

PROFESSIONAL TRAINING REPORT
at
Sathyabama Institute of Science and Technology
(Deemed to be University)

Submitted in partial fulfillment of the requirements for the award
of Bachelor of Technology Degree in Information Technology

By
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SCHOOL OF COMPUTING

BONAFIDE CERTIFICATE

This is to certify that this Project Report is the Bonafide work of **Piyush Sinha** who carried out the project entitled "**Email validator**" under our supervision from August 2020 to January 2021.

Internal Guide

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Submitted for Viva voce Examination held on _____

Internal Examiner

External Examiner

DECLARATION

I **Piyush Sinha** hereby declare that the Project Report entitled "**Email validator**" done by me under the guidance of **Dr. Gowri**, at Sathyabama Institute of Science and Technology (Deemed to be University), Jeppiaar Nagar, Rajiv Gandhi Salai, Chennai - 600119 is submitted in partial fulfillment of the requirements for the award of Bachelor of Technology degree in Information Technology.

DATE: 21/01/2021

Place: Chennai

SIGNATURE OF THE CANDIDATE

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I am pleased to acknowledge my sincere thanks to Board of management of **SATHYABAMA** for their kind encouragement in doing this project and for completing it successfully. I am grateful to them.

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TRAINING CERTIFICATE



ABSTRACT

In this project, a website has been created which is based on skeletal languages HTML, CSS. It also uses additional libraries of JQuery and the framework Bootstrap. The website is entitled as "EMAIL VALIDATOR". The website checks that the E-mail entered exists on the internet or not. Email Validation is a procedure that verifies if an email address is deliverable and valid. It also confirms if a particular email address exists with a reliable domain such as Gmail or Yahoo. First, you need to enter the Email. EMAIL VALIDATOR will then make some quick checks with the help of 'MailBox Layer' API to determine whether the email address is valid or invalid.

Valid: This means that the email address exists, and it is error free. This verification will be complete to the mailbox level.

Invalid: If an email address is marked as invalid, it contains syntax errors, DNS errors and/or mailbox errors.

The Backend of the website is done in Python using Flask framework. Last but not the least this project is dynamic website. The front end of the web application is made with HTML, and CSS. The programming which is used to connect to the front end of the website is Python using Flask framework.

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CHAPTER 1

INTRODUCTION

1.1 BASICS

A website or web site is a collection of related network web resources, such as web pages, multimedia content, which are typically identified with a common domain name, and published on at least one web server. Notable examples are wikipedia.org, google.com, and amazon.com. Websites can be accessed via a public Internet Protocol (IP) network, such as the Internet, or a private local area network (LAN), by a uniform resource locator (URL) that identifies the site. Websites can have many functions and can be used in various fashions; a website can be a personal website, a corporate website for a company, a government website, an organization website, etc. Websites are typically dedicated to a particular topic or purpose, ranging from entertainment and social networking to providing news and education. All publicly accessible websites collectively constitute the World Wide Web, while private websites, such as a company's website for its employees, are typically part of the intranet. Web pages, which are the building blocks of websites, are documents, typically composed in plain text interspersed with formatting instructions of Hypertext Markup Language (HTML, XHTML). They may incorporate elements from other websites with suitable markup anchors. Web pages are accessed and transported with the Hypertext Transfer Protocol (HTTP), which may optionally employ encryption (HTTP Secure, HTTPS) to provide security and privacy for the user. The user's application, often a web browser, renders the page content according to its HTML markup instructions onto a display terminal.

1.2 COMPONENTS OF WEB DEVELOPMENT

1. Reliable Web Hosting Service :Think of your web host as similar to a landlord who rents you space for a physical store. They provide and maintain the server space where your site files “live” and make it possible for visitors to come by and explore your site.

2. A Content Management System (CMS) :Your content management system works behind the scenes to help you organize and maintain parts of your website like your site pages and meta data, and it makes it easier for visitors to find their way around your site.

3. Analytics Tools : You’ll want to know how people are finding your site, which pages they spend the most time on, and how well different elements of your site convert. Google Analytics is the most popular and easy to use resource, it doesn’t cost anything, and it integrates easily with WordPress and some website builder tools.

4. Mobile Friendly Template and Theme : Your site will need to look great on all kinds of screens: laptops, desktops, tablets, and especially smartphones. Choose a mobile-optimized or responsive design_so your site is fast-loading, easy to read, and easy to navigate on phones, which are the way most web users search now.

5. Media : It’s a rare site that can build an audience on words alone. Our eyes are naturally drawn to images, especially if they move and make noise, and images are a must if you’re selling merchandise online. People will also want to see a photo of you in your about us section.

6. Social Media Links and Integration :You don’t have to be on every platform, but you should link your site’s social media accounts to the site itself.

