“Rincón Ganadero” Website

Congress website

Author: **José Antonio Chaírez Pantoja**

Enrollment Key: **2003151338** Group: **7A BIS**

External Advisor: **Oscar Díaz**

Academic Advisor: **M.A Felix Acosta Hernandez**

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INTRODUCTION

Web pages have provided restaurants with a platform to showcase their menu, accept orders and reservations, and communicate with customers. They have also made it easier for customers to find information about restaurants, place orders, and share their experiences. This has not only increased convenience for customers but also helped restaurants better manage their operations and improve their services. In this article, we will explore in detail the ways in which web pages have helped improve restaurant services.

Web pages have revolutionized the way restaurants do business. They allow restaurants to reach a wider audience, showcase their menu, communicate their hours of operation, and offer online ordering and reservations. Having a professional-looking website can also help restaurants establish credibility and attract new customers.
The rise of the internet and the proliferation of web pages have had a profound impact on the restaurant industry, changing the way restaurants operate and improving the customer experience. Web pages have provided restaurants with a platform to showcase their menu, accept orders and reservations, and communicate with customers. They have also made it easier for customers to find information about restaurants, place orders, and share their experiences. This has not only increased convenience for customers but also helped restaurants better manage their operations and improve their services. In this article, we will explore in detail the ways in which web pages have helped improve restaurant services.
Customers can easily browse the menu, view photos of dishes, and get an understanding of the restaurant's atmosphere and ambiance, all from the comfort of their own home. This not only saves them time, but it also makes the dining experience more convenient.

CHAPTER I REFERENTIAL FRAMEWORK

1.1 Company overview

Rincón Ganadero is a steak restaurant from Durango. They have been in business since 2014, and they have grown in both popularity and efficiency in the last years.
It is ubicated in the 20 de Noviembre street and it has quickly become really popular in the community.

1.2 Current situation of the process/activity

Despite the fact that the Covid-19 pandemic caused a decrease in meat consumption, the Mexican industry managed to increase production last year between 2 and 3%.

This situation presents the challenge of improving its positioning and reaching the consumer under the new consumer trends, assured the president of the Mexican Meat Council, Ernesto Hermosillo Seyffert.

In an interview with Forbes Mexico, the representative of the sector highlighted that in 2020 they represented 23% of the GDP production of the food industry and 32% of the agri-food industry, in addition to generating around 80,000 jobs in the country, generating a spills economy of 326 billion pesos.

Lee: Kuo will invest 2 billion pesos in a pork processor in Yucatan

"Due to the process that was experienced, there was greater consumption and demand, we had a year where there was growth, approximately between 2 and 3% depending on the industry (chicken, pork or beef)," said the newly appointed president of the Council.

However, the demand for beef fell 0.2% and pork, 2.7%, while chicken registered a growth of 1.6%.

In this sense, he pointed out that, being a food industry, staying at home was not an option, so they had to implement all the required sanitary measures in their plants, with check-ups on their staff up to twice a day to reduce the risks.

Hermosillo Seyffert assured that this 2021 they will continue with the hygiene measures, since one of his main objectives is to protect his collaborators; but this year they will also seek to promote new value propositions.

He stressed that with the new reality, consumers must be served with different products, at different times, since the ways of buying have changed in Mexico.

"We are going to explore a lot the opportunities of this new reality in terms of the apps and applications that we could offer our consumers, agility in the supply chain," said the director of the Management Model at Grupo Bafar.

Likewise, he considered that the industry has to work to strengthen the legislation and standards of the sector, develop local supply, maintain and increase its

international supply sources to be able to put it into the chain, have close links with the academy, in addition to the positioning of meat protein to consumers.

However, he noted that production in general has grown on average 3.5% annually in recent years, while imports have increased 1.7%.

"Our value chain is not stable, we do not produce what we consume, we have to make certain imports with which we could not be, we would have a series of price, quality and safety increases."

And it is that, he stressed, Mexican meat is a guarantee of quality and safety, it also has certifications, which gives it recognition in the countries to which it is exported.

"What we have to do is continue working on collaborations in terms of foreign trade with the countries, certification of plants so that they can receive the products," he said.

"A more open industry, much more competitive than what we have today, very connected, the country must continue working on agreements, treaties, lowering tariffs, opening up to international trade and with that the value chain must be stable and competitive."

The leader of the Mexican Meat Council stressed that the country has an advantage due to its geographical location, the number of trade agreements, microclimates, health status and, above all, the workforce.

1.3 Statement of the problem

The restaurant is looking for a way of implementing a virtual menu. This will help them promote their products online to potential customers, and it will also allow the customers to see the menu in a digital way. Another problem is that they also want a way of accepting reservations digitally, so that clients have more options to contact the restaurant.

1.4 Rationale or Justification of the study

Developing a website for a restaurant can be justified for several reasons:

1. Online Presence: In today's digital age, having a website is essential for any business. A restaurant website can provide an online presence and increase its visibility to potential customers.

2. Information Access: A restaurant website can provide customers with easy access to important information, such as the menu, operating hours, location, contact information, and special promotions or events.
3. Convenience: A website can offer convenient options such as online reservations, ordering takeout or delivery, and making payments.
4. Branding: A website can serve as an extension of a restaurant's branding efforts. Through consistent use of visual design and messaging, a website can help build and reinforce a restaurant's brand.
5. Competitive Advantage: A well-designed website can give a restaurant a competitive advantage by showcasing its unique offerings, showcasing positive reviews and testimonials, and highlighting the restaurant's best features.

In summary, a website for a restaurant is essential for online presence, providing information access, convenience, branding, and a competitive advantage.

1.5 General Objective

Develop a website for the restaurant "Rincón Ganadero" with which it will seek to improve the customer experience when generating invoices and making reservations

1.5.1 Specific Objectives

- **Host and deployment of the website:** Upload the page to the server and upload it to the internet
- **Create a file upload system:**Development of a system to save pdf documents within the database.
- **Backup of the databases:**Generate backups of the database in case a mishap happens to be able to recover the data
- Email delivery system programming:
- Development of session system for users
- Email delivery internal testing
- Email delivery external testing
- General maintenance of the server

CHAPTER II. THEORETICAL FRAMEWORK

In this chapter, the background of the company will be discussed, as well as the basic concepts that were used for the development of this internship project.

