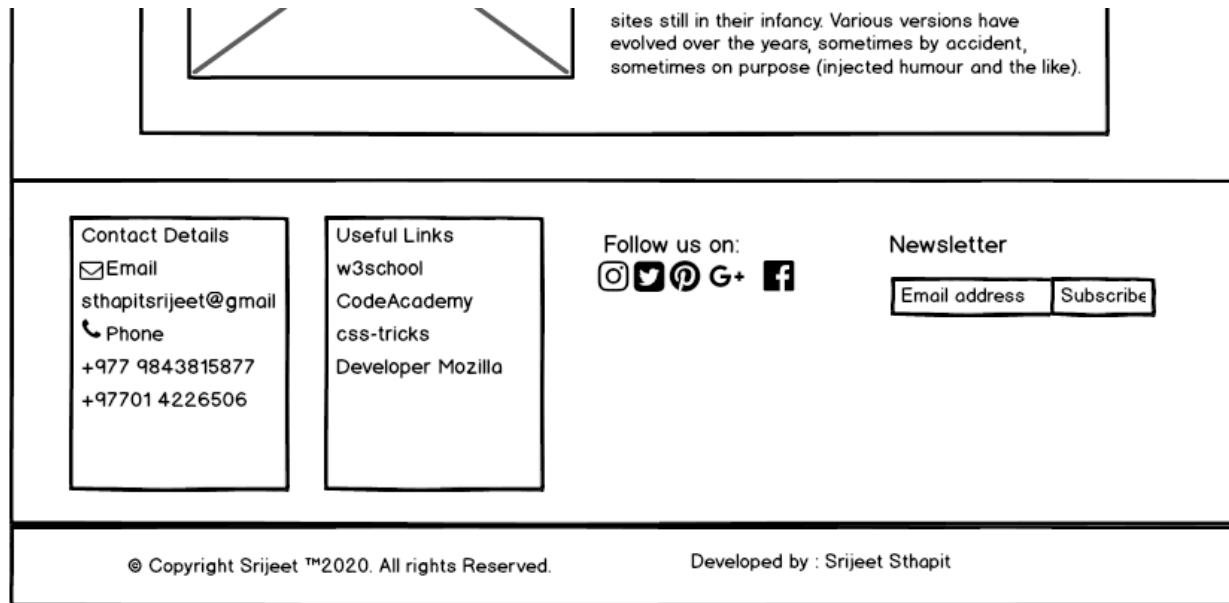


Figure 2.2. 2: Wireframe 2 of Blog Page

Screenshot of Blog Page

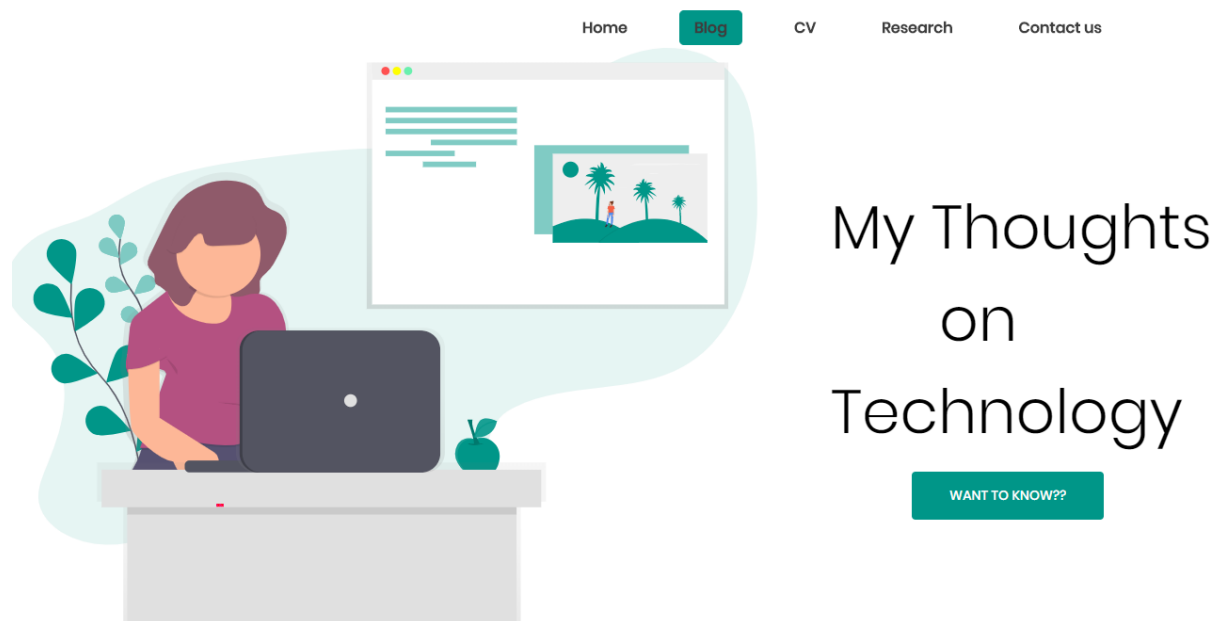


Figure 2.2. 3: Screenshot 1 of Blog Page

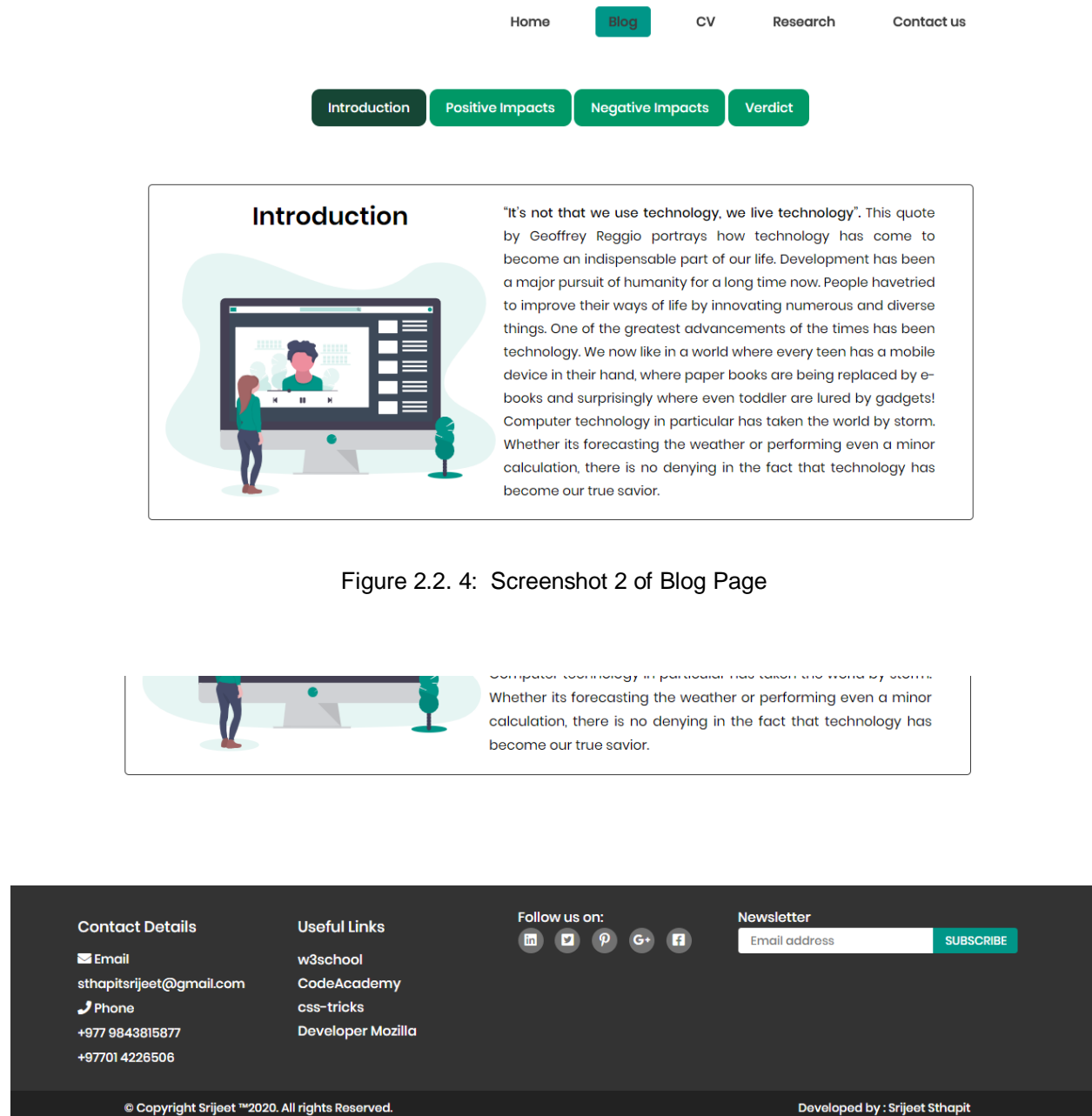


Figure 2.2. 5: Screenshot 3 of Blog Page

Page 3: CV

Explanation of Content of CV

The navigation bar, image, button and text below the navigation bar and footer of this page is the same as of home.

The main contents of this page is a CV of the creator. This content has been divided into different paragraphs: Education, Technical Skills, Soft Skills, Certificates and Hobbies. Education contains the information of the highest level of education achieved. Technical skills contains the list of familiar languages. Soft Skills has the list of social skills. Certificates section lists the name of certificates and hobbies are mentioned in hobbies section.

Basically each paragraphs are written in different with div different id. The div displayed initially is related to education. With the use of flex and table, the image and contents have been arranged next to each other. However the remaining divs have a different styling. They have two images at each side of the text. It has also been achieved with the help of flex properties. The buttons for each topic has been written at the start of main content with custom css style. Initially the contents of education are displayed but a function is triggered when a button is clicked. This function with the help of two parameters changes the display properties and adds or replaces active class. So if a user presses the verdict button contents of verdict will be displayed.