1.3 WEB DEVELOPER

A web developer is a programmer who specializes in, or is specifically engaged in, the development of World Wide Web applications using a client–server model. The applications typically use HTML, CSS and JavaScript in the client, PHP, ASP.NET (C#) or Java in the server, and http for communications between client and server. A web content management system is often used to develop and maintain web applications. Modern web applications often contain three or more tiers, and depending on the size of the team a developer works on, he or she may specialize in one or more of these tiers - or may take a more interdisciplinary role. A web developer is usually classified as a Front-end web development or a Back-End Web Developer.

1.4 HTML

Hypertext Markup Language (HTML) is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript. Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document. HTML elements are the building blocks of HTML pages. With HTML constructs, images and other objects such as interactive forms may be embedded into the rendered page. HTML provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items. HTML elements are delineated by *tags*, written using angle brackets. Tags such as directly `<img /` and `<input /` introduce content into the page. HTML can embed programs `>` `>` written in a scripting language such as JavaScript, which affects the behavior and content of web pages. Inclusion of CSS defines the look and layout of content. The World Wide Web Consortium (W3C), former maintainer of the HTML and current maintainer of the CSS

standards, has encouraged the use of CSS over explicit presentational HTML since 1997.

(Hypertext Markup Language)	
HTML 	
Filename extension	.html .htm
Internet media type	text/html
Type code	TEXT
Developed by	<u>WHATWG</u>
Initial release	1993; 26 years ago
Type of format	Document file format
Extended from	SGML
Extended to	XHTML
Standards	HTML Living Standard
Open format?	Yes

Fig 1.1 HTML

1.5 BOOTSTRAP (front-end frame work)

Bootstrap

	
Original author(s)	Mark Otto, Jacob Thornton
Developer(s)	Bootstrap Core Team
Initial release	August 19, 2011; 8 years ago
Stable release	4.3.1 / February 13, 2019; 6 months ago ^[1]
Repository	github.com/twbs/bootstrap
Written in	HTML, CSS, Less (v3), Sass (v4) and JavaScript
Platform	Web platform
License	MIT License (Apache License 2.0 prior to 3.1.0)
Website	getbootstrap.com

Fig 1.2 Bootstrap

Bootstrap is a web framework that focuses on simplifying the development of informative web pages (as opposed to web apps). The primary purpose of adding it to

a web project is to apply Bootstrap's choices of color, size, font and layout to that project. As such, the primary factor is whether the developers in charge find those

choices to their liking. Once added to a project, Bootstrap provides basic style definitions for all HTML elements. The end result is a uniform appearance for prose, tables and form elements across web browser. In addition, developers can take advantage of CSS classes defined in Bootstrap to further customize the appearance of their contents. For example, Bootstrap has provisioned for light- and dark-colored tables, page headings, more prominent pull quotes, and text with a highlight.

1.6 CSS

Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language like HTML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript. CSS is designed to enable the separation of presentation and content, including layout, colors, and fonts.^[3] This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple web pages to share formatting by specifying the relevant CSS in a separate .Separation of formatting and content also makes it feasible to present the same markup page in different styles for different rendering methods, such as on-screen, in print, by voice (via speech-based browser or screen reader), and on Braille-based tactile devices. CSS also has rules for alternate formatting if the content is accessed on a mobile device.

Cascading Style Sheets (CSS)	
	
Filename extension	.css
Internet media type	text/css
Uniform Type Identifier (UTI)	public.css
Developed by	HåkonWium Lie, Bert Bos <u>World Wide Web Consortium</u>

Fig 1.3 CSS

1.7 METHODS AND FEATURES

1.7.1 Website Builders

Website builders are pre-designed software that provide tools for designing and constructing websites. Like everything in life, the free ones have limited functionality but the paid ones come with advanced features and options.

1. Wix.com: Wix Website Building platform is one of the easiest and simplest ways to create any type of website. There are ready-made templates you can choose as per your requirement and niche. Using Wix.Com, you can create a

business website, blog website, portfolio website and eCommerce store websites in a few hours.

2. WordPress.com: WordPress.com mostly known as a blogging platform that you can use to create a free website. Most bloggers use it to create blogs and it is considered to be the best in terms of SEO and indexing on Search Engines. The functionality and features in the free version are not as helpful as they are in the premium version. But still, it's good for using it as a practice platform for students and beginners.
3. WordPress.org:(Content Management System): WordPress.org is an open source content management software that anyone can use to create SEO friendly, responsive online store, blog, business, and portfolio website. You can use free and premium themes and plugins to create and customize any website.
4. HTML/CSS (Any Programming Language): Almost all the websites on the web are created and designed by using HTML/CSS and programming languages such as PHP, Java, jquery, python, etc. Even the website builder application, wordpress.com, wordpress.org, wix.com, google.com, facebook.com, and amazon.com all these websites are created by using HTML, CSS and various programming languages.

1.8 EVALUATION

This is an enormous federal database that includes more statistics on individual colleges and universities than any other site. The graphics aren't appealing, but you can find lots of valuable information on such things as financial aid, merit aid, costs, majors, freshmen retention rates and much more. One of the coolest features is the College Navigator's ability to share what the average net price will be for students of various incomes. Colleges and universities, however, are a much more lucrative source of college cash consult this website when I want a quick snapshot of a college including such things as its acceptance rate, the school's size and the gender

breakdown of its student to access this wealth of information, type in the name of any school in the College Match search box.

