

Website for Bricks Industries

Riyazahamed B¹ and Mahalakshmi L²

¹*Student, Department of MCA, Hindusthan College of Engineering and Technology, Coimbatore, Tamil Nadu, India*

²*Assistant Professor, Department of MCA, Hindusthan College of Engineering and Technology, Coimbatore, Tamil Nadu, India*
mahalogu@gmail.com

Abstract. This project entitled as “Website for Bricks Industries” is a web site developed for a brick industry. This has been developed using HTML, CSS, JavaScript as front end and PHP, SQL as back end. The objective of the project is to provide customers accompany over the internet. If the new user Wants to login to the web site, the user must need to Register into the web site to get the login id and Password. After getting the login id and Password the user can login to the web site. Once the user enters to the web site, they can view the Products. The user can Access the product details by clicking the product. The product details contain Name, Quantity, Thickness, Prize, Stock, that can be viewed in Product details by the User. The user can Only view the Product and the Details in the website. If they want to Order the Product, they have to Contact the admin using Contact Number. Delivery and payment are done in person.

Keyword: Bricks, Website, Automation, Sales.

1. Objective

This project is entitled as “Website for Bricks Industries” is a website developed for a brick industry. This site has been developed using HTML, CSS, JavaScript as front end and PHP, MicrosoftSQL as back end. The objective of the project is to provide customers a company over the internet. The user can Register and login using the user id and password and can check the availability of products, Quality, Price etc. and can contact the owner and place the order.

2. Existing System

Existing system of the project was using Microsoft excel sheets to maintain their records[1]. No application available for this organization. The Client cannot view the product in person. The existing system of the project was customers coming physically to buy the product from the Bricks Industries[2]. So, the number of customers coming to buy the product was less and the area reached was small because of the traditional sales method. The customers come physically and check for the availability of the product they want and buy it if it is available[3].

Disadvantage

- The records were maintained through excel sheets.
- They can't use it in multiple systems.
- The Client can view the product in person.
- Customers don't know about the availability of the products before coming to the industries.

3. Proposed System

All the drawbacks in the existing system have been overcome in the proposed system. In feature enhancement, the client can order the products from our websites and the billing system will be added in our website. The billing will be a cash on delivery and it won't be an online payment. The customer can browse the products in our website and order them. In this Project, Client can view the products in our websites. They can see the products, Prices, Categories but cannot order the products.

Advantage

- It is easy to store and retrieve the data which are entering in the application.
- Advantage of the proposed system is the user can use it in multiple devices through network.
- The customer can browse the products in our website and order them in person.

4. System Specification

4.1 Hardware Specification

- Processor: Intel Core I3
- RAM: 8GB
- Hard Disk Drive: 500GB

4.2 Software Specification

- Operating system: Windows 11 Data Server: Wamp
- Front end: HTML, CSS, JavaScript
- Back end: PHP, SQL
- Documentation: Microsoft Word

4.3 About Front-End

HTML: Hyper Text Markup Language or HTML is the Standard markup language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript. Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document. HTML elements are the building blocks of HTML pages [4]. With HTML constructs, images and other objects such as interactive forms may be embedded into the rendered page. HTML provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items. HTML elements are delineated by tags, written using angle brackets.

CSS: Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language. Although most often used to set the visual style of web pages and user interfaces written in HTML and XHTML, the language can be applied to any XML document, including plain Extensible Markup Language (XML), Scalable Vector Graphics (SVG) and XML User Interface Language (XUL), and is applicable to rendering in speech, or on other media. Along with HTML and JavaScript, CSS is a cornerstone technology used by most websites to create visually engaging web pages, user interfaces for web applications, and user interfaces for many mobile applications.