Screenshot of wireframes of CV

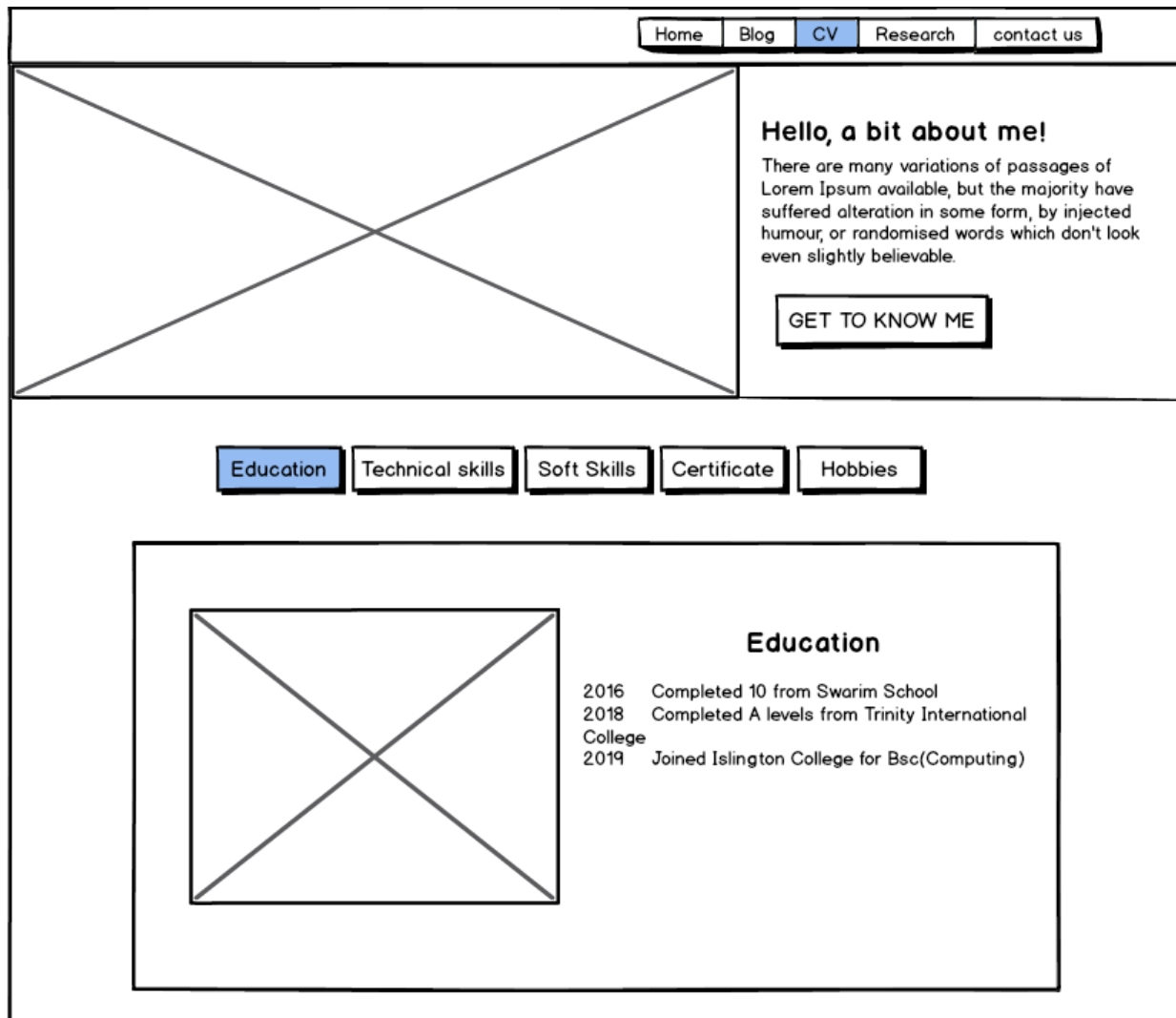


Figure 2.3. 1 : Wireframe 1 of CV page

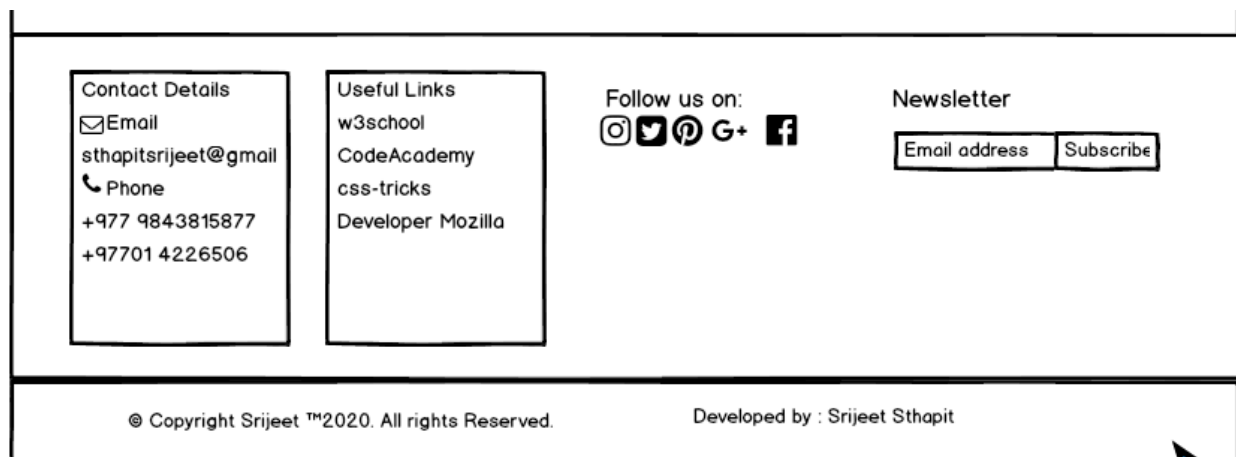


Figure 2.3. 2: Wireframe 2 of CV page

Screenshot of CV Page

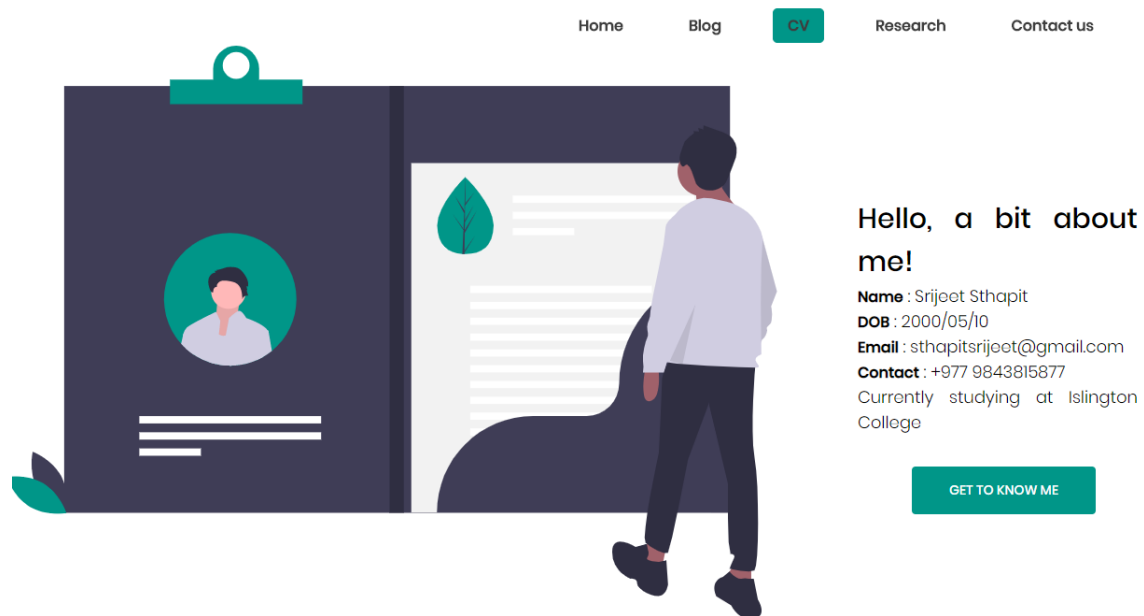


Figure 2.3. 3: Screenshot 1 of CV page

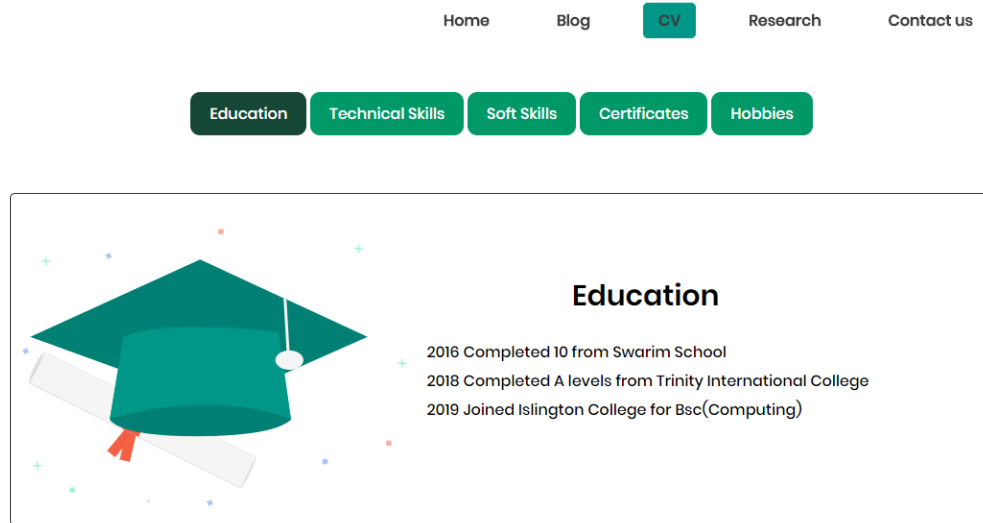


Figure 2.3. 4: Screenshot 2 of CV page

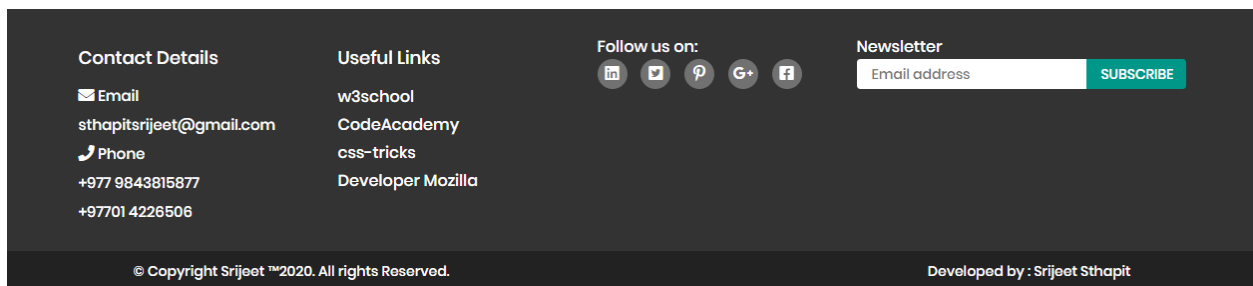


Figure 2.3. 5: Screenshot 3 of CV page

Page 4: Research

Explanation of Content of Research

The navigation bar, image, button and text below the navigation bar and footer of this page is the same as of home.