1.9 APPLICATION

1 This is a helpful resource for comparing colleges side by side based on hard data.

2 You can choose a “focus” school and a “comparison” school, and the site will list the data for each school in table format. It's a good way to get an objective viewpoint on what each school is like.

3 Useful for finding reliable data about any college in the country.

4 Comparing schools, calculating admissions chances, calculating financial aid, and just figuring out if a school is a good match for you in general

5 You can fill out your preferences in over 20 different categories

6 It has a modern design and includes tons of reviews in written and video format from students at the colleges.

1.10 NEED FOR WEB DEVELOPMENT

1 HTML/CSS :Hyper Text Markup Language (HTML) is the standard markup language used to create web pagesHTML elements are the building blocks of HTML pages.With HTML constructs, images and other objects such as interactive forms may be embedded into the rendered page. HTML provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items.

2 JavaScript/jQuery :Where HTML is a markup language and CSS is a style sheet language, JS is the first language I've mentioned that's a bonafide programming language. What's the difference? Where HTML and CSS determine the presentation of a page, JS determines the function.

3 CSS and JavaScript Frameworks: Wait, we already covered CSS and Javascript. We did, but they're both such a big part of front end development that a lot of other skills you'll need are going to build off of them.

4 Testing/Debugging :From a website for your mom's dog walking business to an international site for online banking, bugs are a reality of the development process.

In order to keep things moving you'll need to test your code for bugs along the way, so the ability to test and debug makes the list of essential skills for front end developers.There are a couple of different testing methods for web development.

5 Building and Automation Tools/Web Performance :You might be seeing a pattern that HTML, CSS, and JavaScript are the three primary tools for front end development. Meanwhile, most of the other skills either help make those tools more efficient or help test your site and fix mistakes. The trend continues here with building and automation tools and web performance

CHAPTER 2

AIM AND SCOPE OF THE INVESTIGATION

These days, we just can't live without the internet! We use the internet to access different websites. We access websites for entertainment, social networking, online shopping, education and much more! See, websites are here to stay! Businesses – small, medium and big – are investing on websites to create a strong online presence. This has resulted in numerous jobs and projects for web designers and developers. In short, there are ample job opportunities available out there. You need to have talent and creativity to make it big in this field. Web designing is not just limited to layout and structure though. It also deals with creating a unique brand identity, technical aspects (coding), hosting, performance and optimization.

2.1 SKILLS REQUIRED TO THRIVE IN THIS FIELD

1. Creativity is the core of front-end development.
2. Imagination is also a key factor.
3. Good computer knowledge as many times there is a need to correct some errors.
4. Knowledge about coding languages is vital.
5. Knowledge about relevant software is added value.

2.2 WEBSITE ANALYSIS

1. Competitive Analysis By: Sean Filiatrault INTE 122: Information Design
November 25, 2009

2. Introduction The purpose of this competitive analysis is to compare Capilano University's website to the website's of three other major institutions to gain insight into the web presence of other prominent institutions. The other colleges are Emily Carr University of Art & Design, Langara College, and Vancouver Film School. The reason these three schools were selected was because they are all comparable to Capilano University in either size or program type.

3. Criteria: The analysis will be based on the following five criteria: Page Layout Navigation, Main Navigations, Secondary navigation & drop down menus Content Features, Carousels or primary content, Secondary content , Tertiary and lower level content Interactive Features, Carousels.

2.3 HTML, CSS IN WEBSITE

HTML is the language for describing the structure of Web pages. HTML gives authors the means to:

1. Publish online documents with headings, text, tables, lists, photos, etc.
2. Retrieve online information via hypertext links, at the click of a button.
3. Design forms for conducting transactions with remote services, for use in searching for information, making reservations, ordering products, etc.
4. Include spread-sheets, video clips, sound clips, and other applications directly in their documents.

With HTML, authors describe the structure of pages using *markup*. The *elements* of the language label pieces of content such as "paragraph," "list," "table," and so on

CSS is the language for describing the presentation of Web pages, including colors, layout, and fonts. It allows one to adapt the presentation to different types of

devices, such as large screens, small screens, or printers. CSS is independent of HTML and can be used with any XML-based markup language. The separation of

HTML from CSS makes it easier to maintain sites, share style sheets across pages, and tailor pages to different environments. This is referred to as the *separation of structure (or: content)*



Fig 2.1 Example

The above figure describes about the view that one individual views when a site is created. The developer develops it using html and css, while all the styling is taken care by the css, javascript and jquery.

CHAPTER 3

ALGORITHMS USED

3.1 INSTALLATION OF HTML , CSS& PYTHON

3.1.1 CSS

There are three ways of inserting a style sheet:

1. External CSS
2. Internal CSS
3. Inline CSS

External CSS: With an external style sheet, you can change the look of an entire website by changing just one file! Each HTML page must include a reference to the external style sheet file inside the <link> element, inside the head section.

