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What is the Best Way to Develop a Website?

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WHAT IS THE BEST WAY TO DEVELOP A WEBSITE?

by

Nahomy Julieta Calderon Lopez

Submitted in Partial Fulfillment of the Requirements
for the Degree of Master Digital, Multimedia, and Web Design
at
Lindenwood University

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Nahomy Calderon, October, 2023

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WHAT IS THE BEST WAY TO DEVELOP A WEBSITE?

A Thesis Submitted to the Faculty of the Art and Design Department
in Partial Fulfillment of the Requirements for the
Degree of Master of Arts
at
Lindenwood University

By

Nahomy Julieta Calderon Lopez

Saint Charles, Missouri

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ABSTRACT

Title of Thesis: What is the best way to develop a website? - <http://quiz.thesis.nahocalderon.com/>

Nahomy Julieta Calderon Lopez, Master of Digital, Multimedia, and Web Design, 2022

Thesis Directed by: Dr. Jason Lively and Ms. Erica Blum.

This project is centered around empowering individuals with the knowledge and resources necessary for effective website development. The culmination of Thesis/Directed Project II is a user-friendly website designed to distill and present the insights gathered during Thesis/Directed Project I. This website features an engaging interactive quiz, aimed to help the users identify what is the best way, for them, to develop a website. The quiz has multiple questions, each with three distinct response options, the quiz guides users towards one of three key approaches for website development: Website Builders, Content Management System platforms, or Coding. Upon receiving their quiz results, users are provided with detailed information on why their recommended approach is the most fitting for their needs. Subsequently, they have the opportunity to explore the website deeper into each development option.

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Introduction

Today we live in a highly globalized society that constantly proposes new ways of interacting and sharing information through the usage of new technologies. Knowing and using the tools proposed by these is now fundamental, regardless of the field of study in which we are involved. It is about being aware of the different requirements of the present day, and being able to cope with them while using the same resources of the present day in our favor.

Therefore, it is essential for anyone who needs to share information of any kind nowadays, to be familiar with the creation of a website; one of the most widely used tools for content creators and companies today. Owning a website is a unique opportunity to make a great first impression and show your audience that you are an authentic content creator or business. While this may seem obvious and therefore we may conclude that creating a website is not a complex task, there is indeed a lack of information on how to create a website from scratch for those inexperienced in the matter.

When you research how to develop a website, you immediately get overwhelmed with all the options that the internet has for you, the different prices, and the information about each one of them but you don't receive a full explanation of why you should follow a specific path. You can get more confused after a bit of research. In this sense, this project aims to share through a website the different programs that exist today to create a website, analyzing their advantages disadvantages, differences, tools involved, principles, and, most importantly, the skills that are necessary to have accurately used each of these. This is with the main purpose of helping those who are still uncertain about how to take the first steps toward the creation of a website that can undoubtedly help their brand grow.

The website currently presents a simple yet comprehensive quiz, designed to be easily understood by various audiences. The quiz is intentionally short but complete, to ensure that users don't invest too much time in them. The primary aim is to assist individuals in quickly identifying the most suitable option for creating a website: Website Builders, CMS platforms, or Coding. While all three avenues can lead you to website creation, they are distinct from one another. This implies that the resources and skills required to work with them also vary.

Literature Review

One of the main topics that the journal article *Mis Quarterly* analyzes is the “*Co-creation in Virtual Worlds*” (2011), a workpiece on creativity and virtual reality that Nambisan and his colleagues develop between the years of 2007 and 2009. The work is related to the customer experience and their actual interaction on different forums. The results show that people are encouraged to participate in those forums when they feel related, and share similar experiences, values, and beliefs with other people in the forums. Therefore, it is something that we still see in current platforms, and to keep more people engaged with them, they need to remain updated in many areas, most importantly, in the User Experience (U/X) field.

It is important to emphasize the need for technology to properly interact with users, the design and responsive interface, and the innovation to provide a better experience and achievements within the companies and individuals. When it comes to companies using social media to create an impact on their target audience, reception and engagement are essential to create better connections, and new interactions, as well as to keep them loyal to the brand. This is where digital, multimedia and web design need to be considered. Design is the most effective tool for it, not just in the creative development of applications, platforms, or user experience, but also for the advertisement that companies need.

Digital Design Essentials (year) is a book, that takes an approach to designing graphical user interfaces for desktop, mobile, and touchscreen devices (mobile devices). In addition to this analysis, they also mention the ideas and work of Steve Jobs, where he states that "design is not what it looks like, design is how it works" (author last name, p. 8). That statement needs to be taken into consideration, as it is very powerful and precise. Design is not just about making something look "pretty" or attractive". Aesthetics are important, but their functionality of it is

important as well, and that is what Steve Jobs focused on for the years and the development of his brand, Apple. The different devices, websites, and mobile applications that Apple has been offering over the years represent a lot of work done behind the scenes. There must have been a lot of research on the audience's needs and expectations, to create something different from the rest.

Making websites and mobile devices is a task that requires skills, and to do that in the best possible way it is important to understand the programming languages that are involved. It is not a secret that nowadays many platforms can facilitate these types of processes, like the ones that allow someone with no experience in these areas to create a "logo", "websites" or "advertisements" through templates or pre-generated codes. Nevertheless, it might not be the best way to achieve the goals. Computers cannot and should not replace people's jobs, instead, they should be taken as part of the creation process. When people that do have the skills mentioned before rely upon these types of platforms to make the job faster, they are being aware of the many strategies that can be put into practice to guarantee that the final result will still be unique, professional, and responsible.

Another one of the research articles from *Mis Quarterly*, called "Technology: Towards a Unified View," is about the increased use of technology that has resulted in several competing models, also related to literature and technology. These models and theories are expressed in a table of content that describes the individual acceptance, the definitions of each model, how they integrate, the verification they have, and the comparisons between one to another (Davis et al., 2003, pp. 428-436). For instance, these models of technology are concerned with behavior, social dissemination, and cognitive theory. The illustration from the journal article can be found at the end of this paper. Figure 2 ("Research Model", September 2003, p.447)

When developing a website, it is important to validate the coding created, and this can be done by other websites, applications, or humans that are experts in the field or that have expansive knowledge about it. If the person does not validate the website when they "finish" coding, it might look like everything is fine but when the document is out on the domain can compromise the functionality and speed of the website; as a result, the website can be slow and useless.