The main contents of this page is a comparison of their web components with that of other websites. There are 5 researches displayed in this page: Navigation bar, Footer, Dynamic Div, Contact page and Landing page. Navigation bar compared the navigation bar used in this website with that of search engine general. Similarly Footer compares its footer with that of Level ten website. Dynamic div compares its dynamically changing div with that of w3schools. Contact page relates the similarity and dissimilarity with that of Marvel website. Finally, landing page compares the differences of its website with that of marvel website as well. Each of these researches includes screen shot of two websites along with external linking to the outer website.

Basically each researches are written in different with div different id. The div displayed initially is related to Navigation bar. With the use of flex and the image have been arranged next to each other. The buttons for each research has been written at the start of main content with custom css style. Initially the contents of research 1(navigation bar) are displayed but a function is triggered when a button is clicked. This function with the help of two parameters changes the display properties and adds or replaces active class. So if a user presses the research2 (footer) button, contents of research2 will be displayed.

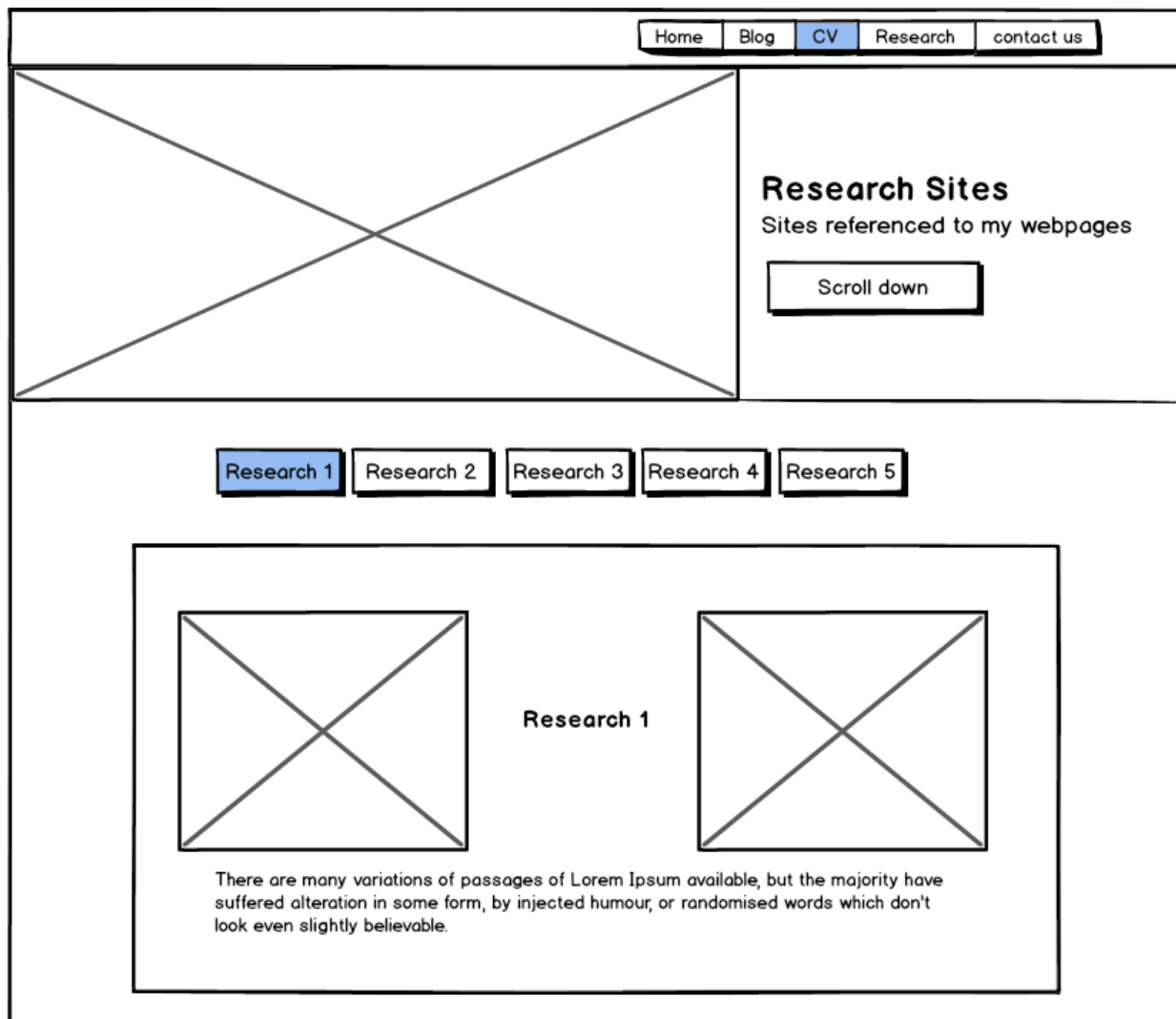
Screenshot of wireframes of Research

Figure 2.4. 1: Wireframe 1 of Research page

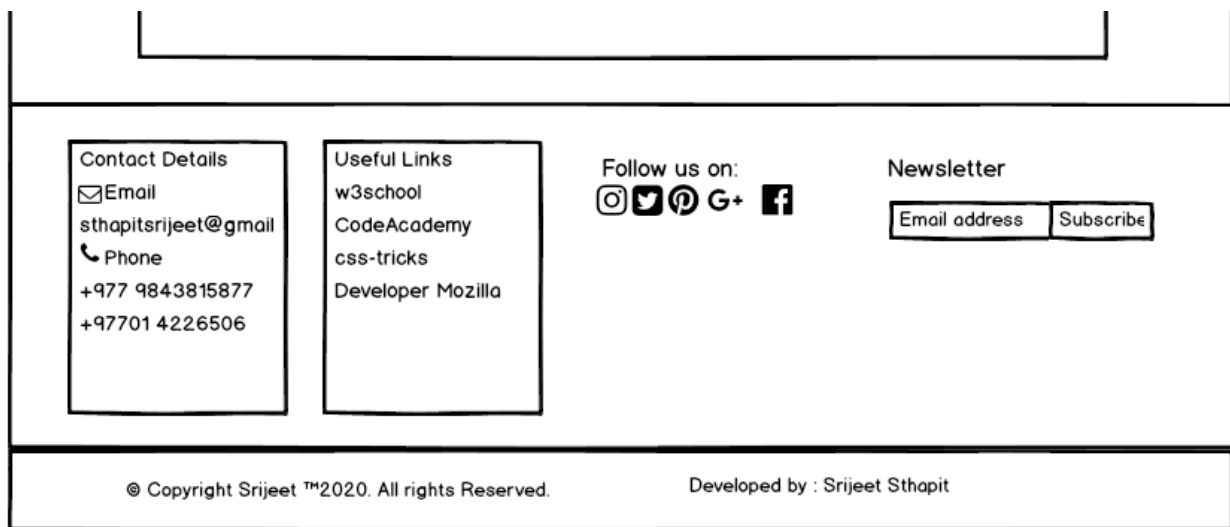


Figure 2.4. 2: Wireframe 2 of Research page

Screenshot of Research Page

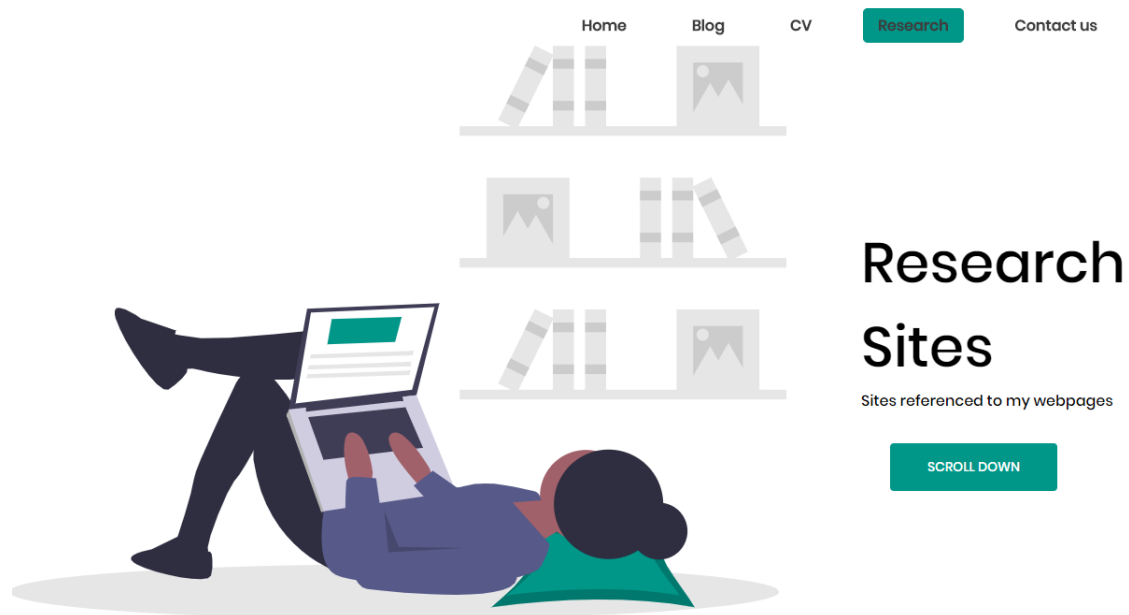


Figure 2.4. 3: Screenshot 1 of Research Page

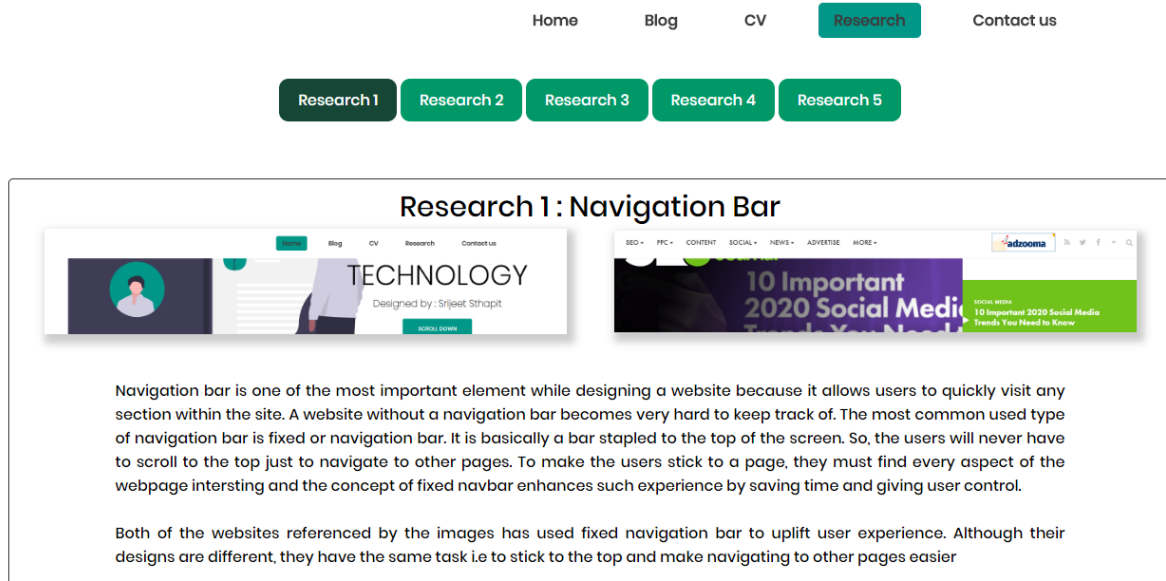


Figure 2.4. 4: Screenshot 2 of Research Page

Both of the websites referenced by the images has used fixed navigation bar to uplift user experience. Although their designs are different, they have the same task i.e to stick to the top and make navigating to other pages easier

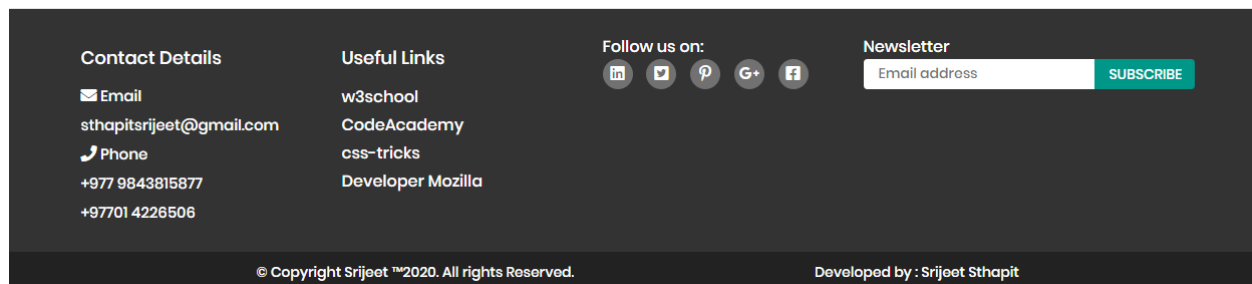