Internal CSS : An internal style sheet may be used if one single HTML page has a unique style. The internal style is defined inside the <style> element, inside the head section.

Inline CSS : An inline style may be used to apply a unique style for a single element. To use inline styles, add the style attribute to the relevant element. The style attribute can contain any CSS property.

3.1.2 HTML

HTML 2

November 24, 1995

HTML 2.0 was published as RFC 1866. Supplemental RFCs added capabilities:

November 25, 1995: RFC 1867 (form-based file upload)

May 1996: RFC 1942 (tables)

August 1996: RFC 1980 (client-side image maps)

January 1997: RFC 2070 (internationalization)

HTML 3

January 14, 1997

HTML 3.2 was published as a W3C Recommendation. It was the first version developed and standardized exclusively by the W3C, as the IETF had closed its HTML Working Group on September 12, 1996.

Initially code-named "Wilbur", HTML 3.2 dropped math formulas entirely, reconciled overlap among various proprietary extensions and adopted most of Netscape's visual markup tags.

HTML 4

December 18, 1997

HTML 4.0 was published as a W3C Recommendation. It offers three variations:

Strict, in which deprecated elements are forbidden.

Transitional, in which deprecated elements are allowed.

Frameset, in which mostly only frame related elements are allowed.

Initially code-named "Cougar", HTML 4.0 adopted many browser-specific element types and attributes, but at the same time sought to phase out Netscape's visual markup features by marking them as deprecated in favor of style sheets. HTML 4 is an SGML application conforming to ISO 8879 – SGML.

HTML 5

October 28, 2014

HTML5 was published as a W3C Recommendation.

November 1, 2016

HTML 5.1 was published as a W3C Recommendation.

December 14, 2017

HTML 5.2 was published as a W3C Recommendation.

3.1.3 PYTHON

Python is an easy to learn, powerful programming language. It has efficient

high-level data structures and a simple but effective approach to object-oriented programming. Python's elegant syntax and dynamic typing, together with its

interpreted nature, make it an ideal language for scripting and rapid application development in many areas on most platforms. The Python interpreter and the extensive standard library are freely available in source or binary form for all major platforms from the Python Web site, <https://www.python.org/>, and may be freely distributed. The same site also contains distributions of and pointers to many free third party Python modules, programs and tools, and additional documentation. The Python interpreter is easily extended with new functions and data types implemented in C or C++ (or other languages callable from C). Python is also suitable as an extension language for customizable applications.

3.2 DEVELOPING WEB

Web development can range from developing a simple single static page of plain text to complex web-based internet applications (web apps), electronic businesses, and social network services. An ever-growing set of tools and technologies have helped developers build more dynamic and interactive websites.

Further, web developers now help to deliver applications as web services which were traditionally only available as applications on a desk-based computer. This has allowed for many opportunities to decentralize information and media distribution. Examples can be seen with the rise of cloud services such as Adobe Creative Cloud, Dropbox and Google Drive. These web services allow users to interact with applications from many locations, instead of being tied to a specific workstation for their application environment.

Basic

In practice, many web developers will have basic interdisciplinary skills / roles, including:

1. Graphic design / web design
2. Information architecture and copywriting/copyediting with web

usability, accessibility and search engine optimization in mind

3. Mobile responsiveness

Testing

Testing is the process of evaluating a system or its component(s) with the intent to find whether it satisfies the specified requirements or not. Testing is executing a system in order to identify any gaps, errors, or missing requirements contrary to the actual requirements. The extent of testing varies greatly between organizations, developers, and individual sites or applications.

3.3 WEB DEVELOPMENT TOOLS

Several notable web browsers have support for web developer tools that allow web designers and developers to look at the make-up of their pages. These are all tools that are built into the browser and do not require additional modules or configuration.

1. Firefox – F12 Web Console / Browser Console (since Firefox 4). The Web Console applies to a single content tab.
2. Google Chrome – Chrome Developer Tools (DevTools)
3. Internet Explorer and Microsoft Edge – F12 Web Developer Tools (as of version 8)
4. Opera – Opera Dragonfly
5. Safari – Safari Web Development Tools (as of version 3)

3.3.1 Web application development

It is the process and practice of developing web applications. There is a consensus that the processes involved are extensions of standard software engineering processes. Considering this, along with its unique characteristics, popular frameworks used include the spiral approach and business-oriented approach to application development, among other models that address the requirements for an iterative process. Just as with a traditional desktop application, web applications have varying levels of risk. A personal home page is much less

risky than, for example, a stock trading web site. For some projects security,

software bugs, etc. are major issues. If time to market, or technical complexity is a concern, documentation, test planning, change control, requirements analysis, architectural description and formal design and construction practices can mitigate risk.

3.3.2 Website design and development

Branding and strategic thinking

When others focus on just graphic design, we look at your brand's overall persona and devise ways in which the website design can accentuate it online. Our strategy team plays an important role in planning and devising a communication strategy for your website.