Understanding the client's and users' expectations is key to creating a functional and responsive website that works for everyone who is intended to use it. The "A Task-Based Model of Perceived Website Complexity" article discusses the various resources that can be used when creating a website, such as motion graphics, videos, illustrations, images, audio, visuals, hyperlinks, and so on. These are characteristics that make a website unique, more appealing, interesting, and functional by making it easier to explore.

Many of the most important themes covered in this study are the formulation of a large and holistic model for websites, which examines the origins and the interaction between technical complexity and Perceived Website Complexity (PWC). The Perceive Website Complexity is important because it allows a better understanding of what is working and what is not. Therefore, it allows for improving coding and design while saving time and energy in the process. Figure 3, is taken from this research article and examines the complexity of the results from the studies they realized (Names, 2007, p. 516), using 16 websites in each treatment cell to analyze the PWC.

"*Media Now (2012)*" is one of the specific lectures from the class that discusses: the relationship between mass media communications and society, the internet, advertising, social media, search engines, web design, videogames, how people respond to inventions, and how they implement the new tools in an everyday life. Above all, the study is about narratives and

impressions from the public to the media and vice versa. Focusing on social media, the internet, and web development, the themes they address are largely visual and extended, making it easy to be analyzed from a Cultural Studies perspective. The lecture “Video Games” (pp. 313-335) presents a small section called “Media and Culture” (p. 329) where the relationship between videos games and films is analyzed as an interactive film, but the examination of culture in connection with other topics from the article can easily be looked over individually.

Chapter 10, "The internet" (pp. 251-277), describes how society and culture influence companies' decisions and inventions. For example, Apple's evolution has occurred because they understand the target public; they are constantly researching their needs and expectations to create distinct ways to present information to the users, building a strong brand where design and functionality are always present within their products, website, desktop & mobile applications, advertisings campaigns, and stores. Furthermore, it is something that happens constantly with companies and brands; they must adapt and change to become better and stay positioned in people's minds. Innovations in this matter are not strictly to social media, they are great tools for web developers as well as for the part of the population that works in the creation process, where the programming languages are transitioning with time to ensure that the devices are easier to use and understand, like the HTML (Hypertext Markup Language), CSS (Cascading Style Sheets), and JavaScript.

Design Thinking (2008) is a source of information that talks about how to understand the design process when building websites. The article presents five steps that can narrow the methodology of design thinking. See Figure 4 for a map reference. Bell (2008) states that “design thinkers take a much more deliberate and thoughtful approach to problem resolution; they rarely jump on bandwagon” (p. 46). To explain this idea, it is important to remember the purpose of

design thinkers, which is not just about creating new inventions. Design thinkers can find the best solutions to different problems, using abilities like creativity, intelligence, and adaptability. When Bell says “they rarely jump on bandwagon” (p.46) what he is trying to explain is that designer thinkers do not usually go after whatever is trending just because is on-trend, they focus on investigating and understanding what is happening at the moment to decide and formulate the best option to design a solution.

“Creating Through Mind and Emotions” is an innovative platform that allows one to present, interact, and share research. It also aims to promote awareness while focusing on various topics like design, social sciences, architecture, arts, and humanities, as well as the significance and advantages of the sense of identity on a personal and a collective level. The concept has been a potent engine for progression. This eBook is a great resource of information for the final website, with great explanations that help to connect better with the users.

The practical, *“100 Design Principles for Working with Type”* from “*Typography Essentials*”, simplifies the numerous problems related to the efficient use of typography. It is undoubtedly a great resource for designers since 2009 and has been modified with new content, images, and pictures, as well as a fresh new style, which makes it more enjoyable and updated. The text is divided into four sections: The Letter, The Word, The Paragraph, and The Page, and addresses all practical facets of type design. It explains and is accompanied by beautiful visual examples taken from worldwide publications such as books, magazines, posters, journals, websites, and more. This eBook keeps the typography selection process interesting, engaging, and educational for designers.

With real-world examples and hands-on exercises, *“The HTML and CSS Workshop”* is a great tool to produce unique, elegant, and responsive websites. This eBook explains key Elements like HTML and CSS to create useful and beautiful websites from scratch, overcoming the typical web design and development obstacles. One of the most important factors is to make sure the websites you create are interesting and accessible on all devices, like desktops, tablets, etc. It doesn't use website-building tools to explain the content, it helps the reader to understand how HTML, HTML5, and CSS work to manage them over time. Therefore the information here is going to be fundamental for the final Thesis Project. It explains how to use multimedia experience on websites by including video, audio components, animation, and transitions created with coding, such as JavaScript for additional interaction, also important to understand media queries to make sure that the website works properly on different screens.

Every Web Designer wants to create unique user experiences, and *“101 UX Principles”* helps with finding and explaining useable software solutions that impulse the development of companies. This book offers 101 strategies to improve the user experience based on the knowledge from the experts' Don Norman and Jakob Nielsen. It outlines the most important concepts in usability and design with visual techniques. A great source for UX specialists, as well as a quick route to greatness for anybody in need of a concise and well-chosen set of principles for UX performance.

“Fixing Bad UX Designs” ensures greater customer satisfaction by pointing out and explaining how to correct UX issues at various stages of a UX Design while using different methodologies. It uses illustrations and descriptions for web applications and UX-related problems with case studies that go from the most common to the most complex ones. This is a very important resource for the final deliverable because it is fundamental to know how to identify and avoid these

problems, as well as knowing how to fix them to create the best user experience and efficient results on the website.

“Bootstrap 4 – Responsive Web Design” is a guide that analyzes web application development. It shows how to create websites that are compatible with mobile devices by learning responsive web design through practical examples in Bootstrap framework, accelerating front-end programming, and testing. A great tool for any graphic designer that wants to become a web developer, with little experience in HTML, CSS, and JavaScript. Frameworks and jQuery are also explained in this book because it helps with the development patterns, and desktop and mobile application layouts, as well as the design principles for Web Pages.

In today's market development, businesses must provide clients with ground-breaking goods, services, and solutions to achieve their goals successfully. The principal problem is that clients often are unsure of their exact needs, therefore Chip Bell in *“Inside Your Customer’s Imagination”* suggests collaborating with the clients in co-creation to meet their expectations, define goals, create tasks, develop better ideas, and receive mutual feedback that will also improve the communication in general.