Figure 2.4. 5: Screenshot 3 of Research Page

Page 5: Contact

Explanation of Content of Contact

The navigation bar and footer of this page is the same as of home page but this page has no banner.

The main section contains a form and an image. The image and form are aligned using grid properties. The form accepts values of name, email address and thoughts from user. Once the submit button is pressed a function is triggered and alert message is generated if the input fields are input. A message is also displayed next to the input field which vanished when a user types any letter.

Screenshot of wireframes of Contact

The wireframe illustrates a contact page layout. At the top, a navigation bar includes links for Home, Blog, cv, Research, and contact us. The main content area features a large placeholder image on the left and a 'Thank You' message on the right. Below the message are three input fields: Name, Email Address, and a text area for 'Share Your thoughts', followed by a Submit button. The footer is divided into four sections: Contact Details (Email: sthapitsrijeet@gmail.com, Phone: +977 9843815877, +97701 4226506), Useful Links (w3school, CodeAcademy, css-tricks, Developer Mozilla), Follow us on (social media icons), and Newsletter (Email address, Subscribe).

Home Blog cv Research contact us

Thank You

Name

Email Address

Share Your thoughts

Submit

Contact Details
Email
sthapitsrijeet@gmail
Phone
+977 9843815877
+97701 4226506

Useful Links
w3school
CodeAcademy
css-tricks
Developer Mozilla

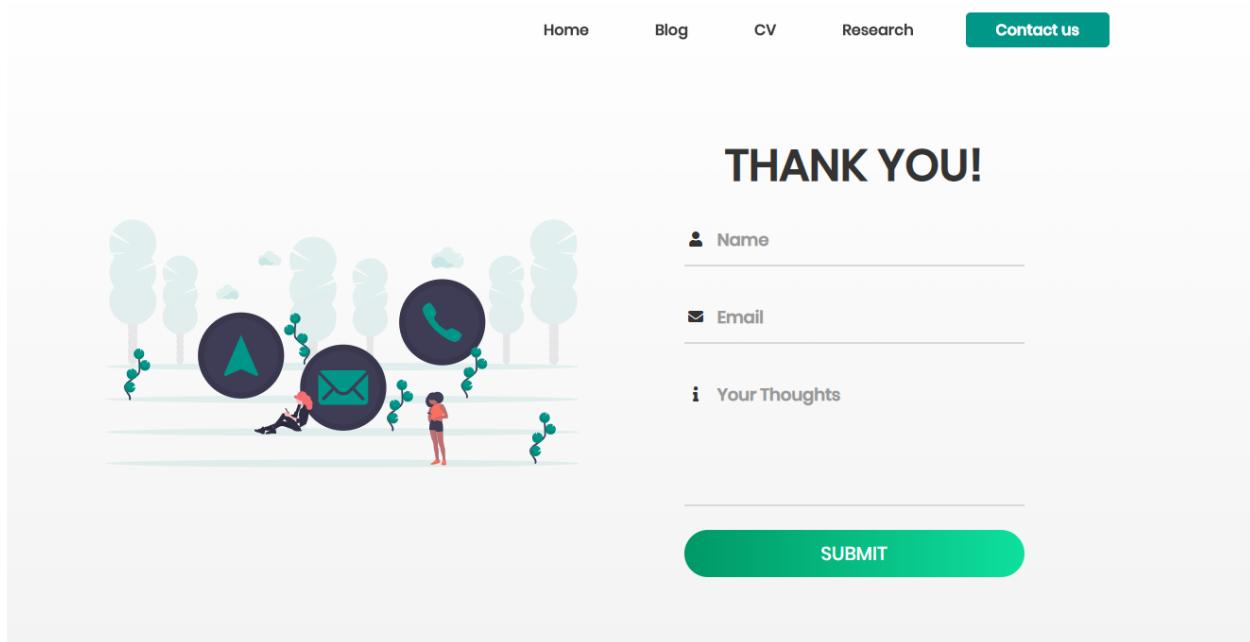
Follow us on:
Instagram Twitter Pinterest Google+ Facebook

Newsletter
Email address Subscribe

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Figure 2.5. 1: Wireframe of Contact Page

Screenshot of Contact Page



Home Blog CV Research **Contact us**

THANK YOU!



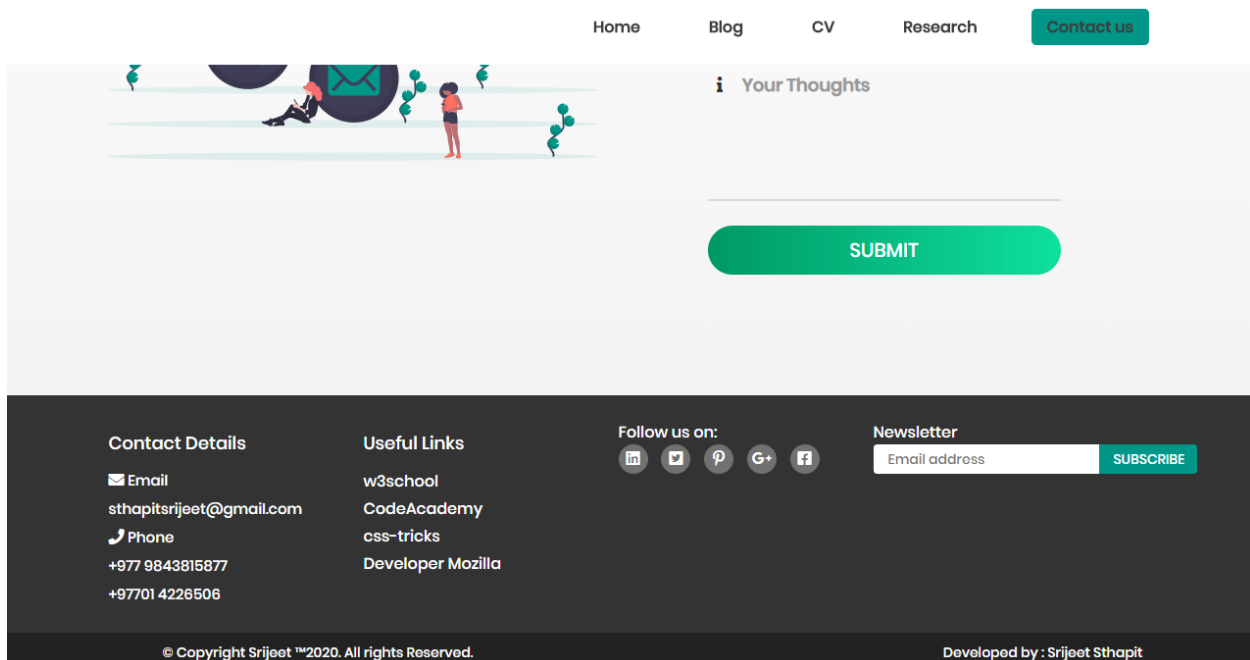
Name

Email

Your Thoughts

SUBMIT



Figure 2.5. 2: Screenshot 1 of Contact Page








Home Blog CV Research **Contact us**

Your Thoughts

SUBMIT

Contact Details
 Email
sthapitsrijeet@gmail.com
 Phone
+977 9843815877
+97701 4226506