2.1.- Referential framework

It is important to contextualize the environment in order to understand the aspects that will be included in this project:

2.2.1. Industry of meat cuts in Mexico

In Mexico there is a production of more than 6.5 million tons of meat, with a value of 300 billion pesos. These figures occur mainly between chicken, pork and beef. This makes this industry a considerable income high in the Mexican economy.

Due to the growth within the meat industry, Mexico ranks seventh in production of the main meat proteins (poultry, pork, bovine) in the world.

Thanks to this growth, according to INEGI data, the meat industry is capable of employing more than 800,000 people. This has caused unemployment in Mexico to decrease and the economy to improve.

The progress of the meat business within the food industry in Mexico has allowed some states to become leaders in this industry. Veracruz has managed to position itself as a large producer of beef and chicken. Sonora is the leader in the pork market and Jalisco has extensive production in beef, chicken and pork.

The growth in the meat industry has led the Government of Mexico to expand the basic basket from 23 to 40 products. Among these 17 products that were added we find beef, chicken and pork. This change in the basic food basket will help the Mexican people improve their quality of life considerably.

In Mexico, more than 8 million tons of meat are consumed. It should be noted that Mexican meat has been recognized worldwide for its quality and safety. With the growth of the meat industry, added to the quality of the meat it offers, this progress in this sector will continue to increase.

2.2.2. Design

A design is a plan or specification for the construction of an object or system or for the implementation of an activity or process or the result of that plan or specification in the form of a prototype, product, or process. The verb to design expresses the process of developing a design. In some cases, the direct construction of an object without an explicit prior plan (such as in craftwork, some engineering, coding, and

graphic design) may also be considered to be a design activity. The design usually has to satisfy certain goals and constraints; may take into account aesthetic, functional, economic, or socio-political considerations; and is expected to interact with a certain environment. Typical examples of designs include architectural and engineering drawings, circuit diagrams, sewing patterns, and less tangible artifacts such as business process models. (Cambridge, s.f)

Generally speaking, it is the process of envisioning and planning the creation of objects, interactive systems, buildings, vehicles, etc. It is about creating solutions for people, physical items, or more abstract systems to address a need or a problem. It is a very broad concept and its meaning can greatly vary from one field to another. It and permeates many aspects of our lives and branches out into many different subgenres, from product design, sound, virtual reality, interaction, to designing cars, video games, etc. Schools adapted to the market's evolution accordingly by creating graduate and postgraduate programs in Design. (Strate, 2021).
Coyne(1990) expresses that “Substantial disagreement exists concerning how designers in many fields, whether amateur or professional, alone or in teams, produce designs”

Design researchers Dorst and Dijkhuis acknowledge that "there are many ways of describing design processes", and compare and contrast two dominant but different views of the design process: as a rational problem-solving process and as a process of reflection-in-action. They suggested that these two paradigms "represent two fundamentally different ways of looking at the world – positivism, and constructionism". (Dorst., Dijkhuis., Judith., 1995)

Brooks (2010) posits that “The paradigms may reflect differing views of how designing should be done and how it actually is done, and they both have a variety of names. The problem-solving view has been called the rational model”.

“Design is a discipline of study and practice focused on the interaction between a person and the man-made environment, taking into account aesthetic, functional, contextual, cultural, and societal considerations. As a formalized discipline, design is a modern construct”. (theicod, s.f)

Moses (2020) mentions that the design doesn’t have to be original: “It’s a common misconception that novelties and hype in design will sell a product. The only reason conventional and textbook design patterns exist is because

2.2.3. Host

A hosting is an online service that makes your website accessible on the Internet. When you get hosting, you basically rent space on a server that stores all the files and data for your website in order for it to function properly.

Web hosting providers provide the technology and resources necessary for your website to function efficiently and securely. These are responsible for keeping the server running, applying security measures and ensuring that data such as texts, photos and other files are transferred correctly to visitors' browsers.

2.2.4. SQL

The history of SQL begins in 1969, when IBM researcher Edgar F. Codd defined the relational database model. That model is based on the association of "keys" with various data. For example, a username can be associated with a real name and a phone number.

A few years later, IBM created a language for relational database management systems based on Codd's work. That language was first called SEQUEL, an acronym for “Structured English Query Language” and after several implementations and revisions, it was renamed SQL.

Testing began in 1978, and then IBM began developing commercial products such as SQL/DS in 1981 and DB2 in 1983. Other vendors followed, such as Sybase, Ingres, and Oracle, which released its first product in 1979.

How does SQL work?
Applications can be programmed with different languages such as Python, PHP or Ruby. However, historically, databases do not understand those languages. Until recently, they only understood SQL (although things have changed a lot in the last few years).

This is the reason why learning SQL is essential to work in the fields of application development or web development. Before you can use it, you need to learn its markup.

This is valid for all programming languages. On the other hand, SQL has a unique feature that distinguishes it from other languages: the concept of tables.

In fact, a database is made up of tables. Each of those tables is made up of columns and rows, and represents a set of data. Therefore, SQL allows you to create or manipulate tables.

When working with databases, various SQL commands are frequently used. For example, "CREATE DATABASE" allows you to create a database, "CREATE TABLE" allows you to create tables.

The "SELECT" command is used to search or extract data from a database. “UPDATE” allows to adjust or edit data and “DELETE” allows to delete some data.

These are just a few examples of very commonly used commands, to give you a general idea of how SQL works. The more complex the database, the more commands the user will have to use.

Those commands allow you to write "queries" to manipulate data in databases. The system interprets and processes these commands, for example, to create a new record in a database.

As we are developing our web page, we use it mainly to develop our database and with it make our queries, apart from the fact that it was very helpful when making the Back-end since with it we could make queries using "SELECT" that helped us to have control of the users who could register for each specific workshop.

At the time of the development of the page I almost did not implement Front-end since I focused on the Back-end so that the client could connect to the server and consequently register

2.2.6. Backend

While the frontend is the programming layer executed in the user's browser, the backend processes the information that will feed the data frontend. It is the data access layer, whether from software or a device in general, it is the technological logic that makes a web page work, which is hidden from the visitor's eyes. The backend of a solution determines how well the application will run and what experience, positive or negative, the user will get from using it. Working in this section involves something completely different from the frontend, since it requires the mastery of other programming terms, languages that require logic, since this area is also responsible for optimizing resources, the security of a site and other factors. (García, 2021)

Arjonilla (2019) Mentions that the backend is the part of web development that is responsible for all the logic of a web page to work. It is the set of actions that happen on a website but that we do not see, for example, the communication with the server. The work of the back end is more logical, rational and less creative. For that reason, the one who designs the outside seems to be cooler. However, they can't live without each other and I'm sure that if you talk to a back-end developer they will tell you how creative it is to know how to program well.