“WordPress 5 Cookbook” allows you to use advanced plugins and themes to create cutting-edge websites in WordPress' built-in capabilities with custom codes and frameworks. The management and security of a website's performance can be approachable with elements that can be found in WordPress through CMS (Content Management System). This also helps with the optimization of a website to make it easier to find on the internet, using keywords that are related to what the client offers. This book is for intermediate web developers who want to expand WordPress' fundamental capabilities to support current website technologies as well as people who

want to design modern websites with little to no coding experience. However, is good to mention that knowing some of the basics of coding (HTML and CSS) can make a huge difference when learning about WordPress.

The name of the article captures my attention "*How To Talk Design: Good Results Depend On Clear Communication*" because it refers to good communication in design, which is a very important characteristic that any graphic designer should have. Communication is key and not just with the clients or between companies and customers, but also between the design and the public. This article is about a designer that studied methodologies in the graphic design area but saw the need to pay attention to communication during the processes and the final product. In this specific case with the directors. Learning how to learn with other people is essential for this industry, even if you decided to be a freelancer you need to have communication skills to talk to your clients or the public and to know how to react or express yourself in different situations.

"Enhancing the creative learning experience through harnessing the creative potential of digital and social media platforms in art and design educational contexts". Social Media is a computer-based technology tool that allows us to share our life with everyone, information, ideas, or thoughts and this can be useful, but if it is not used correctly it can be harmful. Technology is present in our everyday life and recognizing its power of it we can use it in our favor, in this case with social media platforms and their design of these.

The research presented here shows the potential that we can use these platforms for students of arts and graphic design. It also shares the benefits that social media applications bring to the creative process for educators and students. The proof of all of that came from two experiments, the first one investigates the use of social media platforms by 42 students, and it is

focused on how this can improve the creative thinking of both parties (students and educators). It also gives us information about how they can find a better and faster solution using these technologies.

Methodology

Part 1

Week 1:

- Initiated the process by narrowing down project topics.
- Defined titles and subtitles for the project.

Week 2:

- Conducted research on the selected topics.
- Created comprehensive topic descriptions.

Week 3:

- Specified headings and sections for the website/paper.
- Commenced content creation for the website and paper.
- Developed a sitemap for the future website.

Week 4:

- Reviewed project progress with committee chair members.
- Ensured alignment with the intended direction.

- Received feedback from the writing specialist for grammar and clarity.
- Ensured inclusion of all necessary information.

Week 5:

- Incorporated feedback from committee chair members and writing specialist.
- Planned quiz questions and structured the future website.

Week 6:

- Finalized paper conclusions.
- Explained the quiz's functionality and result presentation.
- Organized website content, including typography and color choices.
- Scheduled the first oral defense.

Week 7:

- Dedicated to project completion and readiness for review.
- Conducted the oral defense.

Week 8:

- Delivered the final paper, incorporating any last-minute changes.

Part 2

Week 1:

- Created a website sketch, including a site map, topic outlines, and quiz planning.
- Selected headings, subheadings, color scheme, and typography.
- Confirmed committee chair members.

Week 2:

- Planned visual elements for the website.
- Improved quiz questions and answers.

Week 3:

- Achieved 50% completion of website content.
- Aligned with committee members and allowed time for adjustments.

Week 4:

- Addressed errors and made ongoing updates to the website.

Week 5:

- Conducted a final review and revision by committee chair members and the writing specialist.
- Made necessary adjustments.

Week 6:

- Submitted the final draft for committee chair and writing specialist review.

Week 7:

- Submitted the paper to the committee chair.
- Completed HTML, CSS, and JS coding for the website.

Week 8:

- Uploaded files to the hosting platform's File Manager.
- Provided a zip file with all website codes.
- Conducted the Oral Defense with the committee chair.
- Concluded the project's final stages after the Oral Defense.

Information for the website

Website meaning

“a set of related web pages located under a single domain name, typically produced by a single person or organization.”

Website Builders

1. What are website builders?

According to Forbes, a website builder *“is a tool that allows you to build a website without coding experience”*.

This is a great way to help people achieve their website goals, especially when they don't have much experience in the topic but is something that they need or want to create on an easy level. Website builders use a drag-and-drop interface that, for most people, is very intuitive and easy to understand. They can be used to create or update content on an existing website. Some website builders also have an e-commerce format that makes it simple for people wanting to sell

products or services through their platform. In general, they can customize the information presented, the colors, typography, and media but it has its limitations when it comes to the website structure.

One of the best parts about website builders is that often, inside the platform, you can find good explanations and examples about how to use it, and if you can't find answers there, you can always go to the web browser, and because it is used by so many people, most likely someone already had the same issues so you can find solutions there through them. Not every website builder is strictly customizable on the web browser, some of them allow you to install additional software, for a better editor experience. Website builders also allow you to create websites faster, helping you save time and money!

2. How do website builders work?

A website builder works with a drag-and-drop format that modifies the actions you do in the platform, into codes, that's one of the reasons why website builders are a perfect option for people with little or no experience in web design or coding. Most website builders offer free and/or paid templates that can be customized not just for appearances, but also for the intentions of the website, like a portfolio, a gallery, or an online store. Website builders offer a diverse media stock platform inside the program, this can be very useful to fill the pages but it is always better to show your work to create that trust in people and make the site more unique. A quick view of the step-by-step process is:

- Select a template.
- Customize content and design.
- Add functionality (e.g., forms, galleries).

- Publish the website.

3. Types of Website Builders

1. Hosted Website Builders:

- Hosted website builders like Wix and Squarespace provide an all-in-one solution. They host your website on their servers, handle technical aspects, and offer an intuitive drag-and-drop interface.
- These platforms are user-friendly and suitable for beginners. You don't need to worry about server maintenance or software updates.
- However, customization options may be limited compared to self-hosted solutions, and you might have to pay subscription fees.

2. Self-hosted CMS (e.g., WordPress):

- Self-hosted solutions like WordPress give you more control. You install and manage the software on your own web hosting server.
- They offer greater flexibility, allowing you to customize your website extensively with plugins and themes.
- Self-hosted options require more technical knowledge and responsibility for server maintenance and security.