Creative web designing

All our web design projects are directly handled by the senior creative team. The team includes the Art Director, Creative Director and Copywriter – all of whom have over 19 years of expertise in building world-class websites.

Coding and Technology

Our software developers are updated with the latest coding standards and technology innovations in the desktop and mobile medium. This helps us build websites that are highly engaging, secure and in par with the best in the world.

Marketing your website

Who wouldn't want their website to rank well on search engines? Our expertise in search engine optimization and online marketing helps us build websites that rank well on leading search engines and perform well on social media

Website maintenance

Regular and timely maintenance of websites is a critical task which many ignore. Not when you have a website maintenance agreement with us.

3.4 HARDWARE REQUIREMENTS

Building a website has become a much more feasible task for the average user with the availability of free website creation software and services. With the software readily available, the only other things required are a few key hardware components. Luckily, highly specialized and expensive equipment is not needed to create a website.

3.4.1 *Computer*

Most current computers and laptops have high enough specifications to be used to create a website. The most important specification to check on the computer would be the size of the RAM, which should be over 2GB, though more is better.

3.4.2 *Internet*

In order to create a website, access to a high-speed Internet connection can be vital. This allows you to transfer the files that will make up your website to the online server that will be hosting your website, post updates on your website and look at your website live online to make sure that it is displaying correctly.

3.4.3 *External Hard Drive for Backup*

You should always keep a fairly current backup of your website in case there is an issue where the site crashes or files become corrupted. It is possible for an external hard drive to crash, losing your backup, but DVDs can be more unwieldy and can also scratch causing data loss.

3.4.4 *Server*

You will need a server computer to host your website on to make sure that it is available all the time for anyone trying to access it. While you can set up a computer to act as a web server, this is a highly complicated task, and it is far easier, more reliable and cost-effective to simply purchase a hosting package from a web hosting

company.

3.4.5 Mobile Devices

While not necessary, many free website creation softwares allow users to adjust, update and work on their website from a mobile device.

3.5 SOFTWARE

1. Microsoft Office--a free copy of Office 365 can be obtained at <http://office365.cameron.edu>
2. Java -- To view and interact with all available blackboard applications.
3. Real Player--for audio/video content.
4. Quick Time--for audio/video content.
5. PowerPoint viewer--PowerPoint Viewer lets you view full-featured presentations created in PowerPoint 97 and later versions.

CHAPTER 4

RESULTS AND DISCUSSIONS, PERFORMANCE ANALYSIS

The website consists of only Landing Page

4.1 LANDING PAGE

The HOME consists of following parts:

1. Input Box: Input box for validating Email.
2. Validate Button: Validate button validates entered Email in Input Box

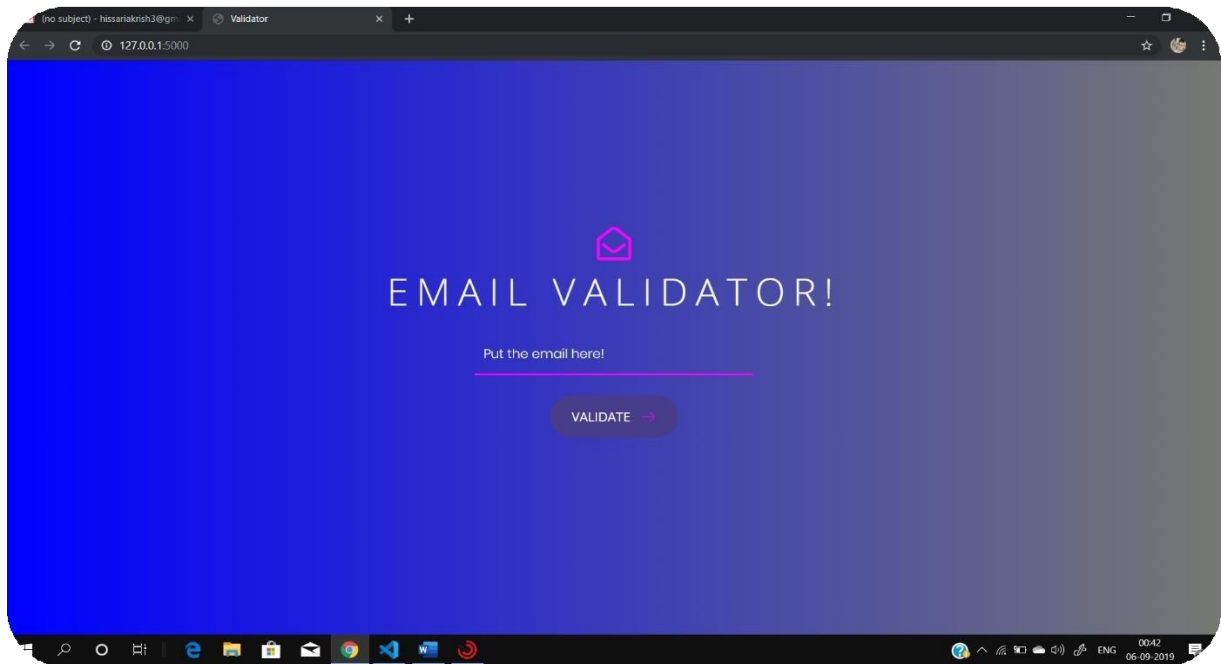


Fig 4.1 LANDING PAGE

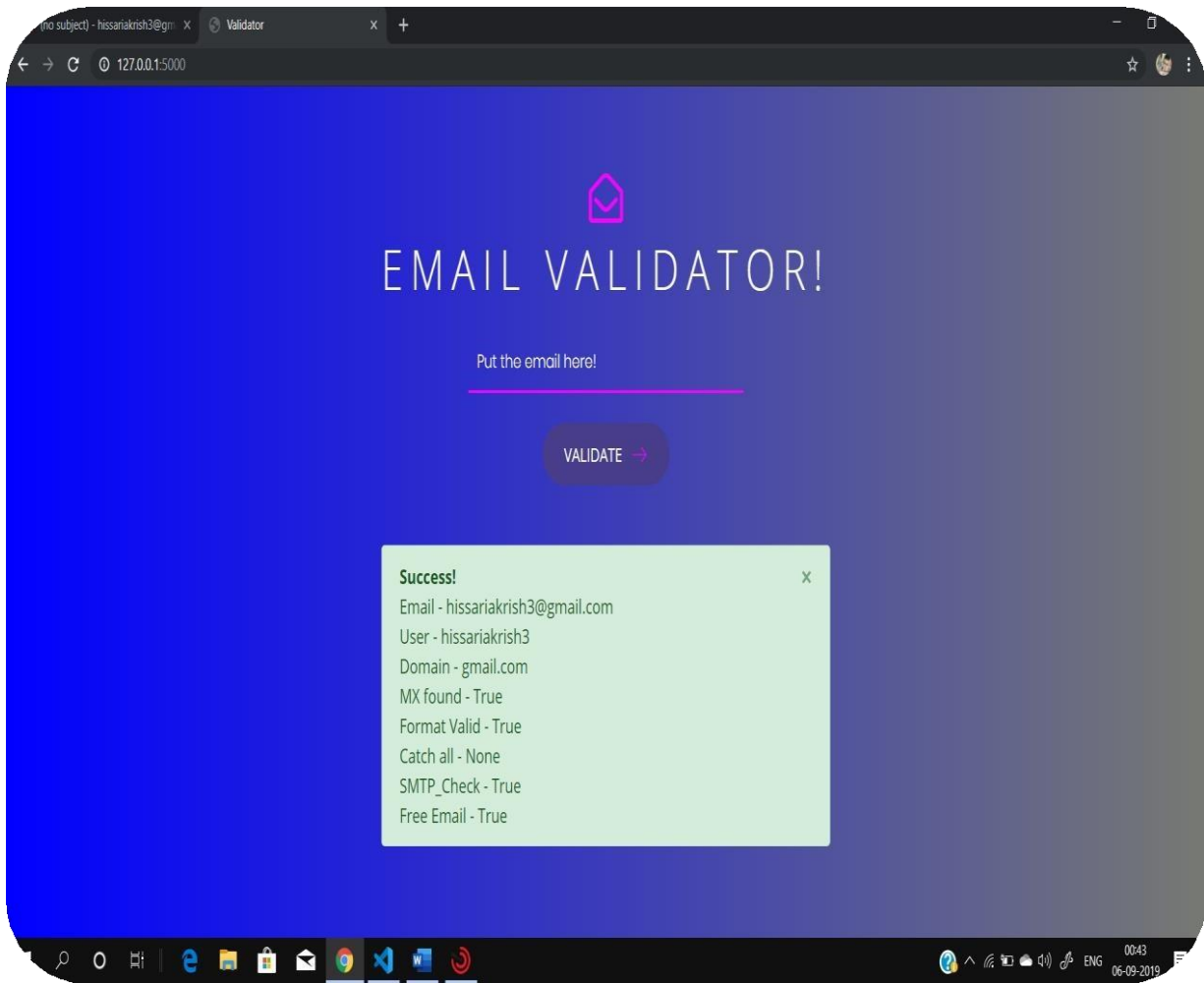


Fig 4.2LANDING PAGE(WITH CORRECT EMAIL)

The above figures shows how the front view of the Website. The page is having a general overview of correct entered Email.