Martin (2022) states that Back-end Development refers to the server-side development. It focuses on databases, scripting, website architecture. It contains

behind-the-scene activities that occur when performing any action on a website. It can be an account login or making a purchase from an online store. Code written by back-end developers helps browsers to communicate with database information.

“The back-end, also called the server-side, consists of the server which provides data on request, the application that channels it, and the database which organizes the information”. (Concepta, s.f)

Not until too long ago, server-side rendering, or back-end web development, was the de facto way to create websites and web applications. You visit a page, send a request for content, the server processes this request and creates a response that is sent back to your browser. (Pastorino, 2021)

2.2.7. Domain Name System

The domain name system (DNS) is a naming database in which internet domain names are located and translated into Internet Protocol (IP) addresses. The domain name system maps the name people use to locate a website to the IP address that a computer uses to locate that website.

For example, if someone types "example.com" into a web browser, a server behind the scenes maps that name to the corresponding IP address. An IP address is similar in structure to 203.0.113.72.
Web browsing and most other internet activities rely on DNS to quickly provide the information necessary to connect users to remote hosts. DNS mapping is distributed throughout the internet in a hierarchy of authority. Access providers and enterprises, as well as governments, universities and other organizations, typically have their own assigned ranges of IP addresses and an assigned domain name. They also typically run DNS servers to manage the mapping of those names to those addresses. Most Uniform Resource Locators (URLs) are built around the domain name of the web server that takes client requests. (Lutkevich & Burke, 2021)

2.2.9. Software testing

Hamilton (2022) adds that Software Testing is a method to check whether the actual software product matches expected requirements and to ensure that software product is Defect free. It involves execution of software/system components using manual or automated tools to evaluate one or more properties of interest. The purpose of software testing is to identify errors, gaps or missing requirements in contrast to actual requirements.

Testing is a method to check whether the actual software product matches expected requirements and to ensure that software product is Defect free. It involves execution of components using manual or automated tools to evaluate one or more properties of interest. The purpose of software testing is to identify errors, gaps or missing requirements in contrast to actual requirements. Even a simple application can be subject to a large number and variety of tests. A test management plan helps to prioritize which types of testing provide the most value given available time and resources. (IBM, s.f)

2.2.10. Software maintenance

“Software Maintenance is the process of modifying a software product after it has been delivered to the customer. The main purpose of software maintenance is to modify and update software applications after delivery to correct faults and to improve performance”. (Geeksforgeeks, 2021)

“Software maintenance in software engineering is the modification of a software product after delivery to correct faults, to improve performance or other attributes.” (Soleimani., Babamir., Aritsugi., 2020)

Pigoski (1997) indicates that “A common perception of maintenance is that it merely involves fixing defects. However, one study indicated that over 80% of maintenance effort is used for non-corrective actions”.

Software maintenance is a vast activity which includes optimization, error correction, deletion of discarded features and enhancement of existing features. Since these changes are necessary, a mechanism must be created for estimation, controlling and making modifications. The essential part of software maintenance requires preparation of an accurate plan during the development cycle. Typically, maintenance takes up about 40-80% of the project cost, usually closer to the higher pole. Hence, a focus on maintenance definitely helps keep costs down. (Economictimes, s.f)

2.2.11. HTML

“Is the most basic component of the Web. It defines the meaning and structure of web content. In addition to HTML, other technologies are generally used to describe the appearance/presentation of a web page (CSS) or the functionality/behavior (JavaScript)”. (MDN, 2022)

One of the keys to the success of the World Wide Web, apart from its attractive presentation, is undoubtedly its organization and coherence. All WWW documents

share the same look and feel and a single interface, which makes them much easier for anyone to use. This is possible because HTML language not only allows links to be established between different documents, but it is a page description language independent of the platform on which it is used. In other words, an HTML document contains all the necessary information about its appearance and its interaction with the user, and it is then the browser we use that is responsible for ensuring that the document has a consistent appearance, regardless of the type of computer or workstation from which we are making the query. (Lamarca, s.f)

The average website includes several different HTML pages. For instance, a home page, an about page, and a contact page would all have separate HTML files. HTML documents are files that end with a .html or .htm extension. A web browser reads the HTML file and renders its content so that internet users can view it. All HTML pages have a series of HTML elements, consisting of a set of tags and attributes. HTML elements are the building blocks of a web page. A tag tells the web browser where an element begins and ends, whereas an attribute describes the characteristics of an element. (Hostinger, 2022)

Kolade (2021) describes that “HTML determines the structure of web pages. This structure alone is not enough to make a web page look good and interactive. So you'll use assisted technologies to make your HTML beautiful and add interactivity, respectively”.

Principalmente utilice html para generar los formularios

2.2.12. PHP

PHP is an open-source server-side scripting language that many devs use for web development.

Anyone can benefit from learning about PHP, but it is even more essential for those interested in web programming. PHP is available on all major operating systems, such as Linux, Microsoft Windows, and macOS. Most web servers, including Apache and IIS, also support PHP. One of the main benefits of using PHP is advancing the customization of a WordPress site. Other features include great online support and documentation, so even beginners can learn PHP quickly. (Hostinger, 2022)

According to Kolade (2021), the advantages of PHP are:

Cross-Platform: PHP is platform-independent. You don't have to have a particular OS to use it because it runs on every platform, whether it's Mac, Windows, or Linux.

Open Source: PHP is open source. The original code is made available to everyone who wants to build upon it. This is one of the reasons why one of its frameworks, Laravel, is so popular.

Easy to learn: PHP is not hard to learn for absolute beginners. You can pick it up pretty if you already have programming knowledge.

PHP syncs with all Databases: You can easily connect PHP to all Databases, relational and non-relational. So it can connect in no time to MySQL, Postgress, MongoDB, or any other database.

Supportive Community: PHP has a very supportive online community. The official documentation provides guides on how to use the features and you can easily get your problem fixed while stuck.