Useful Links
w3school
CodeAcademy
css-tricks
Developer Mozilla

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Figure 2.5. 3: Screenshot 2 of Contact Page

Testing

Test 1: Form Validation

Objective	To check if the form validation is working.
Action	<p>Open homepage of the website and navigate to contact page using navigation bar.</p> <ol style="list-style-type: none">1. Submit the form with blank values.2. Now enter all the values in the input field.3. Again submit the form.
Expected Result	<ol style="list-style-type: none">1. Alert box must be displayed at the top along with error message next to the input fields.2. As soon as a letter is typed, the error message must vanish.3. Alert box with Thank you message is displayed.
Actual Result	<ol style="list-style-type: none">1. Alert box along with error message is displayed.2. The error message vanished as soon as a letter is typed.3. Alert box with thank you message pops up and the form clears up.
Conclusion	Test Successful

Table 3. 1: Test 1 - Form Validation

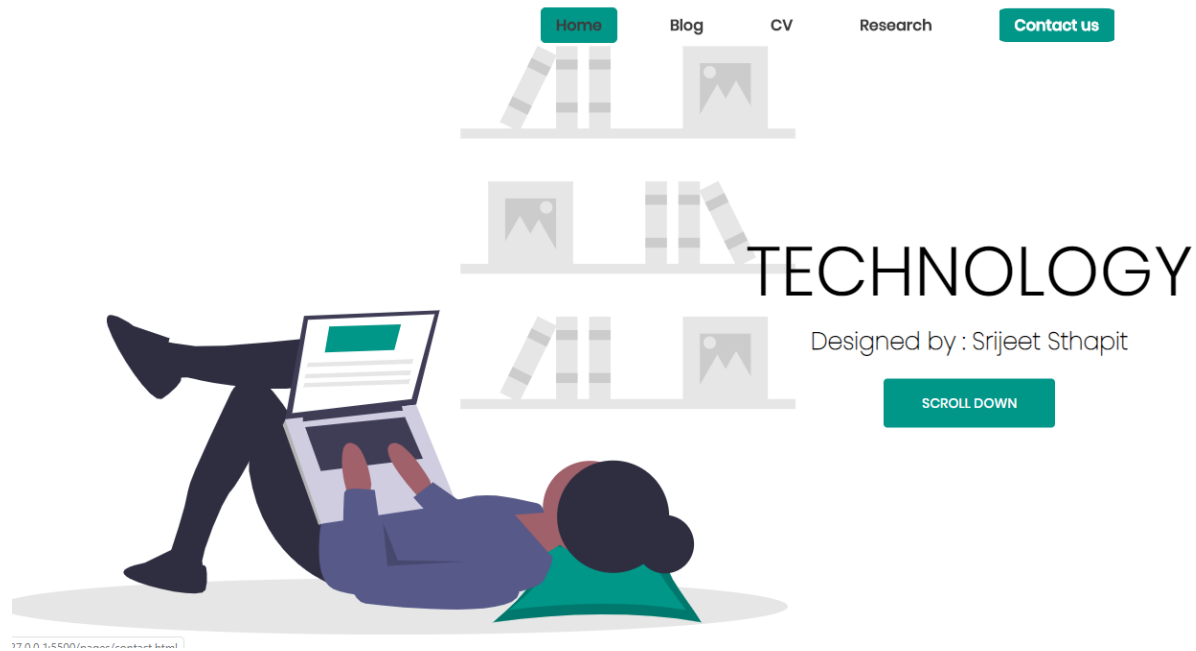


Figure 3.1. 1: Navigating to contact page from navigation bat

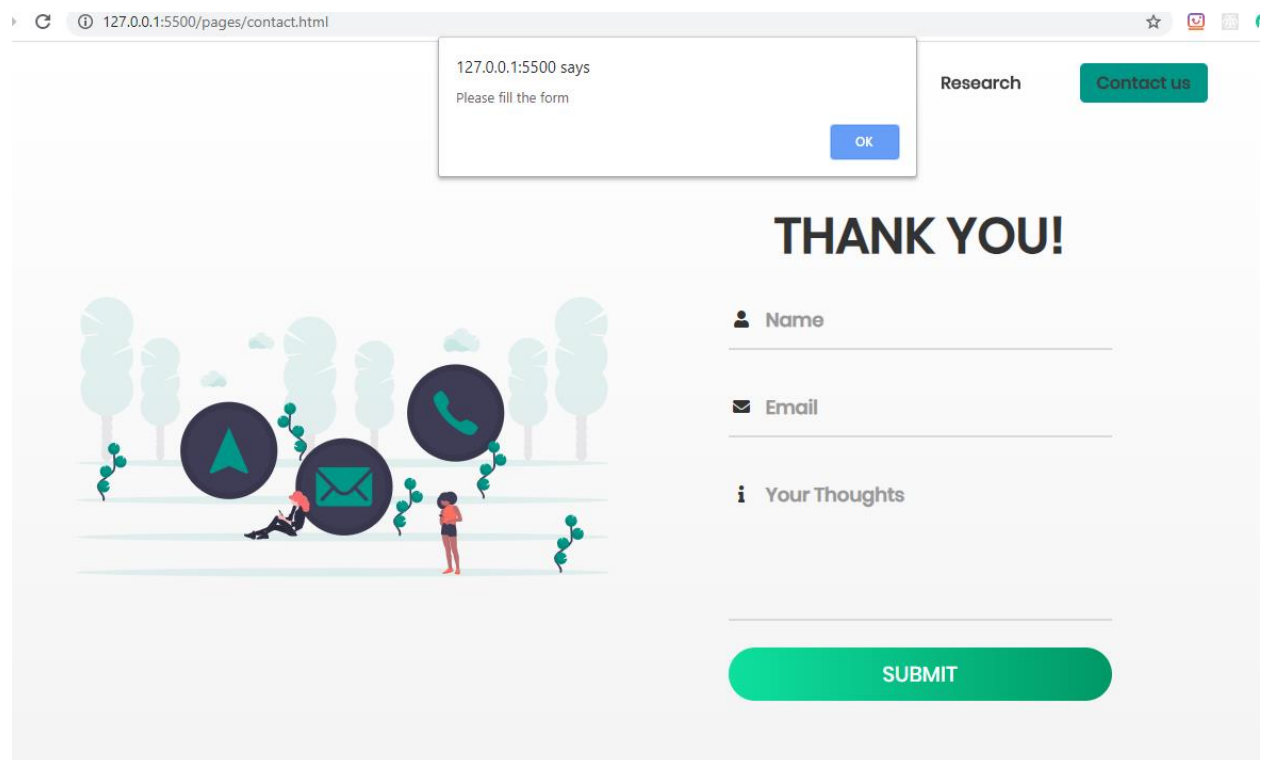





Figure 3.1. 2: Submitting empty form


Home Blog CV Research [Contact us](#)



THANK YOU!

 Name Enter your name


 Email Enter your email

 Your Thoughts What are your thoughts


[SUBMIT](#)


Figure 3.1. 3: Error messages are generated


Home Blog CV Research [Contact us](#)



THANK YOU!

 Name S

 Email sthapitsrijeet@gmail.com

 Your Thoughts Hello World..

[SUBMIT](#)

Figure 3.1. 4: Error message disappears when value is input

127.0.0.1:5500/pages/contact.html

127.0.0.1:5500 says
Thanks for your response

Research [Contact us](#)

THANK YOU!

Name
s

Email
sthapitsrijeet@gmail.com

Your Thoughts
i Hello World..

SUBMIT




Figure 3.1. 5: Submitting filled form

Home Blog CV Research [Contact us](#)

THANK YOU!