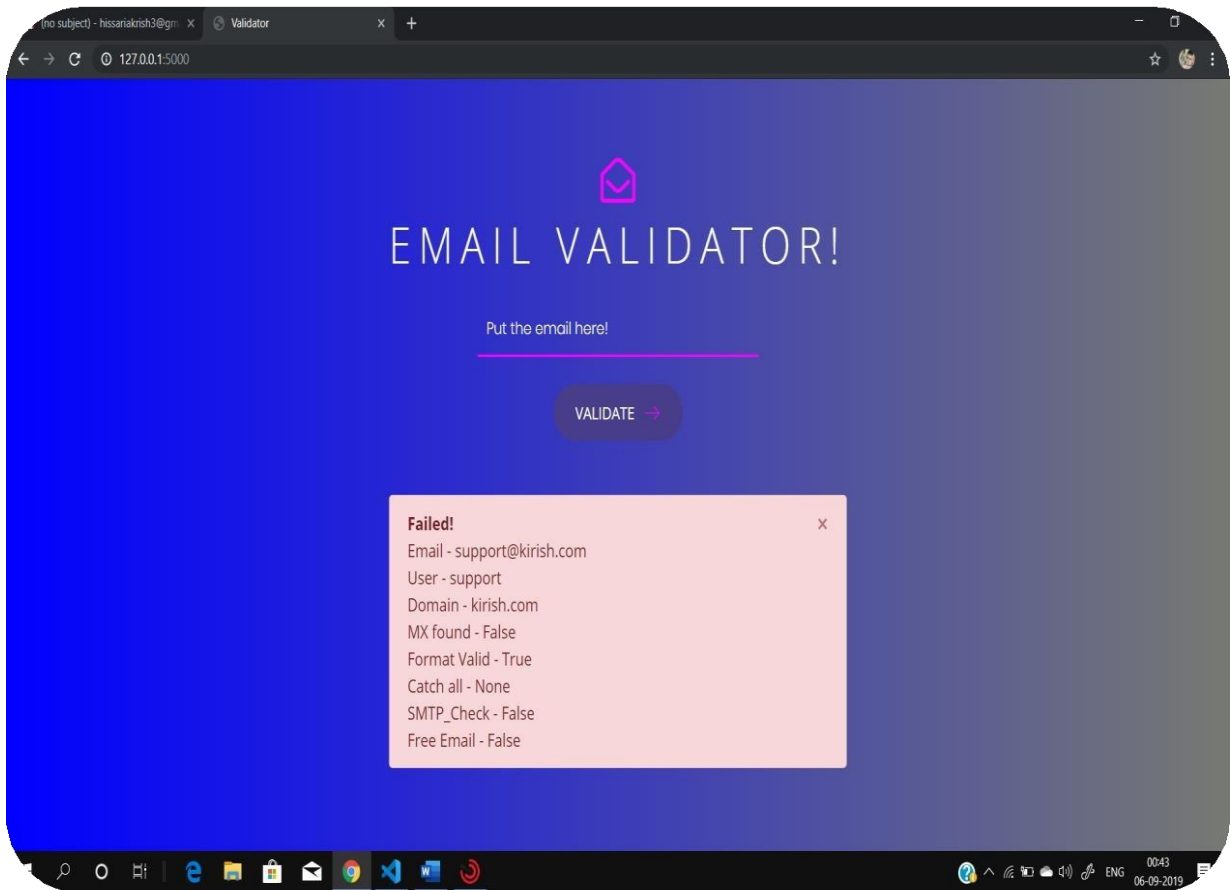


Fig 4.3LANDING PAGE(WITH INCORRECT EMAIL)

The above figures shows the front view of the Website. The page is having a general overview of Incorrect entered Email.

CHAPTER 5

SUMMARY AND CONCLUSION

5.1 OVERVIEW

The website Email Validator is built on skeletal languages HTML and CSS. Main frame work used is Flask. Many features of are considered like carousel, cards, Navbars, etc. Apart from software, the hardware requirements are met so as to run the website smoothly.

5.2 CONCLUSION

The References helped us how to use HTML to create a website. HTML is a universal markup language. File handling is another important part of web application. Often we need to open and process a file of different task. CSS Border image property is also used here. The CSS border-image property allows you to specify an image to be used instead of normal border around an element. The website is based on frameworks , here its Bootstrap which was used. The website also uses some high definition photos.

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- [6]HTML5 W3C Recommendation 28 October 2014 (@ <http://www.w3.org/TR/html5>).
- [7]W3School HTML/CSS Tutorials, References and Examples @_ <http://www.w3schools.com>
- [8]WHATWG (Web HyperText Application Working Group) HTML(5) Specification (@_ <https://html.spec.whatwg.org/multipage/index.html>).
- [9]David Sawyer McFarland, "CSS 3 - The Missing Manual", 3rd edition, 2013, O'Reilly.