Within what I could be programming, it is very useful since that is the one that helps us so that the client can connect with the server, which is why this allows us to make queries to our database, validate our users, make data insertions of our users, return information that we can implement within our Front-end as it could be within a dashboard, apart from the fact that it helps me to solve some logical issues within the connection between the database and the Back-end, since that when wanting to register a user in a workshop, I use that they have a limit of users per workshop, apart from giving them the option of selecting a workshop in the evening shift and in the morning shift, apart from the fact that they would have the option of only select a higher one of those mentioned above.

2.2.13. JavaScript

JavaScript is a scripting or programming language that allows you to implement complex features on web pages — every time a web page does more than just sit there and display static information for you to look at — displaying timely content updates, interactive maps, animated 2D/3D graphics, scrolling video jukeboxes, etc. — you can bet that JavaScript is probably involved. It is the third layer of the layer cake of standard web technologies, two of which (HTML and CSS) we have covered in much more detail in other parts of the Learning Area. (MDN, 2022)

JavaScript is a lightweight programming language that web developers commonly use to create more dynamic interactions when developing web pages, applications, servers, and or even games. Developers generally use JavaScript alongside HTML and CSS The scripting language works well with CSS in formatting HTML elements. However, JavaScript still maintains user interaction, something that CSS cannot do by itself. JavaScript’s implementations within the web, mobile application, and game

development make the scripting language worth learning. You can do so via learning platforms like BitDegree or by exploring free JavaScript templates and applications on code hosting platforms like GitHub. (Hostinger, 2022)

According to O'Tuama (2022), the common uses of JavaScript are:

Creating interactive web pages
As discussed above, JavaScript is responsible for almost any interactions you have with a website that result in a change on the page. Without it, the web would be incredibly limited. Common interactive actions enabled by JavaScript are:

* Adding items to a basket and making purchases online
* Expanding or collapsing content blocks at the click of a mouse
* Playing video or audio files on site
* Displaying animations
* Using drop-down menus

Front end development
There are a number of popular front-end JavaScript frameworks that help websites build great applications for their users. These frameworks include Angular, React and Vue. Some famous applications built using JavaScript are Netflix, PayPal, YouTube and Facebook.

Back end development
Although JavaScript made a name for itself as a front-end language, being applied to HTML and CSS, it also has impressive qualities as a back-end development language. Frameworks such as Node.js mean that JavaScript can be used to build server-side code.

Gaming
JavaScript programming isn't just useful to standard websites. JavaScript is also responsible for most in-browser games, great for killing a bit of time or for honing your skills if you are just starting off in development.

Artificial intelligence
A relatively recent development in the use of JavasScript is in AI. Javascript libraries such as TensorFlow have allowed developers to use JavaScript for machine learning, creating models that can predict future events based on the categorisation of past data.

2.2.14. Apache

Apache HTTP Server, also called Apache, is an open source HTTP web server for creating web pages and services. It is a multiplatform, free, very robust server that stands out for its security and performance.

The Apache server is developed within the HTTP Server (httpd) project of the Apache Software Foundation.

The history of Apache dates back to February 1995, when the Apache group project began, which is based on the original NCSA application's Apache httpd server. Development of this original app stalled for some time after Rob McCool's departure.

Brian Behlendorf and Cliff Skolnick coordinated the work through a mailing list and managed to establish a shared space with free access for developers.

In 1999, the Apache Software Foundation was formed to obtain financial, organizational, and legal support for the server.

2.2.18. XAMPP

Xampp is a free software package, which deals with a MySQL database management system, the Apache web server, and interpreters for PHP and Perl scripting languages. Its name is an acronym: X, to refer to any of the different operating systems, Apache, MariaDB/MySQL, PHP, Perl.

In its version 5.6.15, Xampp changed its MySQL database to MariaDB, a fork of MySQL and with a GPL license; Without a doubt, this program is distributed under the GNU license, it is a free web server, very easy to use. In addition to the fact that dynamic pages can be interpreted with it and it is available for Microsoft Office for Windows, GNU/Linux, Solaris and Mac OS X.

3.1 Software requirement specification

Within the development of our project the specification of requirements was of great help since this allowed us to know how much was expected of the project apart from that this was of great help to organize our times.

Requesting the requirements of our project was of great help since it had several features that became somewhat complicated at the time of making them but thanks

to this, we were able to give an estimated delivery time to our client as with the part of sending emails and registering users


Norma IEEE 830

What is it?

The IEEE 830-1998 standard for SRS (ERS) is a set of recommendations for specifying software requirements or requirements.

What is it for?

The main purpose of this standard is to help us prepare a very useful document: the ERS (Software Requirements Specification) and this in turn is intended to document the agreements between the client and the development group in order to comply with all the stipulated requirements.

Who created it?

The 830-1998 standard was generated by the IEEE's Software Engineering Standards Committee.

Figure 1(Software requirement document)

3.2 Desing and software architecture

The next phase of our project is the development within the design and architecture of our project, mostly within what I was developing was backend so I mainly took care of the structure that could carry our database. Mainly to develop the structure of the database I use Phpmyadmin that mainly generates it automatically when I configure my database