Name

Email

Your Thoughts

SUBMIT




Figure 3.1. 6: Page refreshes after form is submitted

Test 2: Image Slider

Objective	To check if the image slider is working.
Action	<ol style="list-style-type: none">1. Open the home page of the website.2. Take a screenshot every 3 seconds.
Expected Result	Image must change every 3 seconds in the home page.
Actual Result	Image is changed every 3 seconds.
Conclusion	Test Successful

Table 3. 2: Test 2 - Image Slider



Figure 3.2. 1: Screenshot 1 of Home Page



Figure 3.2. 2: Screenshot 2 of Home Page

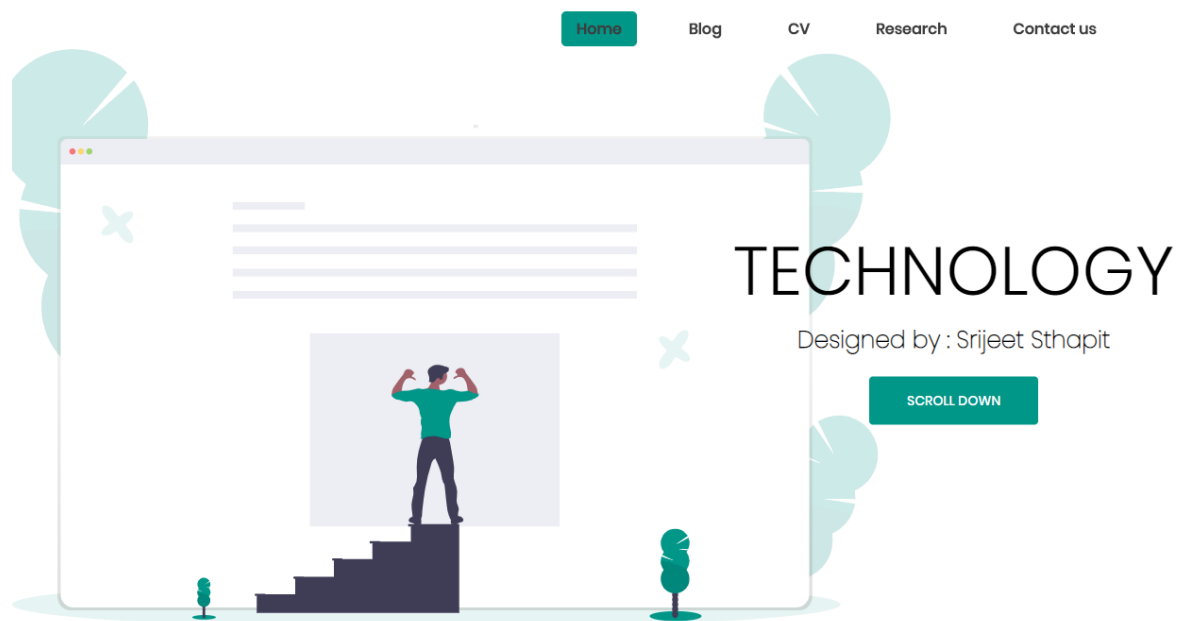


Figure 3.2. 3: Screenshot 3 of Home Page

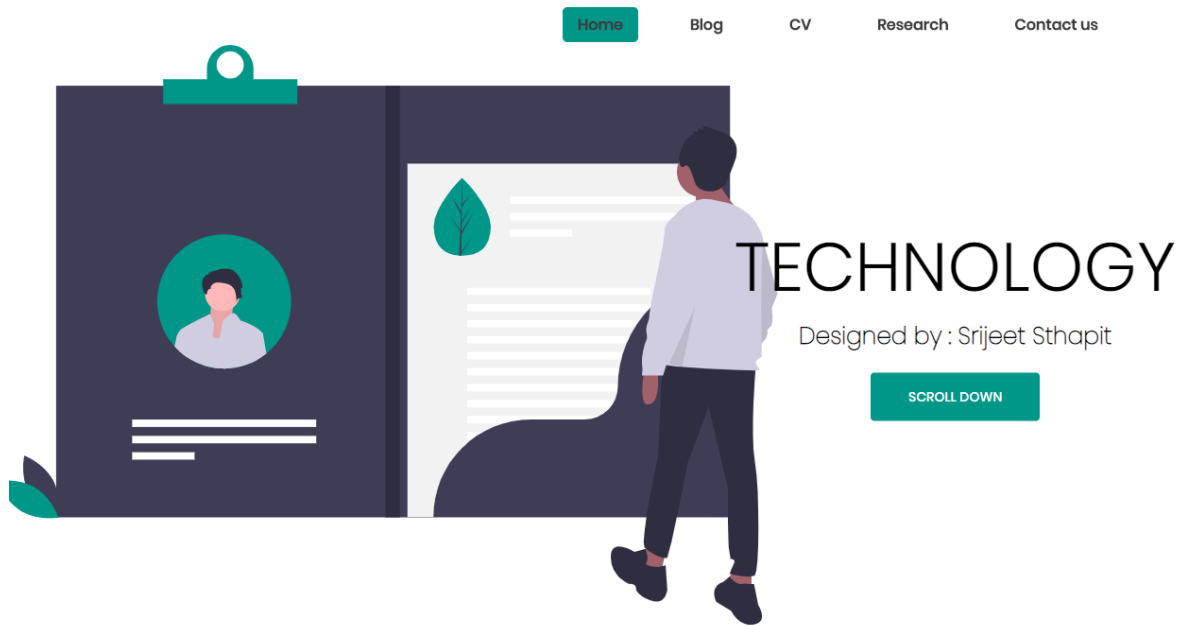


Figure 3.2. 4: Screenshot 4 of Home Page

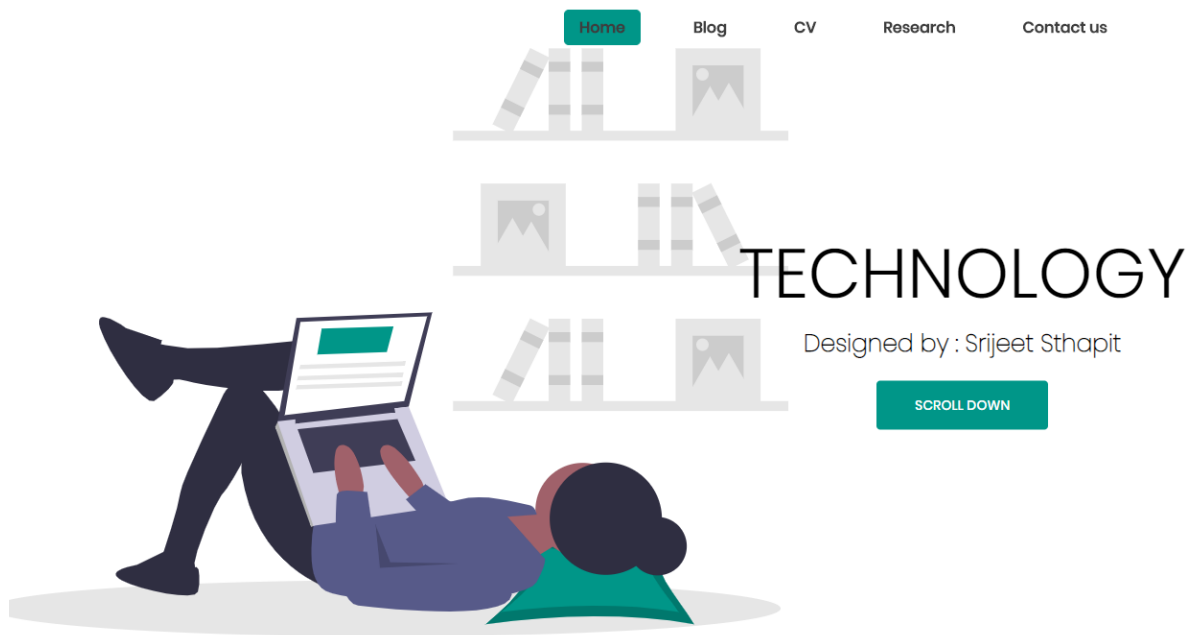


Figure 3.2. 5: Screenshot 5 of Home Page

Test 3: Dynamic Change

Objective	To check if the content is being changed dynamically.
Action	<ol style="list-style-type: none">1. Open the homepage of website.2. Navigate to the CV page using the navigation bar.3. Scroll down or click the button labelled “Want to know?”. The content of education is displayed.4. Click on Technical Skills button.
Expected Result	Change of content from education to Technical Skills
Actual Result	Content of Technical Skills is displayed.
Conclusion	Test Successful