JavaScript: JavaScript is often abbreviated as JS is a high-level interpreted programming language. It is a language that is also characterized as dynamic, weakly typed, prototype-based and multi-paradigm. Alongside HTML and CSS, JavaScript is one of the three core technologies of the World Wide Web. JavaScript enables interactive web pages and thus is an essential part of webapplications[5]. The majority of websites uses it, and all major web browsers have a dedicated JavaScript engine to execute it. As a multi- paradigm language, JavaScript supports event driven, functional, and imperative programming styles.

PHP: PHP stands for PHP: Hypertext Preprocessor. Hypertext refers to files linked together using hyperlinks, such as HyperTextMarkup Language (HTML) files. Pre- processing is executing instructions that modify the output. PHP is a scripting language originally designed for producing dynamic web pages. It has evolved to include a command line interface capability and can be used in standalone graphical applications. PHP is free software released under the PHP License; however, it is incompatible with the GNU General Public License (GPL), due to restrictions on the usage of the term PHP. PHP is a widely-used general-purpose scripting language that is especially suited for web development and can be embedded into HTML. It generally runs on a web server, taking PHP code as its input and creating web pages as output. It can be deployed on most web servers and on almost every operating system and platform free of charge. PHP is installed on more than 20 million websites and 1 million web servers. PHP 5 was released in July 2004 after long development and several prereleases[6]. It is mainly driven by its core, the Zend Engine 2.0 with a new object model and dozens of other new features.

4.4 About Back-End

XAMPP: XAMPP is a free and open-source cross- platform web serve resolution stack package developed by Apache Friends, consisting mainly of the Apache HTTP Server, Maria DB database, and interpreters for scripts written in the PHP and Perl programming languages. XAMPP stands for Cross-Platform (X), Apache (A), Maria DB (M), PHP (P) and Perl (P). It is a simple, lightweight Apache distribution that makes it extremely easy for developers to create a local web server for testing and deployment purposes. Everything needed to set up a web server – server application (Apache), database (Maria DB), and scripting language (PHP) – is included in an extractable file. XAMPP is also cross-platform, which means it works equally well on Linux, Mac and Windows. Since most actual web server deployments use the same components as XAMPP, it makes transitioning from a local test server to a live server extremely easy as well.

MySQL: MySQL is a relational database management system (RDBMS) which has more than 11 million installations. The program runs as a server providing multi user access to a number of databases. MySQL is owned and sponsored by a single for-profit firm, the Swedish company MySQL AB, subsidiary of Sun Microsystems, which holds the copyright to most of the codebase. The project's source code is available under terms of the GNU General Public License, as well as under a variety of proprietary agreements. MySQL is popular for web applications and the database component of the LAMP, BAMP, MAMP, SAMP, and WAMP platforms and for open- source bug tracking tools like Bugzilla. Its popularity for use with web applications is closely tied to the popularity of PHP, which is often combined with MySQL. Several high- traffic web sites (including Flickr, Facebook, Wikipedia, Google, Nokia and YouTube) use MySQL for its data storage and logging of us

5. Project Description

Problem Definition: The problem with the current system is that people need to drive around, find parking, and get stressed out in traffic. Customers have to travel a certain distance for the product. Not all industries will have the Good Qualities and low Price.

Overview of the Project: The proposed system is a website that can be used by anyone who has an account in the website. The customer can browse the products and check the price and quality. The proposed website can be used to view product items.

5.1 Module Description

Registration Module: If the client needs to view the products, they need to login using the login ID. But if the client doesn't have a login ID, they need to register into the website using Name, Mail ID, and Password to view the products.

Login Module: After registration, the client will get the login ID and password. Using that login ID and Password, the client can login to the website and view the products.

Product Module: Once the client logs in to the website, the product will be shown to the client. The products that are shown to the clients have Product Name, Price, and Pictures of Product that are listed with them. There will be an add to cart option with the products.

Details: If the client selects the add to cart option from the product, it will show the products Pictures, Name, quality, Stock, Quantity of Products for ordering.