3. E-commerce (e.g., Shopify) vs. General-purpose:

- E-commerce-focused platforms like Shopify are tailored for online stores. They come with features such as product listings, payment processing, and inventory management.
- These platforms simplify the setup of online shops, making it easy to sell products and manage orders.

- They may have higher costs associated with e-commerce-specific features.

4. **General-purpose Website Builders:**

- General-purpose platforms, like Wix and Squarespace, are versatile and can be used for a wide range of website types, from blogs to portfolios and small business sites.
- They provide flexibility but may require more customization to set up e-commerce functionality.
- General-purpose website builders are often chosen when you need a website that goes beyond e-commerce.

5. **Free Website Builders (e.g., Weebly):**

- Free website builders like Weebly offer a no-cost entry point for creating basic websites. They often provide free subdomains.
- These are great for individuals or small businesses with tight budgets.
- However, free plans typically come with limitations like ads, reduced features, and restricted domain options.

6. **Premium Website Builders (e.g., Webflow):**

- Premium website builders like Webflow offer more advanced features, custom domain options, and enhanced support.
- They are suitable for businesses and individuals who want a professional and polished website.
- Premium plans come with a price tag but offer greater control and flexibility.

The most popular Website Builders platforms in 2022 are:

- Wix – The easiest platform to use according to most people, their drag-and-drop format is clean and very intuitive. Excellent for those who want to show their website as fast as they can and do not need to change their site often.
- Squarespace – Another great platform with a drag-and-drop format with multiple templates and the option to use custom code! This site can be an amazing tool for people who want to create personal websites or for companies the format or content does not have to change often. Also a really good tool for individuals that have some knowledge in coding, graphic design, or programming, it can make a huge difference when applying it to the site
- Shopify – This Website Builder is meant to be used by individuals or small companies that want to sell products or services. Is easy to understand and manage to create a site that represents your brand. Very intuitive as well.

4. Comparisons / Overview Table.

Website Builder	Customization	Starting Price
Wix	Limited	Free - \$14/month
Squarespace	Moderate	\$12/month
Shopify	Limited	\$29/month

CMS

1. What is a CMS?

A Content Management System, also known as CMS is software you can use to manage the information for your website. You can create and modify the content on your site through this

software, even without coding knowledge. Another great option for people with little or no experience in the web design field!

In general, the websites you can create in CMS are more customizable than the ones you can create with Website Builders. Even though some CMS platforms allow you to use templates, you can micromanage the content and details that are going to be shown on the server. They also take less time in processing the information to the browser, they have better performance overall and better SEO (Search Engine Optimization), which is the process that aims to improve the traffic, quantity, and quality of the users that visit your site, focusing in potential users, rather than just random or paid traffic. Very important to know when developing a site.

2. How does a CMS work?

The Content Management system works with a **front side** and a **backside**. The front side allows you to create the content you want through built-in tools in the dashboard, also known as the **CMA** (Content Management Application). The back end or **CDA** (Content Delivery Application) oversees delivering the content that the user requested on the server.

CMS platforms also allow you to upload and manage the media you want to show on your website, such as images, icons, videos, photographs, audio, etcetera. Usually, they have a media library which is pretty helpful when you don't have all the specific media you need. Yay! Another important aspect of CMS platforms is that is usually less expensive than website builders but you need to have a domain and hosting place for your website. Don't forget about the security part too when buying a domain!!

3. CMS Platforms.

Some of the most used CMS platforms in 2022 are:

- WordPress.
- Joomla.
- Drupal.
- Wix
- Squarespace
- Medium

4. Comparisons / Overview

CMS Platform	Popularity	Flexibility	Learning Curve	Community Support
WordPress	High	High	Moderate	Large
Joomla	Moderate	Moderate	Moderate	Medium
Drupal	Moderate	High	Difficult	Medium
Wix	High	Moderate	Easy	Large
Squarespace	High	Moderate	Easy	Large

Coding

1. What is coding?

According to careerkarma.com, *“Coding is the process of creating instructions for computers using programming languages. Coding is used to program websites, apps, and other technologies we interact with every day.”* – careerkarma.com

Code is like another language that is used to give instructions to the server in the back end to be shown in the front end. The back end is where you program this language and save the data with the information and instructions you write, the users cannot interact with this part and you

can create these codes in applications like Visual Studio. The front end is the server where that information is shown and can be seen and makes it accessible to the users. While you are creating your website, you can open the codes in a live server to help you see how the instructions are being interpreted on the server.

Each server has its host and this works by telling the internet where to send the information, the "host" is also known as the domain name. Any website also needs an IP address, where the website is hosted.

2. Basics of coding

When it comes to coding a website, several fundamental programming languages and technologies are used to create the different parts of a website. Let's break them down!

HTML (Hypertext Markup Language):

Think of HTML as the "skeleton" of a webpage. It works by defining the structure and formatting of the web pages you create with coding, here is where you structure the content, text, images, headings, and links.

CSS (Cascading Style Sheets):

Cascading Stylesheet most commonly known as CSS for its abbreviation, is the design language you can use to make websites look attractive and focus on your target audience by the design. CSS helps make your site look unique by controlling colors, fonts, spacing, layout, and more. This can be attached to any HTML element.

JavaScript (JS)

JavaScript is known for its functionality, is a powerful and interpreted language meant for website development, and is also used for the interactivity part. JavaScript adds the "magic" to your website. It makes things happen when you click buttons, fill out forms, and interact with the page. It brings your site to life!

Database Management Systems:

Databases are like your website's "filing cabinets." Systems like MySQL or PostgreSQL help store and retrieve data for your site.

Web Frameworks:

Web frameworks are like ready-made tools for building websites. They save you time and effort by providing a blueprint for creating web applications.

Responsive Design and Media Queries:

This is like the "flexibility" of your website. It ensures your site looks good and works well on all devices, from big computer screens to small smartphones, and it can be as customizable as you want! Remember, building a website is a creative and fun journey. You can start with the basics and gradually explore these technologies as you become more comfortable. We have so many tools out there, so don't be afraid to experiment and learn along the way!