Table 3. 3: Test 3 - Dynamic Change



Figure 3.3. 1: Navigating to CV page with navigation bar

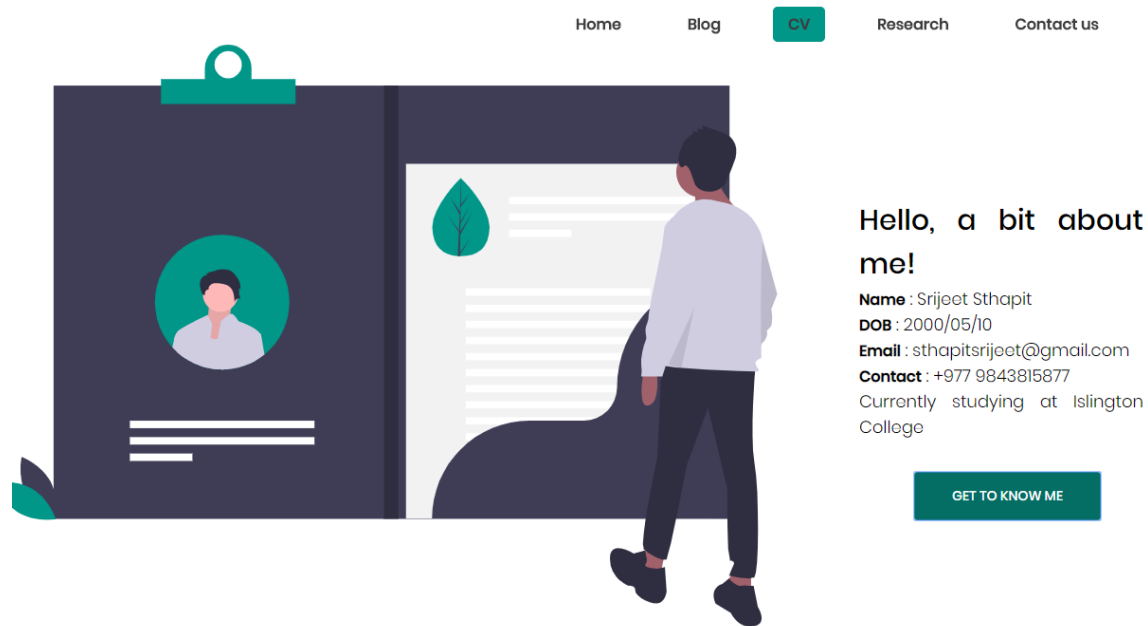


Figure 3.3. 2: Clicking the button to scroll down

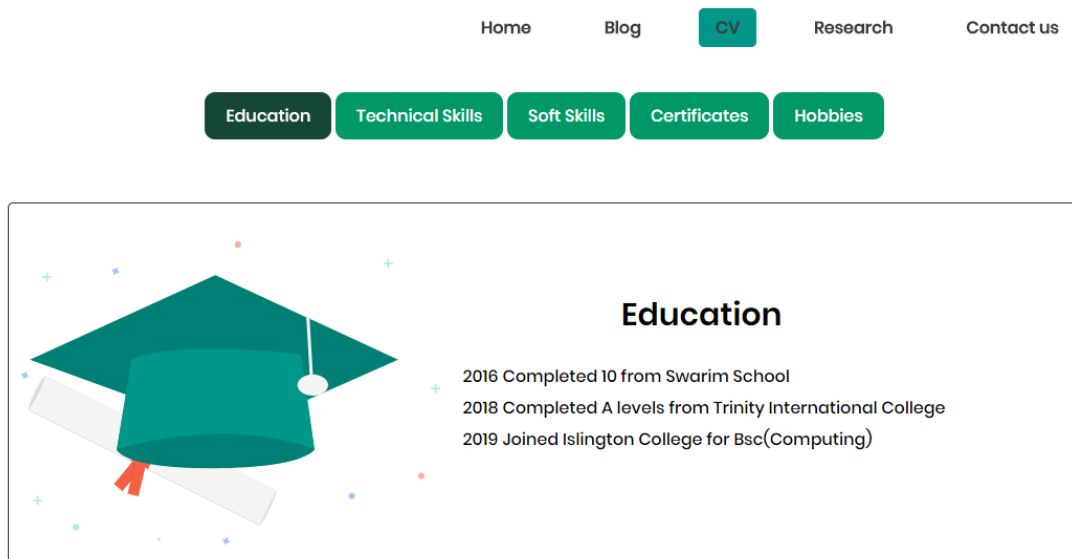


Figure 3.3. 3: Education content displayed initially

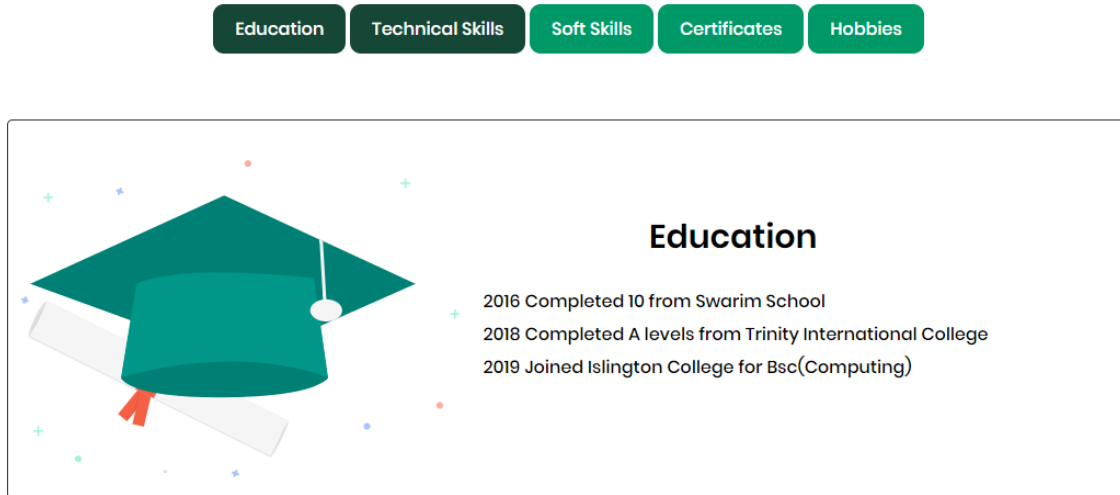


Figure 3.3. 4: Clicking of Technical Skills button

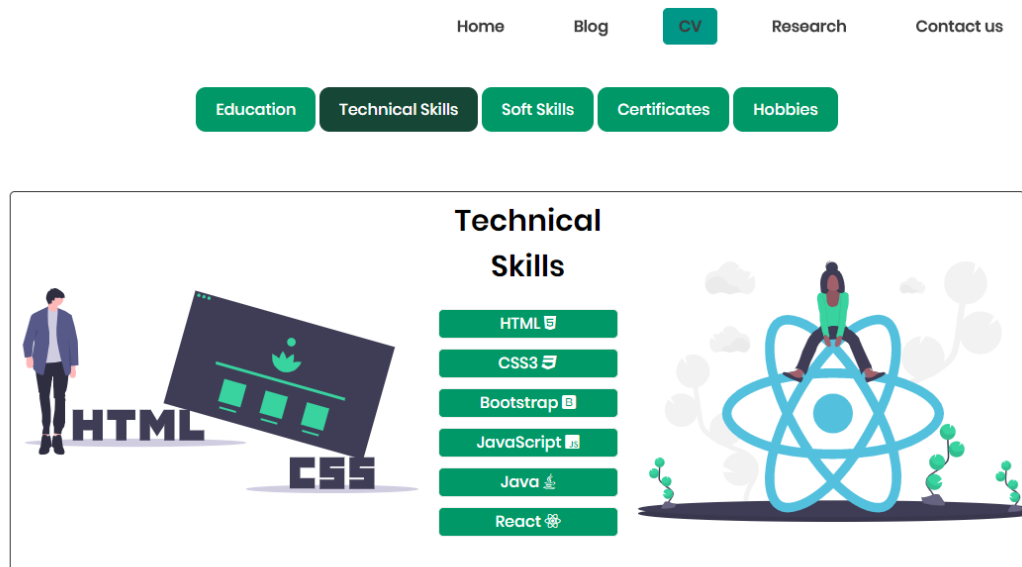


Figure 3.3. 5: Content changed to Technical skills

Test 4: Hover Effects

Objective	To check if the hover on navigation bar and images are working
Action	<ol style="list-style-type: none">1. Open the homepage of website.2. Hover the contents on navigation bar.3. Hover the images on the home page as well.
Expected Result	Color and padding changes if the blog is hovered. The scale of image increases.
Actual Result	Color and padding changes. Scale of image increases.
Conclusion	Test Successful