5.2 Data Flow Diagram

A Data flow diagram (DFD) is a graphical representation of the "flow" of data through an information system. DFD can also be used for the visualization of data processing (structured design). On a DFD, data items flow from an external data source or an internal data store or an external data sink, via an internal process. The process of data flow is shown in Figure 1 and 2.

Level 0

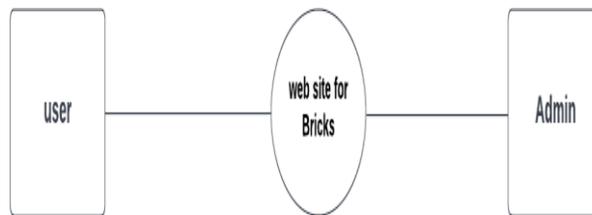


Figure 1: Level 0 DFD.

Level 1

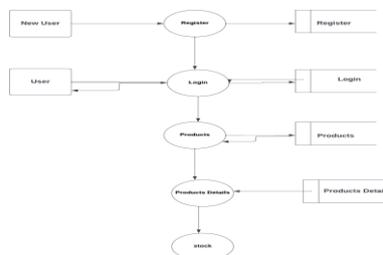


Figure 2: Level 1 DFD.

New Customer:

Customer have to register by entering required information and the customer details are stored into customer table (user) in the database.

Login:

Customer can login to the system by entering their username and password and the login details are checked with the customer table (user).

Product view:

The customers can view the items available in the store that have been added by the Admin. The details regarding the items are retrieved from item table (products).

Product detail:

The customer can view the complete detail of the product from the (products) . In the product details where added from the admin.

5.3 ER Diagram

In software engineering, an entity–relationship model (ER model) is a data model for describing the data or information aspects of a business domain or its process requirements, in an abstract way that lends itself to ultimately being implemented in a database such as a relational database. The main components of ER models are entities (things) and the relationships that can exist among them. The relationship among entity is shown in Figure 3.

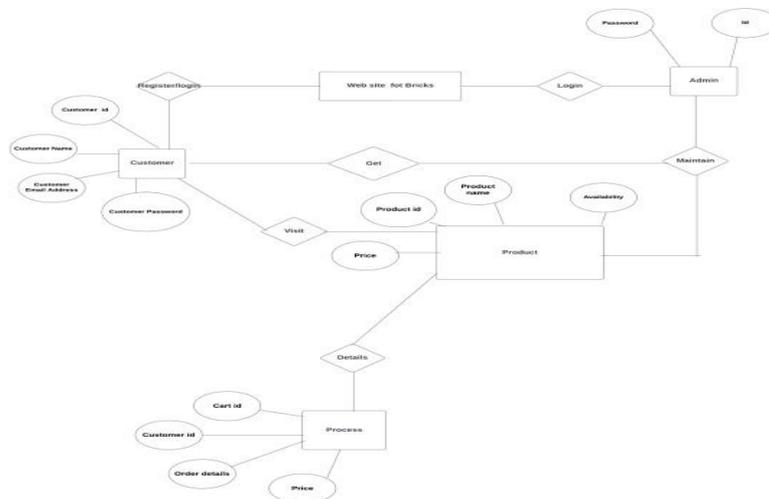


Figure 3: E-R Diagram.

Input design:

Input design is the process of converting a user-oriented description to the system understandable formats. Here both mobilephone and PC involved in the input design.

Customer Registration:

The customer registration form is used to register the Customer for this website, it contains the values such as full name, address, contact, email id, username, password.

Login Details:

Login form will allow the admin and the customer to give input values such as username and password. If the user login the website it shows the home page of the website, the admin login the website it will show the admin panel of the website

Product Details:

Item details form will ask the admin to give input values such as item name, item price, item description, item image etc. it will show the home page for the customers

Output design:

The output design is GUI based activity; almost from the beginning of the project this project provided a best user interface model. Effects and well define an output design improves the relationship of system and the user, thus facilitating decision making for both seeker and provider.