Quiz Information

The website is designed to assist users in determining 'What is the best way to create a website?' through an interactive quiz. In just 10 questions, the quiz will provide personalized recommendations. The quiz is carefully designed to deliver meaningful results while keeping

users engaged throughout. At the end, the results will include a brief introduction explaining why the recommended option is best for them, along with additional resources for each answer.

Question 1: How comfortable are you with coding and programming languages?

- A. I haven't tried coding before.
- B. I know the basics.
- C. I'm a coding expert!

Question 2: What is the primary purpose of your website?

- A. Personal blog or portfolio.
- B. Business or e-commerce site.
- C. I want to create unique websites and explore related opportunities.

Question 3: How important is it for you to have full control over the design and functionality of your website?

- A. I'm cool with pre-designed templates.
- B. Customization options would be great!
- C. I need complete control for a unique design.

Question 4: What's your budget for creating and hosting your website?

- A. I have a limited budget.
- B. I'm good with investing a reasonable amount.
- C. Money is not a concern. I want the best.

Question 5: Do you have specific design ideas in mind for your website?

- A. I prefer pre-designed options.
- B. Yes! But I need help executing them.
- C. I have an idea and want to design it myself.

Question 6: How much does website speed and performance matter to you?

- A. Not much.
- B. Somewhat.
- C. A lot. I want the best performance.

Question 7: Will you sell products or services on your website?

- A. No, it's just for information or personal use.
- B. Yes, I want e-commerce features.
- C. Maybe in the future.

Question 8: Do you want to regularly update your website?

- A. No, not really.
- B. Yes, occasionally.
- C. I'm committed to keeping it up to date and improving it.

Question 9: How much time are you willing to invest in creating and maintaining your website?

- A. As little as possible.
- B. A moderate amount.
- C. A lot; I'm committed to regular maintenance.

Question 10: How involved do you want to be in creating your website?

- A. I want it to be simple.
- B. I want some involvement but not too technical.
- C. I want to be very involved in every aspect.

Results:

- **Mostly A's:** It seems like simplicity is what you're looking for. In that case, Website Builders might just be your perfect choice!
- **Mostly B's:** Wow! A content management system (CMS) like WordPress is a fantastic choice!
- **Mostly C's:** Awesome! It seems you're not just interested in creating a website; you're ready to learn everything about it or even become a web developer. If this is not the case, you may consider hiring a web developer for your project.

The following information will be displayed according to the quiz answers:

Website Builders are incredibly user-friendly and intuitive. They offer customizable templates for colors, fonts, and media like images and videos. Plus, many of them provide convenient paid options that include essential features like domains, security, and images, all in one place!

To explore different types of Website Builders, click the button below!

Content Management System (CMS) platforms offer great SEO (Search Engine Optimization) capabilities to attract organic traffic to your website. They are faster to develop than coding from scratch, and if you have coding knowledge, you can apply it to make your site even more unique. CMS platforms are highly customizable, allowing you to micromanage the appearance and information.

Another advantage is that most CMS platforms offer a media library, helping you get started when you don't have your own media assets.

To learn more about CMS and explore different CMS platforms, click the link below!

Coding a website is a unique and powerful path (that not everyone is ready for). It's the language we use to communicate with computers, and when you apply it to web design, the possibilities are limitless. You can customize every aspect of your website, just like the big companies do. This skill can set you apart when looking for clients or job opportunities. If you want to learn more about coding and how to get started, click the link below!

Resources.

This sounds a bit complicated, and to be honest, it can be overwhelming, especially at the beginning but luckily, there are so many amazing resources and ways to learn how to code.

One of the most used platforms to learn to code for websites is called “w3schools” – <https://www.w3schools.com/> – is very interactive, with so many explanations, examples, quizzes, and activities parts that are designed to learn code. The best part of this site is that is free!! They offer courses and you can also track your progress when you create an account. You can also revisit the topics you went through before if you need to reinforce some skills or knowledge. Another site that is very helpful when starting to learn coding is <https://codewithmosh.com/>, he has a YouTube Channel as well and everything is well explained, he covers many different coding topics, the format of the site and his videos are clean and organized, is easy to understand, and presents different exercises that allow you to practice your coding skills.

When it comes to making mistakes in our coding work, we can use this page called “W3C” - <https://validator.w3.org/> - this is a code evaluator that can help to identify mistakes on the code,

it will tell you in which line you have a mistake and if you do not understand the results, you can look up the mistake on the browser to find more information about it and being able to fix it.

Here is another great tool for people like me, that loves listening to podcast, is called Compressed, a podcast about web design and development by James Q Quick and Amy Dutton <https://www.compressed.fm/> . They have so many useful resources, a website with courses, and experts on different design topics that talk about everything related to the industry.

Finally! We need to mention Visual Studio Code, thus is a popular integrated development environment (IDE) that provides a user-friendly interface for coding , that means that you can create your website on this app, it also offers helpful features like code highlighting, debugging tools, and a preview of your website as you create it. It's an awesome choice for web development. You can download VS Code here: <https://code.visualstudio.com/> .

Sitemap

Figure 3

Website Colors

Figure 4

Conclusions

This project has provided valuable information on the different ways of approaching the process of developing a website, as well as their advantages and disadvantages. In the following, each of the conclusions obtained will be detailed, delving into each of the types of approaches that were analyzed throughout the project.

First of all, let's talk about the quiz. In a world where the internet is an essential part of our lives, creating a website that suits your needs and preferences is more critical than ever. The interactive quiz, simplifies the complex decision-making process by providing personalized recommendations in just 10 questions. It's a thoughtfully designed tool aimed to deliver meaningful results while keeping you engaged throughout the process.

The quiz approach ensures that you not only find the right solution but also gain the knowledge and resources necessary to embark on your website-building journey. So, whether you're a coding novice, a design enthusiast, or an aspiring web developer, this website has you covered with the ideal path to website creation, Website Builder, Content Management System platforms, or Coding.

The Website builder programs are mainly focused in the drag and drop format, which prioritizes the display of the elements that make up a web page more accurately, without the need to know the language for coding (yet some Website Builders allow us to modify the web page structure manually through the use of codes). That is to say, as creators, we have control when deciding what type of objects or images should or should not be included. You can find stock media in most, if not all of the Website Builders.