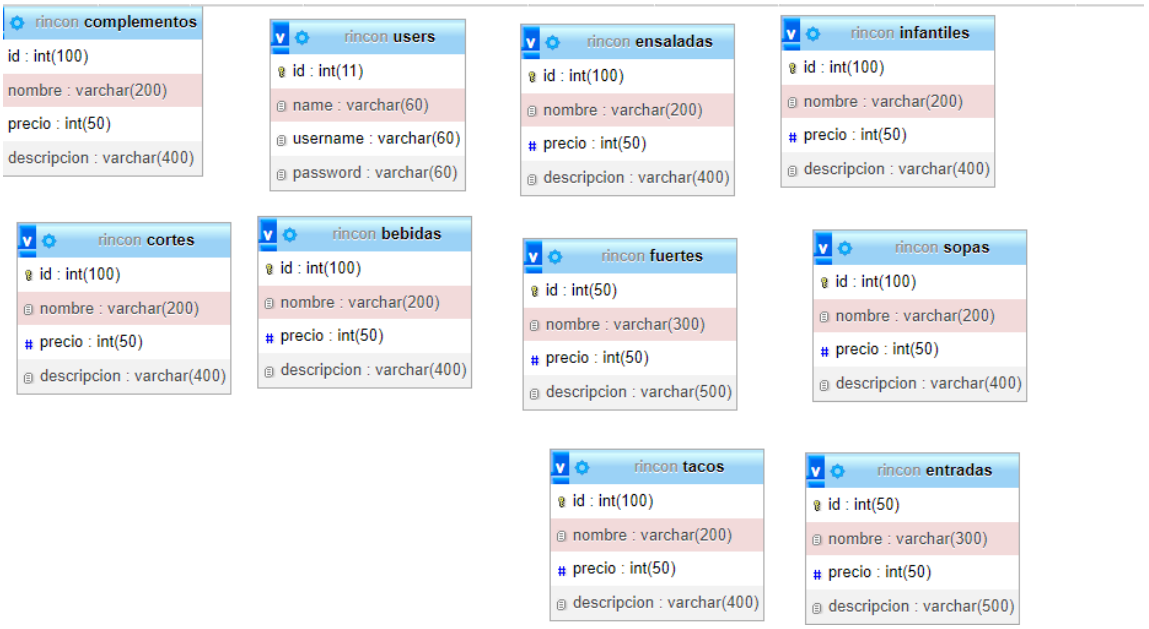

Figure 1 (Database)

3.3 Coding and testing

Within this section of the page we generate the table that shows us the records of the database in addition to having the buttons to add new record, edit and delete record

```
<tbody>
    <?php
        while($row=mysqli_fetch_array($query)){
    ?>
        <tr>
            <th><?php  echo $row['id']?></th>
            <th><?php  echo $row['nombre']?></th>
            <th><?php  echo $row['descripcion']?></th>
            <th><?php  echo $row['precio']?></th>
            <th><a href="actualizar.php?id=<?php echo $row['id'] ?>" class="info">Editar</a></th>
            <th><a href="delete.php?id=<?php echo $row['id'] ?>" class="danger">Eliminar</a></th>
        </tr>
    <?php
        }
    ?>
    <a href="datos.php" class="insert">Agregar nuevo registro</a>
```

Figure 2 (Table of records)

Within this part of the code we refer to the update forms, for this we make a call to the database to show us the data that are stored within the database and we make an update query to update the data

```php
<?php
    include("conexion.php");
    $con=conectar();

$id=$_GET['id'];

$sql="SELECT * FROM tacos WHERE id='$id'";
$query=mysqli_query($con,$sql);

$row=mysqli_fetch_array($query);
?>
```

Figure 3 (Database connection)

```php
<div class="login-page">
  <div class="form">
    <form action="update.php" method="post" class="login-form">
    <input type="hidden" name="id" value="<?php echo $row['id']  ?>">
    <h4>Nombre</h4>
    <input type="text" class="form-control mb-3" name="na"  value="<?php echo $row['nombre']  ?>">
    <h4>Descripción</h4>
    <input type="text" class="form-control mb-3" name="descriptio" value="<?php echo $row['descripcion']  ?
    <h4>Precio</h4>
    <input type="text" class="form-control mb-3" name="cost" placeholder="Precio" value="<?php echo $row['p
      <button type="submit" name="register" id="enviar" value="Actualizar">Enviar</button>
```

Figure 4 (Form for updating data)

```php
<?php

include("conexion.php");
$con=conectar();

$id=$_POST['id'];
$name=$_POST['na'];
$description=$_POST['descriptio'];
$cost=$_POST['cost'];

$sql="UPDATE tacos SET  nombre='$name',descripcion='$description',precio='$cost' WHERE id='$id'";
$query=mysqli_query($con,$sql);

    if($query){
        Header("Location: tacos.php");
    }
?>
```

Figure 5 (Update)

The button to remove sends us to the next section of code which allows us to delete records from the database

```php
<?php

include("conexion.php");
$con=conectar();

$id=$_GET['id'];

$sql="DELETE FROM tacos  WHERE id='$id'";
$query=mysqli_query($con,$sql);

    if($query){
        Header("Location: tacos.php");
    }
?>
```

Figure 6 (Delete)

Then what we did was call the PHPmailer library that did not allow the connection with the electronic mail service apart from configuring the necessary fields to work correctly such as mail, password, host and email addresses that we wanted it to reach.

```php
try {
    //Server settings
    $mail->SMTPDebug = 0;                      //Enable verbose debug output
    $mail->isSMTP();                                            //Send using SMTP
    $mail->Host       = 'smtp.gmail.com';                     //Set the SMTP server to send through
    $mail->SMTPAuth   = true;                                   //Enable SMTP authentication
    $mail->Username   = 'rinconganadero2023@gmail.com';                     //SMTP username
    $mail->Password   = 'rincon2022$';                               //SMTP password
    $mail->SMTPSecure = PHPMailer::ENCRYPTION_SMTPS;            //Enable implicit TLS encryption
    $mail->Port       = 465;                                    //TCP port to connect to; use 587 if you have se

    //Recipients
    $mail->setFrom('rinconganadero2023@gmail.com', 'Rincon ganadero');
    $mail->addAddress($email,'rinconganadero2023@gmail.com');     //Add a recipient campiar por correo de articu
```

Figure 7 (Conexion with SMTP and email)

Within this section of code is where we will generate the message that will be sent to the mail, in this we save the values of our variables

```
$mail->WordWrap = 50;
$mail->IsHTML(true);
$mail->Subject  =  "Registro de reservación";
$mail->Body     =  "\n<br /> Detalles de la reservación
\n<br /> Nombre del propietario: $nombre \n<br />".
"Descripción de la reservación: $descripcion \n<br />".
"Fecha de reservación: $fecha \n<br />".
"Hora de reservación: $hora \n<br />".
"Email del propietario: $email \n<br />".
 $mail->AddAttachment($archivo['tmp_name'], $archivo['name']);
```

Figure 8(Get the data of our variables)

Within this part is implementing the Whatsapp API

```
<br><a href="https://api.whatsapp.com/send?phone=526183101927&text=" target="_blank">
```

Figure 9 (Whatsapp API)

4.0 Result

As we can see within our page we obtained the expected results that we had to perform since we expected the api to connect with Whatsapp worked as we needed. On this occasion we chose to host our page in Hostinger