Product Category:

Store contains several products. All the products are categorized into several categories like Fly-ash-Bricks, Reduces Bricks, Red Bricks, Rectangular Bricks, etc.

Product Details:

Product details means it contains the details for the products purchased by the customer, it contains the following details such as product name, price, quantity, image will be displayed for the Admin and the User.

5.4 Software Testing

A primary purpose of testing is to detect software failures so that defects may be discovered and corrected. Testing cannot establish that a product functions properly under all conditions but can only establish that it does not function properly under specific conditions. The scope of software testing often includes examination of code as well as execution of that code in various environments and conditions as well as examining the aspects of code: does it do what it is supposed to do and do what it needs to do. In the current culture of software development, a testing organization may be separate from the development team. There are various roles for testing team members. Information derived from software testing may be used to correct the process by which software is developed.

Software faults occur through the following processes. A programmer makes an error (mistake), which results in a defect (fault, bug) in the software source code. If this defect is executed, in certain situations the system will produce wrong results, causing a failure. Not all defects will necessarily result in failures. For example, defects in dead code will never result in failures. A defect can turn into a failure when the environment is changed. Examples of these changes in environment include the software being run on a new computer hardware platform, alterations in source data, or interacting with different software. A single defect may result in a wide range of failure symptoms.

5.5 Unit Testing

Unit testing provides a sort of living documentation of the system. Developers looking to learn what functionality is provided by a unit and how to use it can look at the unit tests to gain a basic understanding of the unit's API. Unit test cases embody characteristics that are critical to the success of the unit. These characteristics can indicate appropriate/inappropriate use of a unit as well as negative behaviors that are to be trapped by the unit. A unit test case, in and of itself, documents these critical characteristics, although many software development environments do not rely solely upon code to document the product in development.

Testing will not catch every error in the program, since it cannot evaluate every execution path in any but the most trivial programs. The same is true for unit testing. Additionally, unit testing by definition only tests the functionality of the units themselves. Therefore, it will not catch integration errors or broader system level errors (such as functions performed across multiple units, or non-functional test areas such as performance). Unit testing should be done in conjunction with other software testing activities, as they can only show the presence or absence of particular errors; they cannot prove a complete absence of errors. In order to guarantee correct behavior for every execution path and every possible input, and ensure the absence of errors, other techniques are required, namely the application of formal methods to proving that a software component has no unexpected behavior.

Customer Registration

The customer registration form is used to register the Customer for this website, it contains the values such as full name, address, contact, email id, username, password.

System Implementation

System implementation is the practice of creating or modifying a system to create a new business process or replace an existing business process. Technology integration is the practice of integrating multiple system activities to interact and generate information efficiently. In both cases, the system development lifecycle (SDLC) is heavily integrated in these practices. A CPA professional may be involved in designing a system, performing end-user testing, or training others how to utilize the financial system.

As with the other phases of the system development life cycle, the system implementation phase has multiple components or sub-phases. Up to now in the life cycle, the system has been planned, it has been analyzed, and the system has been designed. Now, the system needs to be developed, which is known as coding and is the first sub-phase. The second sub-phase is to test the newly coded system on multiple levels. The third-phase is the planning and implementation of the new system. Finally, post-implementation is the final sub-phase of system implementation.