It is for this reason that these types of programs can get you out of trouble as a web designer. Besides that, if you have a small business, a type of e-commerce business where the main focus is to sell products or subscription programs, it is much more functional to rely on this type of program, especially if you don't have much time to create a website or when the company is already working. This since you do not need to invest in a designer to develop your website. They are very easy to understand and manipulate on one's account without being experts, it is a fairly intuitive process. It is all this that makes the time invested much less than any other way of developing a website.

However, it is important to consider that there are certain disadvantages, which are related to the lack of freedom offered by these sites. Most of these types of programs, if not all, work with Templates, that is to say, with prefabricated designs to facilitate the work. This can be seen as a great advantage, yet, if you do not know the terms of design, even if the information is good, it still could not look aesthetically pleasing and properly organized.

In addition to this, many programs are free, and giving you this option implies that many times you must leave their watermark, which represents a great distraction to appreciate the main information you want to emphasize and can make the site look less professional. Nevertheless, if you decide to pay for a subscription, it may even represent a larger investment than relying on a graphic designer. Although it should be taken into consideration the amount services offered with this type of subscription, such as the hosting, place to build the website, tools, and security.

Furthermore, it is necessary to address the topic of Content Management Systems (CMS), which are the platforms that allow us to modify the content of a website in a freer manner. We can decide whether to use a more interactive way to personalize our content or to use coding to modify

more specific items of it. It is a middle point between Website builder programs and the development of web pages through coding. As it involves more difficulty than simply resorting to a template, but still being easier than getting completely involved with coding.

This is an advantageous option for people who have a little bit of an approach to coding since having the opportunity to make modifications directly with code achieves much better results. Having this alternative allows you to be much more creative, since you can manipulate the elements of the web page in a more detailed way, than doing it in a Website Builder as you are not taking a template as a reference (there are some of these programs that do have templates but the options are still more varied).

It represents an opportunity to make more specific changes to the structure of the web page, that is to say, to go beyond dragging objects or images. However, it is good to also know that it is not specifically necessary to have this kind of knowledge, as you still have the option to follow a more intuitive process or a drag-and-drop format with a faster processor.

As for the disadvantages, first of all, it is clear that choosing this option to develop a website takes much more time and involves more skills, as it is an additional coding process. Before starting with the creative process it is essential for these programs to previously have a hosting provider, the platform does not give you one. That is to say, you must have your domain to be able to have the possibility of making a design in these platforms and to save the modifications of the page.

It can be stated that Content Management Systems (CMS) are a great option for creating blogs or sites where the information shared is the main part of the whole website, and it is hoped to be changing constantly. This since it involves better site performance in general, as it is a faster

and optimized processor, but also as it provides better Search Engine Optimization (SEO), which helps you to be well positioned on research important platforms such as Google.

Finally, the last of the options for the development of a website considered in this project is through Coding. It consists of a programming language used by computers, which works as a means of communication between people and computers. Knowing the coding language allows us to give instructions to computers so they can execute them on the server. It is because of all this complexity that it can be compared to learning a new language. Certainly, it is complicated at first, but in the end, it is like any new skill you acquire, it takes time and some effort, but once you master it and keep practicing, many possibilities open up.

To develop a web page through codes, it is necessary to previously have a host and then develop the web page through an application, such as Visual Studio in which you only have to write the codes. Now, when coding and using the option of an open live server, you can visually perceive all those codes used in the process converted into an actual site that makes sense for the user. It gives you a graphical visualization of what the web page looks like, which is a very advantageous option since you can constantly evaluate your progress.

The biggest advantage of choosing this option once you have mastered the coding language is that it is highly customizable, since knowing the codes that make up the programming of a website allows you to modify any detail, even the smallest one. You have total control and freedom over what you want your website to represent.

However, Coding implies recognizing numerous disadvantages, since it requires much more skill and time invested than the other two options. First of all, you have to have time and preparation to learn this new language and, consequently, to execute it and develop the website.

Being code-based, this way of creating the web page goes beyond what we can start to see on the screen.

Another difficulty to consider is that many beginner mistakes are made when coding, and once they occur, it can be challenging to rectify the errors. The good news is that there are platforms available to facilitate error identification, pinpointing the exact line where the mistake is located. Though it remains a challenging process to comprehend, with increased familiarity, it becomes easier and more natural to resolve these errors. Once more, it is essential to underscore the importance of practice, as well as a proper documentation and organization process.

Finally, it is essential to recognize that this method can be quite tedious during the whole creation process and even when we finish and want to upload our website to the server. To upload our web page to the server it is necessary to enter the host we are working with, go to the cPanel, and upload the documents to the File Manager. These documents must be very well organized in folders that meet the requirements so that they can be exported correctly. Therefore, it is essential to keep all the elements used in the process in order, as this may imply that certain elements are displayed or not.