Table 3. 4: Test 4 - Hover Effects

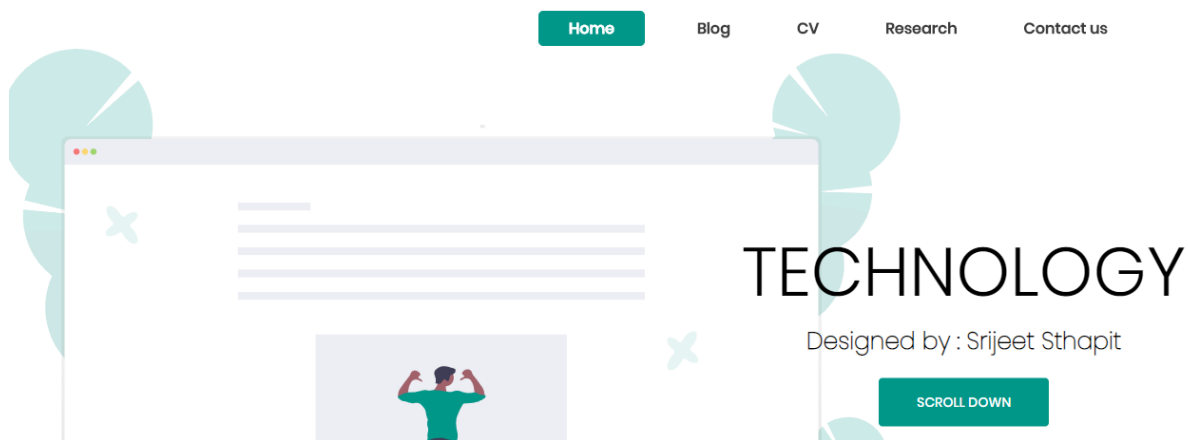


Figure 3.4. 1: Initial view of navigation bar



Figure 3.4. 2: Hover effect in Contact Us

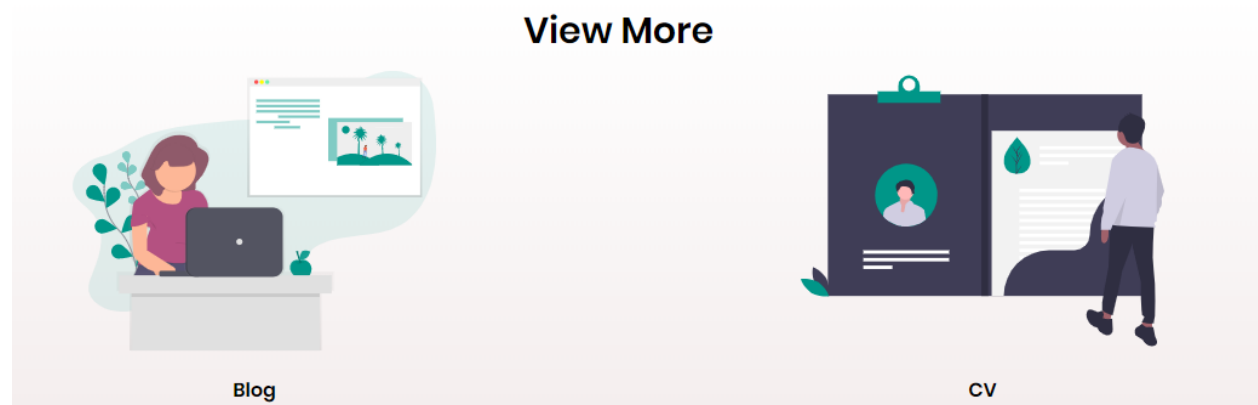


Figure 3.4. 3: Initial view of Image

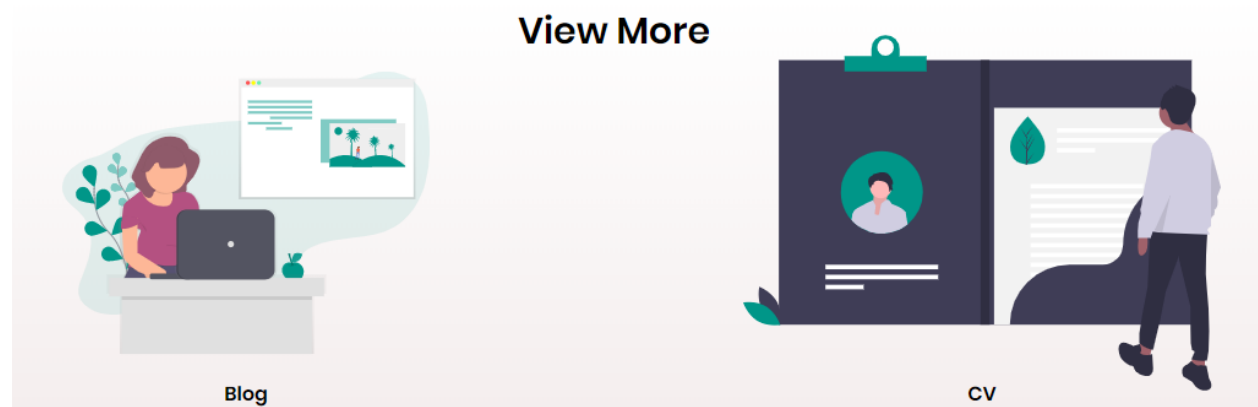


Figure 3.4. 4: Hover effect in right image

Test 5: Internal and External Link

Objective	To check if the internal and external link is working
Action	<p>Open the homepage of website.</p> <ol style="list-style-type: none">1. Click on the Research from navigation bar.2. Click on the button labelled “Scroll Down”3. Scroll down and click on the right image of research 1.
Expected Result	<ol style="list-style-type: none">1. Page must scrolls to the lower div.2. Page must changes to Research.3. A new tab must open with the website of Search Engine General.
Actual Result	<p>Page is scrolled to lower div.</p> <p>Page is changed to Research.</p> <p>Search engine General website is opened in new tab.</p>
Conclusion	Test Successful

Table 3. 5: Test 5 - Internal and External Link



Figure 3.5. 1: Initial view of Home Page

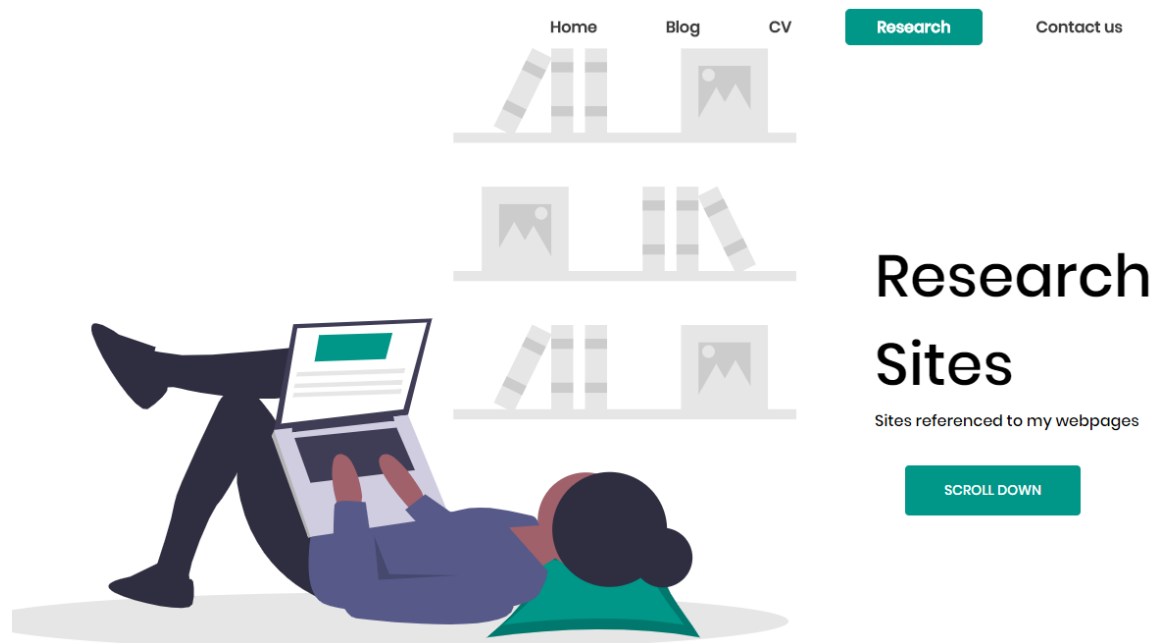


Figure 3.5. 2: Navigated to Research page

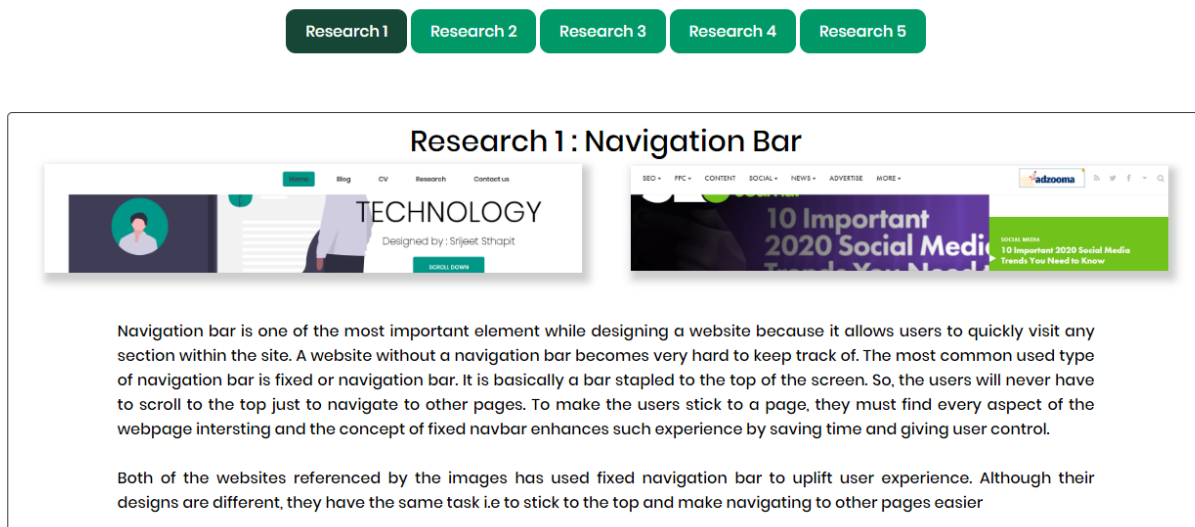


Figure 3.5. 3: View after pressing Scroll Down button

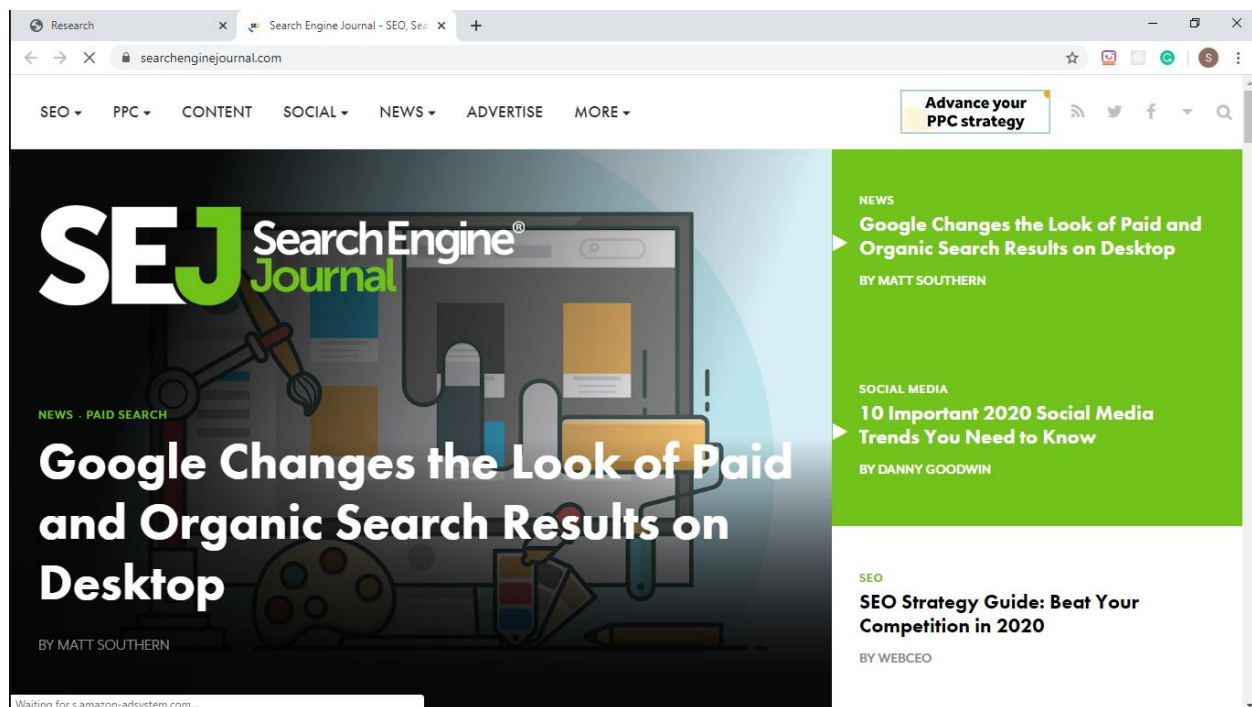


Figure 3.5. 4: Website of the image in new t

Conclusion

The main aim of this coursework is to familiarize us with web technologies such as HTML, CSS and JavaScript. A portfolio website with 5 pages was created with different contents. CV had the personal details of creator, blog with the impacts of technology in their life and research with comparison of different web components with other websites

Doing this coursework has made us realize how a website works. Working with navigation, hover, form validation, image slider has given us a clearer concept of how a developer develops a website. Research on many websites were done in order to bring a productive and attractive website. Help from sources such as w3schools, MDN Web Docs were taken as well.

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