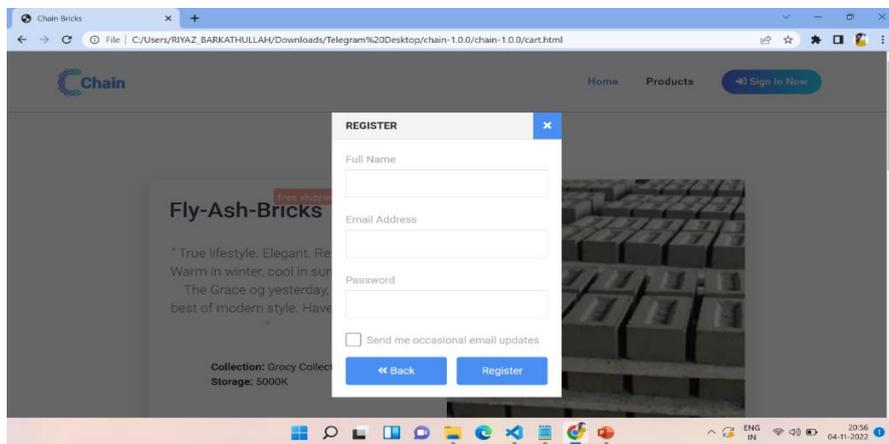
Once the system has been coded, the system goes through different degrees of testing. It is important to make sure the system works and performs the duties the system was intended to perform. The rest of this section deals with the quality assurance process. Based upon Kendal and Kendal, quality should be tested on internal and external factors (2005). The internal factors deal with the duties the systems should perform. The external factors are the perceptions of the customers or other external parties such as suppliers.

6. Conclusion

This website can enable the user only to view the details of the stock available and Quality and its price. This website can be further developed to an advance level Where the Client can login using their user id and Password and order the Bricks though online mode itself and can also make online payment option available. This website is more attractive and it will draw the user's attention.

7. Future Enhancements

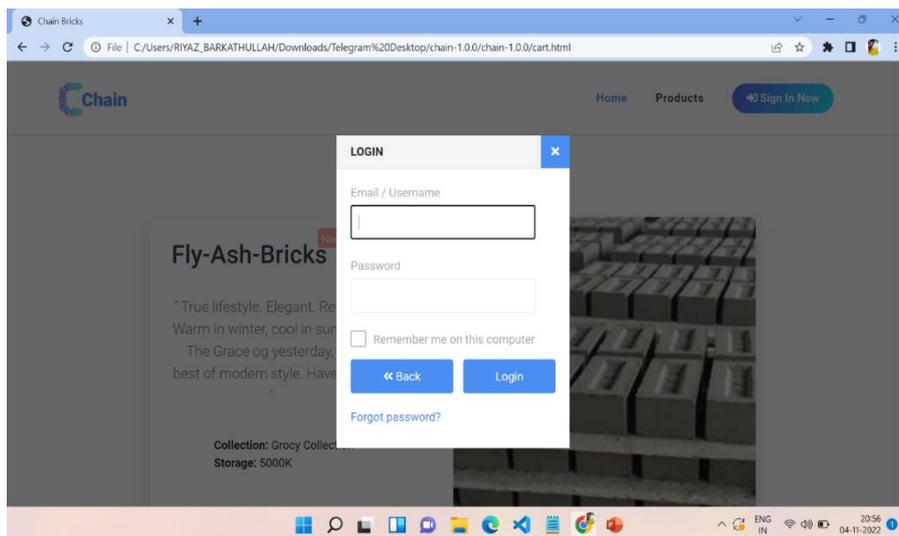
The desktop application has developed in such way that enhancement can be done easily. The changes can be updated with less time and have no risk to add a new module. The system will be improved for further enhancements, whenever the user needs an additional feature. This project can be further enhanced based on the future trends and strategies. Can be implemented in cloud server. Can implement this application as a module application. The outcome of the project is shown in Figure 4, 5, 6, and 7.



The screenshot shows a web browser window with the URL `C:/Users/RIYAZ_BARKATHULLAH/Downloads/Telegram%20Desktop/chain-1.0.0/chain-1.0.0/cart.html`. The page features a header with the 'Chain' logo, 'Home' and 'Products' links, and a 'Sign In Now' button. The main content area displays 'Fly-Ash-Bricks' with a background image of stacked bricks. A 'REGISTER' modal form is overlaid on the page, containing the following fields and elements:

- Full Name (text input)
- Email Address (text input)
- Password (text input)
- Send me occasional email updates
- Navigation buttons: '<< Back' and 'Register'

Figure 4: Registration Form.