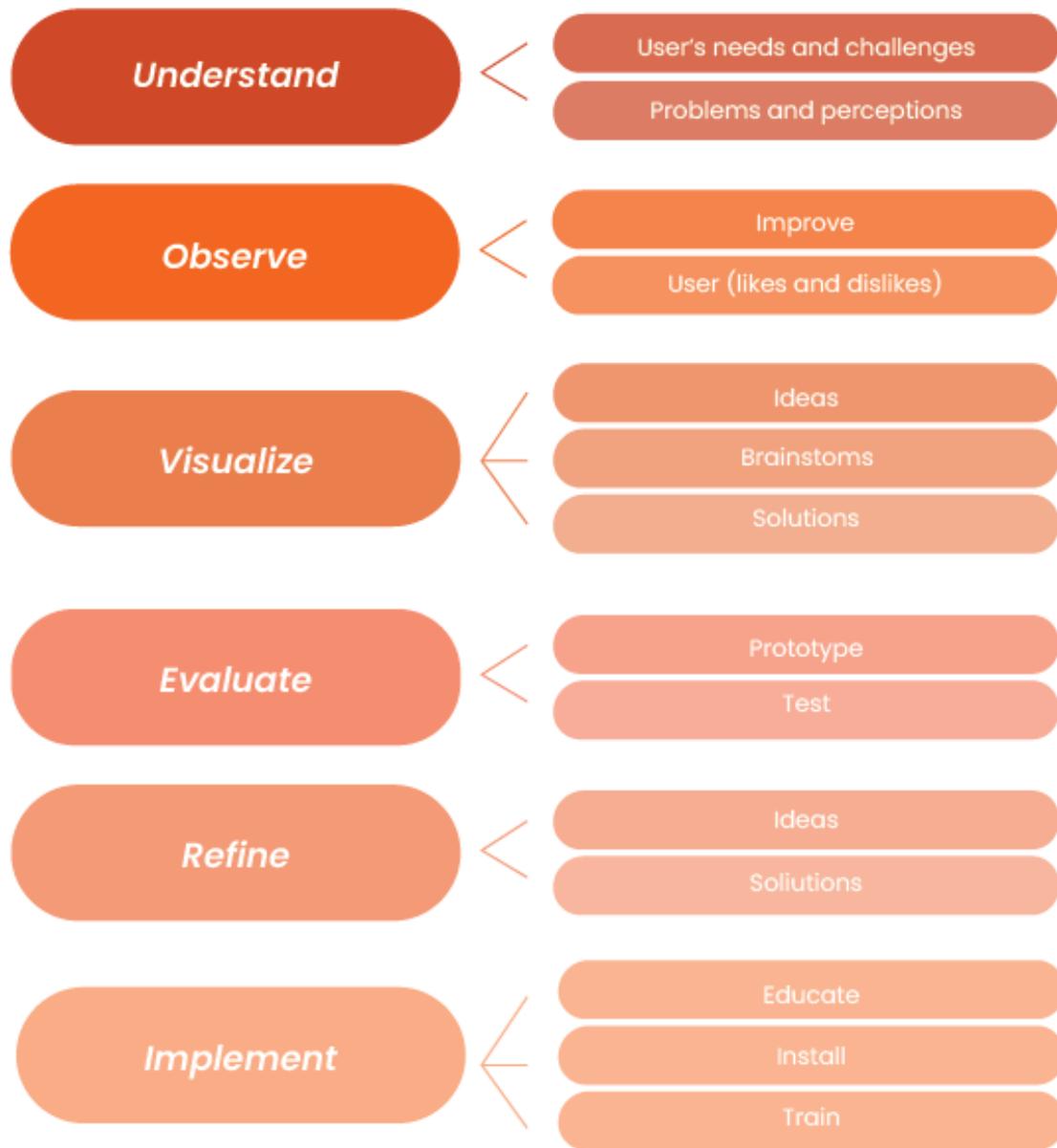
Since it involves much more knowledge and skills, the development of a page through coding is recommended for people who are already in the field of graphic design at least, and who want to start dabbling in web design. This is because having a basic knowledge of design allows us to concentrate more on the coding part, and less on trying to combine colors, figures, and graphic structures. Therefore, for someone without knowledge in this area, it would be a double effort to consider, so you should start developing a website in a much less complicated way, as are the other options.

It is important to know how to recognize the type of audience to be targeted by each type of approach to the creation of a website. Website builders, in my opinion, are recommended for people who want to create a personal website, such as a simple blog or a portfolio of work. Projects for which it is not essential to have a lot of time, and money or to worry a lot about the design or optimization of the site. On the other hand, CMS platforms are useful for people who need to develop a more professional blog, a website for a simple local business, or one that is just starting, as it can be one of the cheapest and most functional options. Finally, coding needs to be used to develop websites for much larger companies, such as Amazon or YouTube, if you consider both the type of investment and time they have, as well as the much more personalized media they want to reflect their consumers.

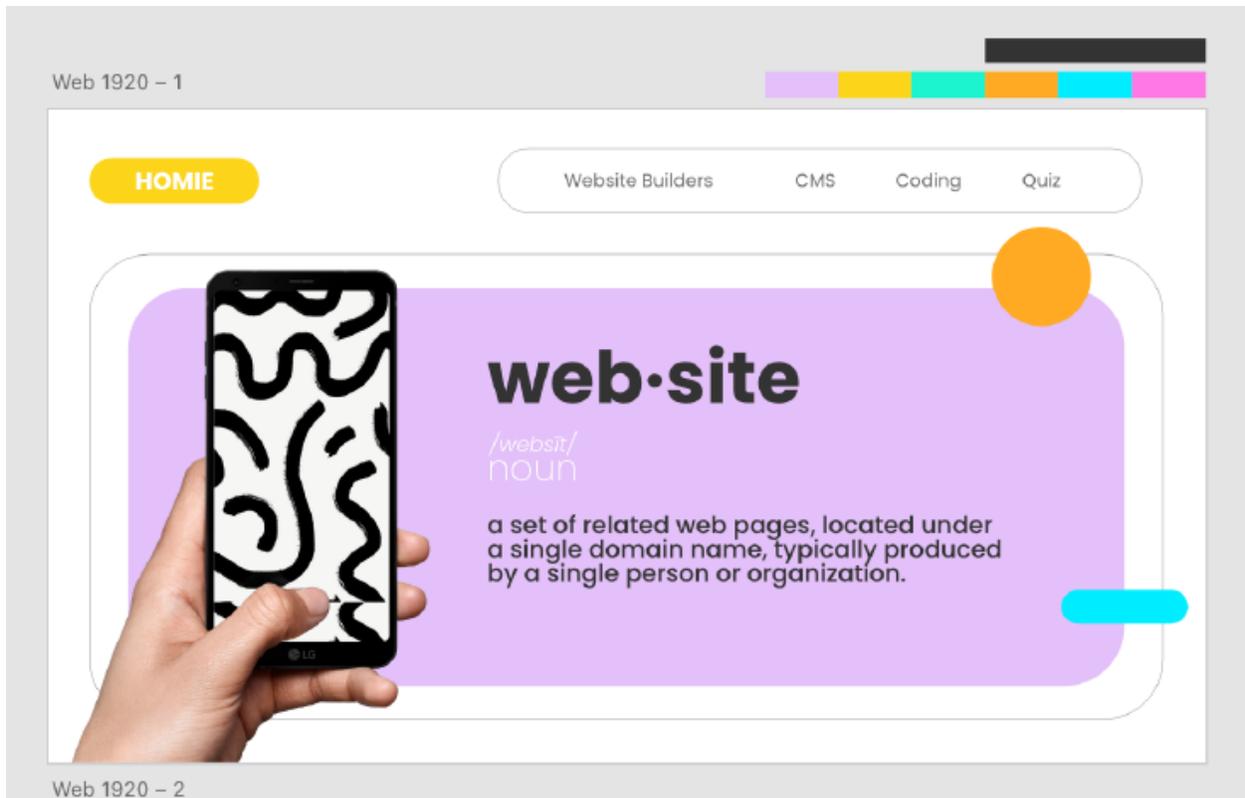
Furthermore, it is crucial to recognize that when choosing any of these options, there is always the advantage that if you are unsure about how to perform a task or need to implement a specific feature on your website that you are unfamiliar with, you can turn to the internet for the answers you need. These tools and platforms have been in use for an extended period, so any mistakes you encounter have likely been made by someone before, and fortunately, they have found solutions. In the end, no matter which option you select, you can always find support and guidance on the internet.