APPENDIX

(A)SOURCE CODE

INDEX.HTML

```
<!doctype html>  
<html lang="en">  
<head>
```

<!-- Required meta tags -->

```

<meta charset="utf-8">
<meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">

<!-- Bootstrap CSS --> <link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/css/bootstrap.min.css"
integrity="sha384ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x
9JvoRxT2MZw1T" crossorigin="anonymous">

<!-- Third-party CSS -->
<link rel="stylesheet" href="https://use.fontawesome.com/releases/v5.6.3/css/all.css"
integrity="sha384-
UHRtZLI+pbxtHCWp1t77Bi1L4ZtiqrqD80Kn4Z8NTSRyMA2Fd33n5dQ8IWUE00s/"
crossorigin="anonymous">
<link href="https://fonts.googleapis.com/css?family=Open+Sans:400,700,800,300"
rel="stylesheet" type="text/css">
<link href="https://fonts.googleapis.com/css?family=Poppins:300&display=swap"
rel="stylesheet">

<!-- Own CSS -->
<link rel="stylesheet" type="text/css" href="/static/css/style.css">

<title>Validator</title>
</head>
<body>
<div class="container-fluid">
<div class="wrap-content">
<div class="logo"><i class="far fa-envelope-open"></i></div>
<div class="title">
<h1>Email Validator!</h1>
</div>
<br/>
<form class="v-mail-form" method="POST" autocomplete="off">

```

```

<input class="input100" type="email" id="v-email" name="email" placeholder="Put the
email here!">
<br/>
<button class="v-mail-form-btn" id="validate-btn" type="submit">
    Validate
<svg class="lnr lnr-arrow-right"><use xlink:href="#lnr-arrow-right"></use></svg>
</button>
</form>
<br/>
<br/>
    {% if display %}
        {% if error %}
<div class="alert alert-danger alert-dismissible">
<button type="button" class="close" data-dismiss="alert">&times;</button>
{{ error }}
</div>

    {% elif smtp_check == False %}
<div class="alert alert-danger alert-dismissible">
<button type="button" class="close" data-dismiss="alert">&times;</button>
<strong>Failed!</strong>
<br/>
<span>Email - {{email}}</span>
<br/>
<span>User - {{user}}</span>
<br/>
<span>Domain - {{domain}}</span>
<br/>
<span>MX found - {{mx_found}}</span>
<br/>
<span>Format Valid - {{format_valid}}</span>
<br/>
<span>Catch all - {{catch_all}}</span>

```



```

<span>SMTP_Check - {{smtp_check}}</span>
<br/>
<span>Free Email - {{free}}</span>
</div>

        {% else %}
<div class="alert alert-success alert-dismissible">
<button type="button" class="close" data-dismiss="alert">&times;</button>
<strong>Success!</strong>
<br/>
<span>Email - {{email}}</span>
<br/>
<span>User - {{user}}</span>
<br/>
<span>Domain - {{domain}}</span>
<br/>
<span>MX found - {{mx_found}}</span>
<br/>
<span>Format Valid - {{format_valid}}</span>
<br/>
<span>Catch all - {{catch_all}}</span>
<br/>
<span>SMTP_Check - {{smtp_check}}</span>
<br/>
<span>Free Email - {{free}}</span>
</div>

        {% endif %}
    {% endif %}
</div>
</div>
<!-- Optional JavaScript -->
<!-- jQuery first, then Popper.js, then Bootstrap JS -->

```

```

<script src="https://code.jquery.com/jquery-3.3.1.slim.min.js"
integrity="sha384q8i/X+965DzO0rT7abK41JStQIAqVgRVzpbzo5smXKp4YfRvH+8a
btTE1Pi6jizo" crossorigin="anonymous"></script>
<script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.7/umd/popper.min.js"
integrity="sha384-
UO2eT0CpHqdSJJQ6hJty5KVphtPhzWj9WO1clHTMGa3JDZwrnQq4sF86dIHNDz0W
1" crossorigin="anonymous"></script>
<script src="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/js/bootstrap.min.js"
integrity="sha384-
JjSmVgyd0p3pXB1rRibZUAYoIlly6OrQ6VrjIEaFf/nJGzlxFDsf4x0xIM+B07jRM"
crossorigin="anonymous"></script>
<script src="https://cdn.linearicons.com/free/1.0.0/svgembedder.min.js"></script>
</body>
</html>

```

VALIDATOR.PY

```

from flask import Flask, render_template, request import
requests

```

```

# MAILBOXLAYER API KEY api_key =
'bc4de3872109527a118fe057bb7aa987'

```

```

app = Flask(__name__, static_url_path='/static')

```

```

@app.route('/', methods=['GET', 'POST']) def
Home():

```

```

    if request.method == 'POST':
        email = request.form.get('email', None)
resp_format = 'JSON'    if email is not "":
    response = requests.get(f'http://apilayer.net/api/check', params={
        'access_key': api_key,
        'email': email,

```

'smtp': 1,

```

        'format': 1,
    })
    resp_json = response.json()
    return render_template('index.html',
        display=True, email=resp_json['email'], user=resp_json['user'],
        domain=resp_json['domain'], mx_found=resp_json['mx_found'],
        format_valid=resp_json['format_valid'], catch_all=resp_json['catch_all'],
        smtp_check=resp_json['smtp_check'], free=resp_json['free'],
    )
else:
    error = 'field cannot be empty'
    return
    render_template('index.html', display=True, error=error)
    return
    render_template('index.html') # Response to the client

if __name__ == '__main__':
    app.run(debug=True)

```