The screenshot shows the same web browser window as Figure 4. A 'LOGIN' modal form is overlaid on the page, containing the following fields and elements:

- Email / Username (text input)
- Password (text input)
- Remember me on this computer
- Navigation buttons: '<< Back' and 'Login'
- Link: 'Forgot password?'

Figure 5: Login Form.

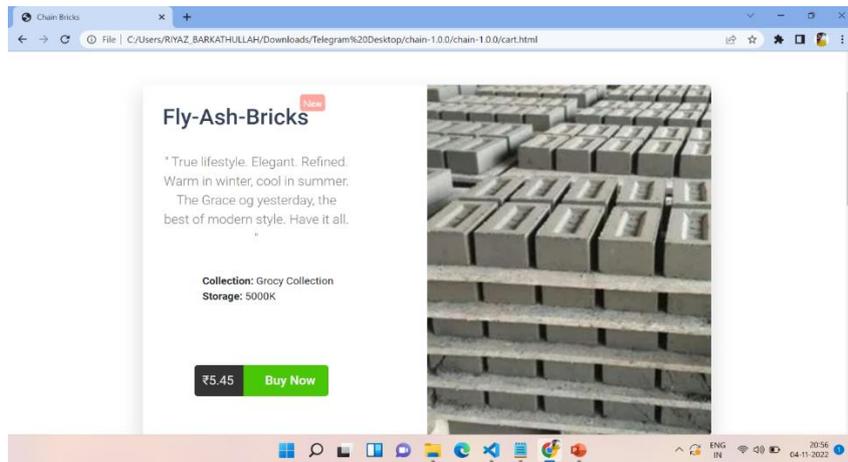


Figure 6: Product Description Page.

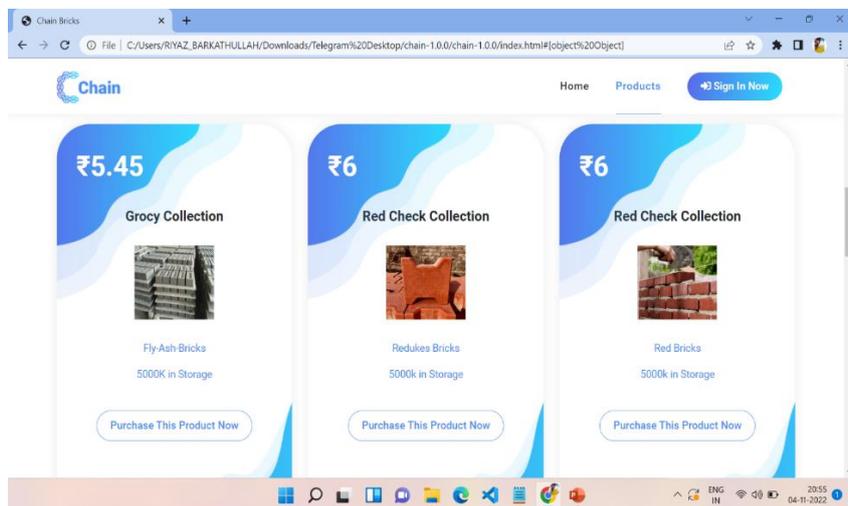


Figure 7: Product Display Page.

References

Bibliography

1. Tom Butler, Kevin Yank, PHP &MySQL: Novice to Ninja, 6th Edition, Site Point, October 2017 ISBN: 9780994346988.
2. Robin Nixon, Learning PHP, MySQL, JavaScript, and CSS, 4th Edition, O'Reilly Media, 2014-11-21
3. Forbes, Alan, The joy of PHP Programming: A Beginner's Guide Java 7 Programming BlackBook, Kogent Learning Solution

Webliography

4. <https://www.w3schools.com>
5. <https://www.tutorialspoint.com>
6. <https://www.youtube.com/@MrWebDesignerAnas>