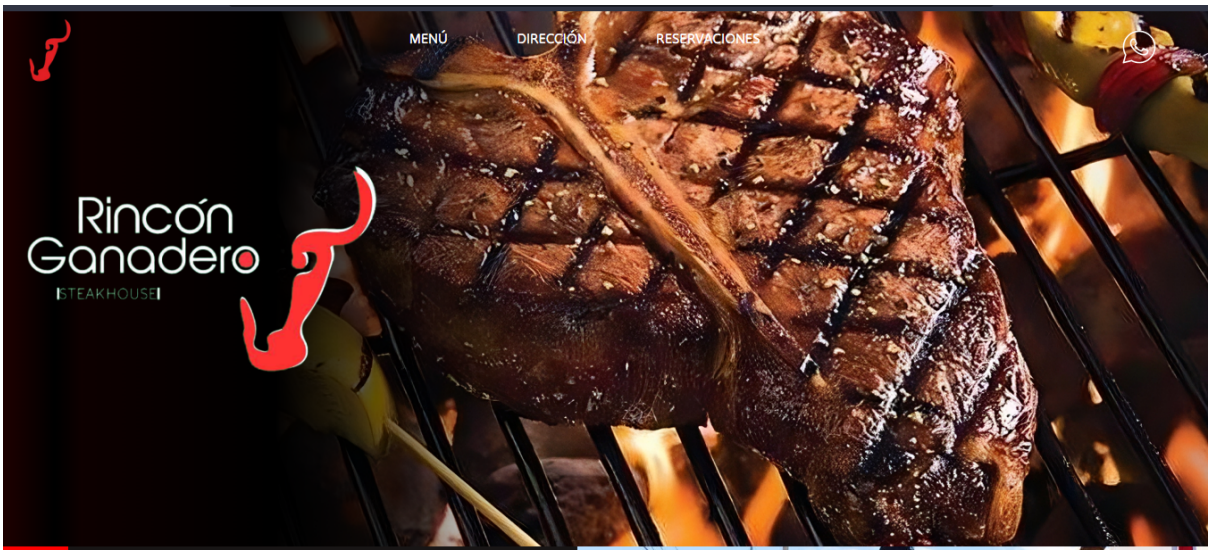

Figure 10 (Main page)

Figure 11 (CRUD)

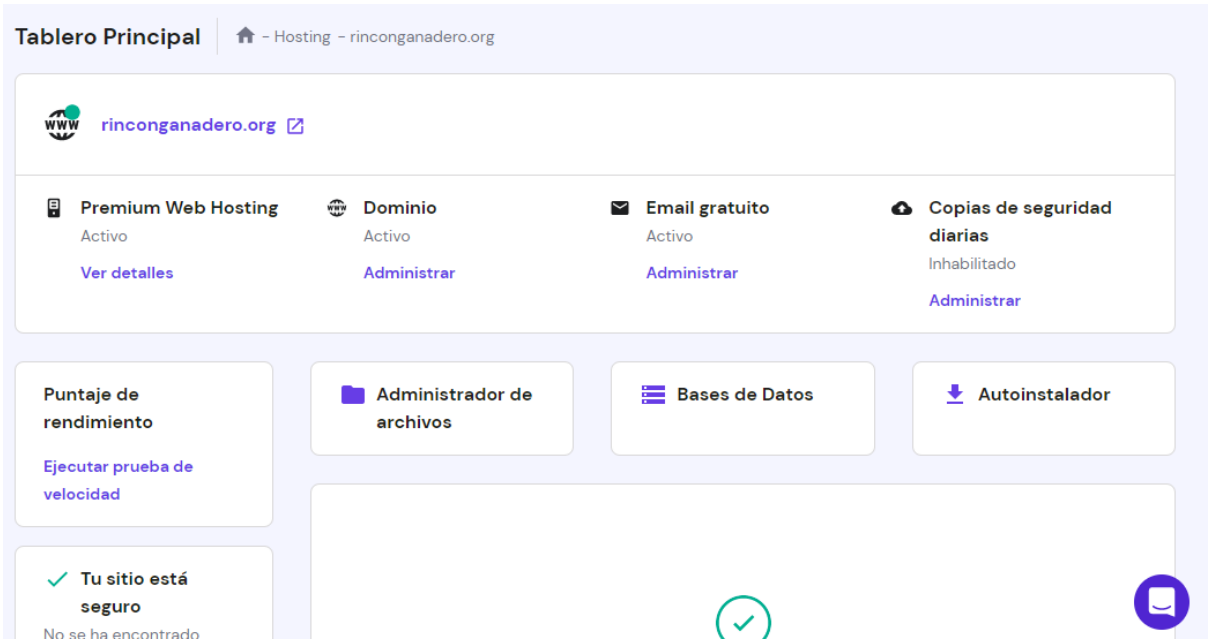

Figure 12 (Hostiger)

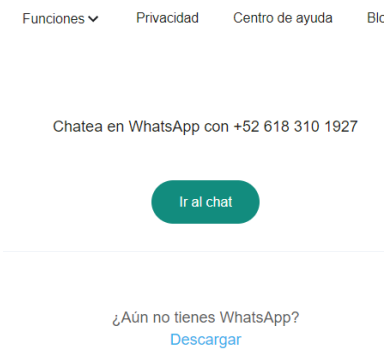

Figure 13 (Whatsapp)

```
<br><a href="https://api.whatsapp.com/send?phone=526183101927&text=" target="_blank">
```

Figure 9 (Whatsapp API)

5.0 Conclusion

It was concluded that developing a website can be a very valuable tool to help a restaurant improve its sales in several ways since this can increase the visibility of a restaurant online. This means that people can easily find information about the restaurant and its menu through a simple Google search. By increasing the visibility of the restaurant online, new customers can be attracted who otherwise would not have known about the restaurant. Another advantage that was found is that it can allow customers to place orders online. This can be useful for customers who want to enjoy restaurant food in the comfort of their home. By offering the option of online ordering, the restaurant can expand its reach to customers who prefer to eat at home.

In short, a website can be a very useful tool for a restaurant by increasing its online visibility, allowing online reservations and orders, and being an effective digital marketing tool. All this can help a restaurant improve its sales and attract new customers.

I liked working with PHP and SQL as programming languages are already two widely used technologies for back-end development today so if I had any bugs it was considerably easy to fix them.

I found PHP to be an easy programming language to learn, plus I already had some experience working with the I feel that I managed to improve my programming logic a lot with this language. Another aspect that I really liked about PHP and SQL is that they are very flexible programming languages since they allowed me to combine them very well with html, css, js and some frameworks such as Bootstrap.