In conclusion, it is imperative to understand, research, or possess prior experience in design to ensure the website's optimal development. Utilizing any website builder, CMS platforms, or resorting to coding does not guarantee the creation of a well-crafted website. While building a website from scratch is possible, lacking knowledge, experience in web design, or failing to invest time in research can result in websites that lack both aesthetic appeal and functionality.

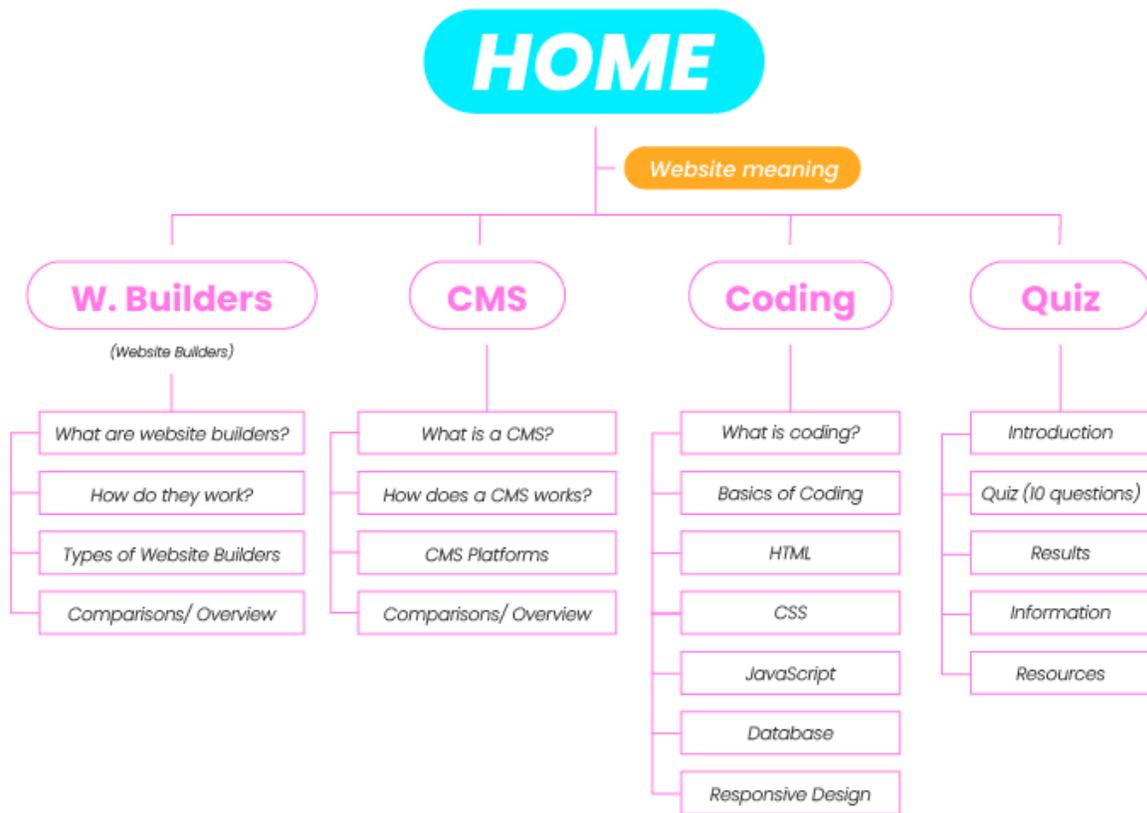
Ultimately, there is no universally right or wrong answer for everyone; there exist various methods and resources that individuals can employ to develop a website. Each person possesses unique skills and resources, making it extremely important to choose the approach that best aligns with their specific needs and capabilities.



“Design Thinking, the Ideal Method in Five Steps”, Nahomy Calderon, 2022.



Example for the website information, Nahomy Calderon, 2023.



Sitemap for the website, Nahomy Calderon, 2023.



Website colors, Nahomy Calderon, 2023.

A Quick Comparison

WordPress vs Joomla vs Drupal vs Wix vs Squarespace vs Medium



Ease of use: One click installation and drag & drop content management
Cost: Free. You need to spend only on hosting and further customization
Customization ability: Unlimited customization opportunity
Performance: One of the best. Over 30% websites now rely on WordPress
Security & SEO: Easy security managing and extremely SEO friendly



Ease of use: Quick installation but not as beginner-friendly as **WordPress**
Cost: You need to spend on domain, hosting, design and maintenance...
Customization ability: You can customize as you need
Performance: Joomla taken 2nd place after WordPress in many surveys
Security & SEO: Excellent support, security and also good in SEO



Ease of use: Drupal isn't so beginner-friendly, it's specially for developers.
Cost: Free but needs people who have enough technical knowledge
Customization ability: Available options with required budgets
Performance: Better for complex or advanced level websites
Security & SEO: Security is an issue with Drupal, others are far better



Ease of use: Easy and quick installation for even non-technical people
Cost: Different plans from free to premium.
Customization: As a cloud based solution, Wix has limited options
Performance: Better among other cloud based CMSs
Security & SEO: Offers excellent support, security & it's good in SEO



Ease of use: Easy setup wizard
Cost: Started from \$12 monthly package
Customization ability: Not unlimited but it offers enough customization
Performance: Good, both in content managing and editing
Security & SEO: Security is good but SEO is an issue with Squarespace



Ease of use: As a publishing platform, medium is extremely easy to use.
Cost: Free to submit your contents. Need to pay To subscribe as a reader
Customization ability: Nothing to do by yourself, Medium manages all
Performance: It's one of the best content publishing platforms

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