An issue that worried me when working with PHP and SQL was that they are very popular technologies, which makes them frequent targets of hackers, but taking into account that the restaurant where we are working to some extent does not handle bank accounts I consider that through sessions and SSL protection that Hostinger gives us is enough.

Another aspect I worry about is that as web applications become larger and more complex, PHP and SQL may struggle to scale and handle large amounts of data and

web traffic. This can result in slow performance or availability problems so it led me to consider other languages such as JS with Express JS, Python with django or in question of the project being too big to work with JAVA with the multhreading library

Anexes

Norma IEEE 830

What is it?

The IEEE 830-1998 standard for SRS (ERS) is a set of recommendations for specifying software requirements or requirements.

What is it for?

The main purpose of this standard is to help us prepare a very useful document: the ERS (Software Requirements Specification) and this in turn is intended to document the agreements between the client and the development group in order to comply with all the stipulated requirements.

Who created it?

The 830-1998 standard was generated by the IEEE's Software Engineering Standards Committee.

Figure 1(Software requirement document)

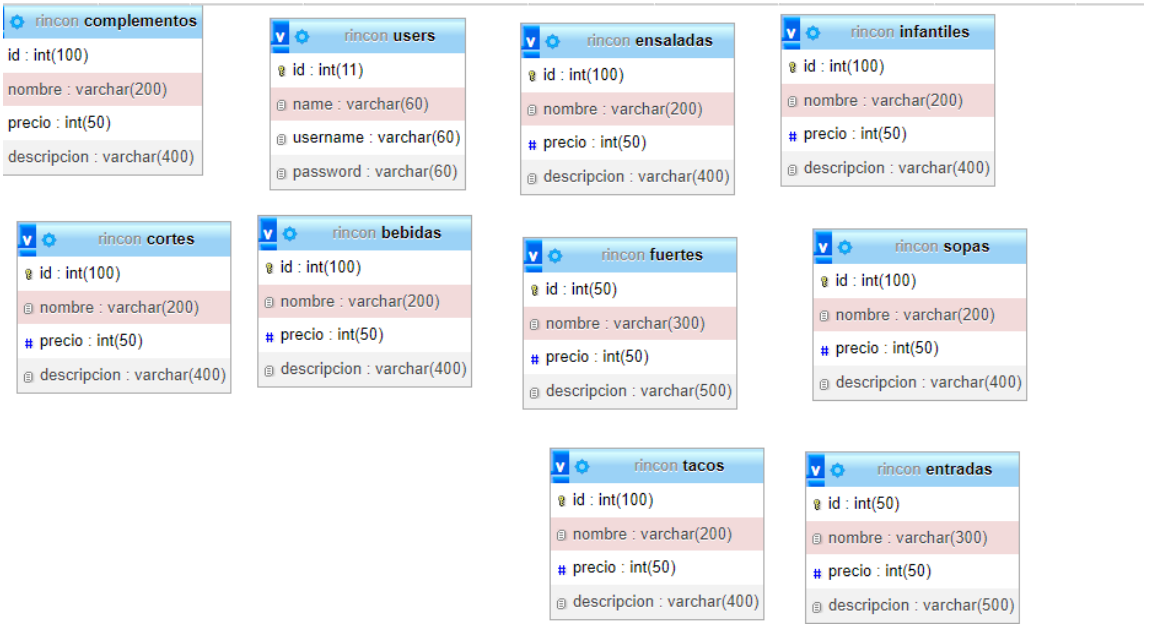

Figure 1 (Database)

```
<tbody>
    <?php
        while($row=mysqli_fetch_array($query)){
    ?>
        <tr>
            <th><?php  echo $row['id']?></th>
            <th><?php  echo $row['nombre']?></th>
            <th><?php  echo $row['descripcion']?></th>
            <th><?php  echo $row['precio']?></th>
            <th><a href="actualizar.php?id=<?php echo $row['id'] ?>" class="info">Editar</a></th>
            <th><a href="delete.php?id=<?php echo $row['id'] ?>" class="danger">Eliminar</a></th>
        </tr>
    <?php
        }
    ?>
    <a href="datos.php" class="insert">Agregar nuevo registro</a>
```

Figure 2 (Table of records)

```
<?php
    include("conexion.php");
    $con=conectar();

$id=$_GET['id'];

$sql="SELECT * FROM tacos WHERE id='$id'";
$query=mysqli_query($con,$sql);

$row=mysqli_fetch_array($query);
?>
```

Figure 3 (Database connection)

```
<div class="login-page">
  <div class="form">
    <form action="update.php" method="post" class="login-form">
    <input type="hidden" name="id" value="<?php echo $row['id']  ?>">
    <h4>Nombre</h4>
    <input type="text" class="form-control mb-3" name="na"  value="<?php echo $row['nombre']  ?>">
    <h4>Descripción</h4>
    <input type="text" class="form-control mb-3" name="descriptio" value="<?php echo $row['descripcion']  ?
    <h4>Precio</h4>
    <input type="text" class="form-control mb-3" name="cost" placeholder="Precio" value="<?php echo $row['p
      <button type="submit" name="register" id="enviar" value="Actualizar">Enviar</button>
```

Figure 4 (Form for updating data)

```php
<?php

include("conexion.php");
$con=conectar();

$id=$_GET['id'];

$sql="DELETE FROM tacos  WHERE id='$id'";
$query=mysqli_query($con,$sql);

    if($query){
        Header("Location: tacos.php");
    }
?>
```

Figure 6 (Delete)

```php
try {
    //Server settings
    $mail->SMTPDebug = 0;                      //Enable verbose debug output
    $mail->isSMTP();                                            //Send using SMTP
    $mail->Host       = 'smtp.gmail.com';                     //Set the SMTP server to send through
    $mail->SMTPAuth   = true;                                   //Enable SMTP authentication
    $mail->Username   = 'rinconganadero2023@gmail.com';                     //SMTP username
    $mail->Password   = 'rincon2022$';                               //SMTP password
    $mail->SMTPSecure = PHPMailer::ENCRYPTION_SMTPS;            //Enable implicit TLS encryption
    $mail->Port       = 465;                                    //TCP port to connect to; use 587 if you have se

    //Recipients
    $mail->setFrom('rinconganadero2023@gmail.com', 'Rincon ganadero');
    $mail->addAddress($email,'rinconganadero2023@gmail.com');     //Add a recipient campiar por correo de articu
```

Figure 7 (Conexion with SMTP and email)

```php
$mail->WordWrap = 50;
$mail->IsHTML(true);
$mail->Subject  =  "Registro de reservación";
$mail->Body     =  "\n<br /> Detalles de la reservación
\n<br /> Nombre del propietario: $nombre \n<br />".
"Descripción de la reservación: $descripcion \n<br />".
"Fecha de reservación: $fecha \n<br />".
"Hora de reservación: $hora \n<br />".
"Email del propietario: $email \n<br />".
$mail->AddAttachment($archivo['tmp_name'], $archivo['name']);
```

Figure 8(Get the data of our variables)

```php
<br><a href="https://api.whatsapp.com/send?phone=526183101927&text=" target="_blank">
```

Figure 9 (Whatsapp API)

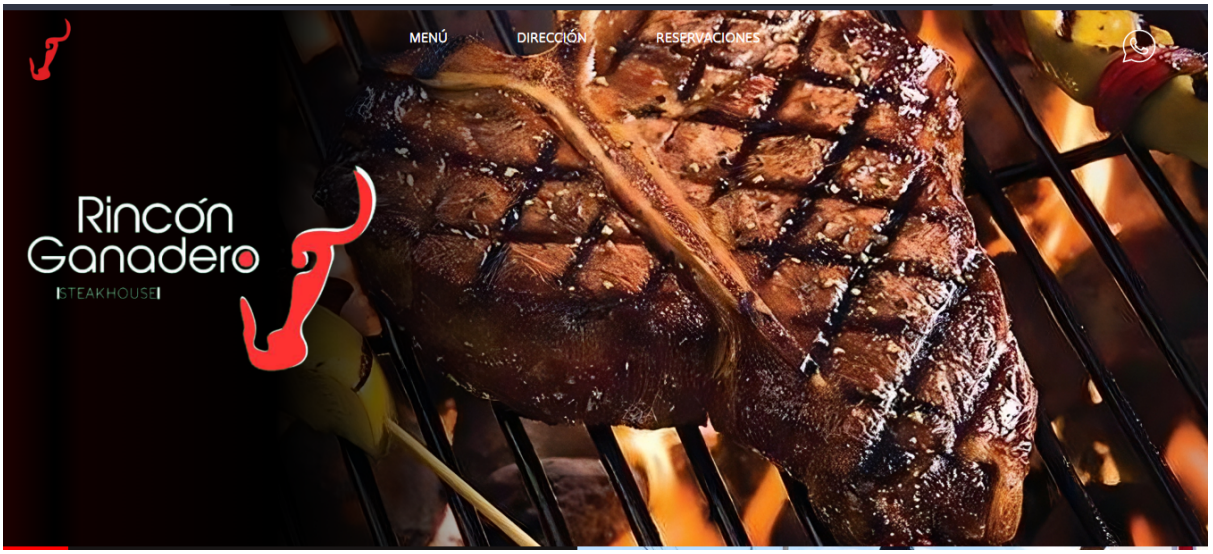

Figure 10 (Main page)

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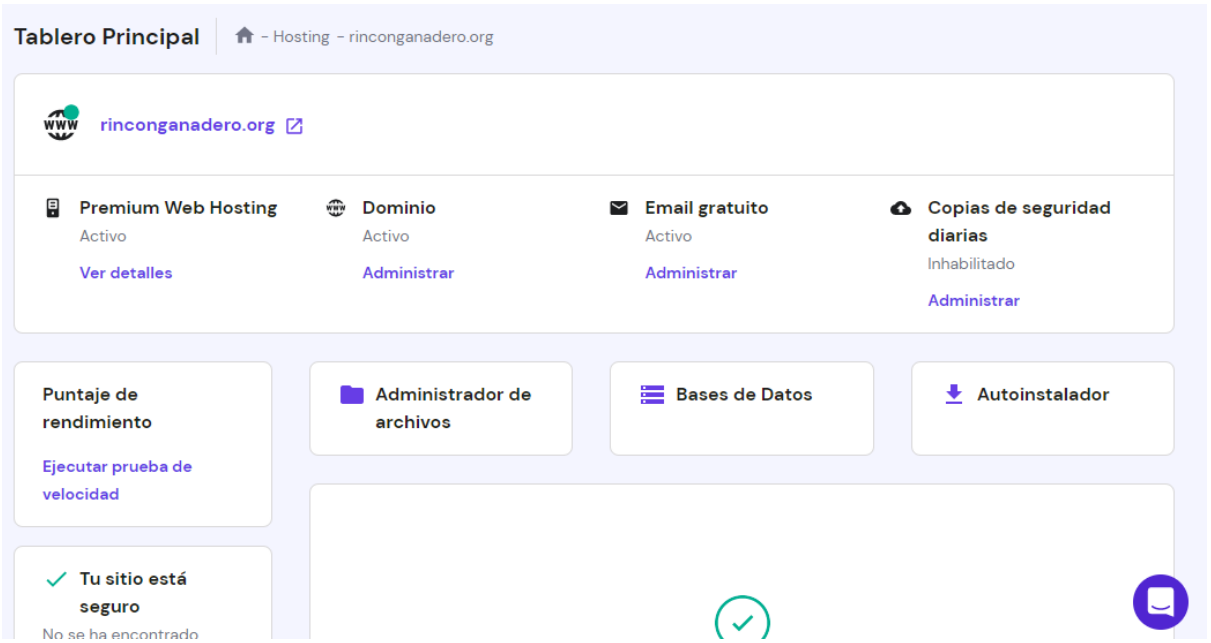

Figure 12 (Hostiger)

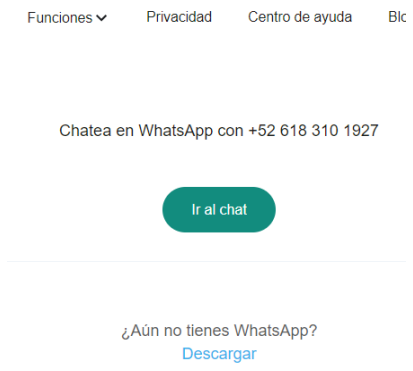

Figure 13 (Whatsapp)

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