Web Development Using Cloud Computing and Payment Gateway

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Abstract - *This research paper is about website design of which has main objective of showcasing the products manufactured at the site. It has primary information about the company owner and the workflow. Following page is the grid where all the products majorly manufactured are displayed. For additional features, we added a chatbot where new customers can get instant answers for their doubts. And a query form helps or reaching the owner directly. The website allows to make payments and buying of products.*

Key Words: **Web Development, cloud computing, payment gateway.**

1. INTRODUCTION

Since the last decade, we have seen tremendous change in every sector, this also includes each and every sector. The Skylark Engineering Associates is industry in Pune. This company manufactures different parts by using CNC machines. This company don't have an online platform to get the reach of new customers. The Skylark Engineering Associates Limited, Pune needs a platform that is specifically designed to showcase their products and to get new customers. The online platform should reduce the need for physical work as well such as handling the payments and getting minimal queries of new customers answered. We planned to accomplish this goal by developing a Web page to explore company products. The suggested application is primarily useful for minimizing time spent in marketing products that eliminates time spent tendering change. The information can be saved in a database and accessible at any time. The application will assist in offering better service to users while also reducing time usage. The application is developed in vs code. Firebase has been used as a database where all the data will get saved. Items can be added in the list through admin side. User can simply can ask their queries and also can pay. As a result, there will be quick serving to the clients. The updation of the data to the database will be monitored by the admin.

2. Literature Review

Study on computer numerical control (CNC) machines. The main objective of this paper is to "Study on Computer Numerical Control (CNC) machines for fabrication of rollers. This paper also includes various processes like facing, turning, parting, drilling, boring and knurling to improve production in order to decrease the production time and also

to increase the efficiency in conventional lathe and CNC machines by writing the program on STC-25 CNC lathe. Study on contour error related to dynamic parameters of CNC machine tool – As the contour error on cutting part is closely related to the dynamic parameters of CNC machine tool, which are usually referred to the dynamic accuracy, this paper presents a way to identify the shift of dynamic parameters with special shape feature. By modeling control system of CNC machine tool, the dynamic accuracy parameters of CNC machine tool are selected and the contour error curves are simulated. The contour errors are the results of unsuitable machine parameters and there is certain regularity. Using multiple shape features, the uncoordinated parameters of CNC machine tool causing the contour error are identified. The simulation shows that it is an effective way to identify the machine dynamic accuracy with the characteristic of contour error. Research on self-maintenance strategy of CNC machine tools based on case-based reasoning Self-maintenance strategy of CNC machine tool is one of the key technologies to realize intelligent manufacturing. The main difficulties of this technology are: how to effectively collect and summarize the possible faults of CNC machine tools; how to collect and analyze the execution status of CNC machine tools in real time; how to put forward and set the feasible and best fault maintenance strategy and expert scheme according to the collected information. For this reason, this paper proposes a solution for CNC machine tool maintenance: first, the CNC system needs to have the function of fault maintenance strategy screening, when the machine tool failure occurs, the CNC system can quickly select the best matching maintenance scheme; second, the CNC system needs to have the function of fault early warning, according to the historical fault data, it can send early warning before the failure occurs. Information, timely remind the operation and maintenance personnel to protect. Finally, the practical application verifies the application effect of the autonomous maintenance strategy. Research on Intelligent Technology of CNC Machine Tool Industrial Design: The level of economic development of a country can be demonstrated by the development of the machinery manufacturing industry. At present, the industrial design of CNC machine tool in China is progressing in the direction of intelligence, providing more efficient processing. technology to meet the needs of the times and social development. However, there are still many challenges, which are the key research of the current intelligent industrial design technology. The article will

analyze the significance of industrial design intelligence technology to CNC machine tool, analyze the current research status and propose the application strategies.

3. Problem Statement

Studying the customer's requirement for using CNC items is crucial for increasing market share. More value is offered to users of online platforms. Customers will also place further orders for the same brand (Model) of CNC products. To keep things transparent, accepting online payments is a requirement. Consequently, using a website platform is crucial to increasing the turnover and sales of CNC machines.

4. Objectives

Our project aims to provide a solution by developing a website whose data is stored on cloud.

[1] To automate the traditional manual system of exploring and marketing using web and cloud technologies.

[2] To make smart marketing.

[3] To provide instant reply service to customers using chat-bot.

[4] To provide a payment gateway for the customers.

[5] The proposed system is used to maintain the company updates on online platform.

5. Methodology

1. It is our foremost responsibility to know the customer requirement. Firstly, We gather the basic requirement then further requirements are added to the list. After all this, we analysis the requirement.

2. For this project we are going to make use of HTML,CSS,Bootstrap,Js,RazorPay,Firebase,Brainshop,Vs Code .

3. As the requirement are fixed, now the system architecture is designed and based on recommended changes the design is updated.

4. Different diagram are used to describe the working of system like class diagram, activity diagram, UML diagrams etc.

5. Now, as per design implementation of project is started.

6. Testing is done for each step is done. Different testing platform are used to check the ability of website to support different browsers and operating system (Testing platform like selenium, Testtrail, Aptim, etc).

7. Based on testing results changes are done and deployment of project is done.
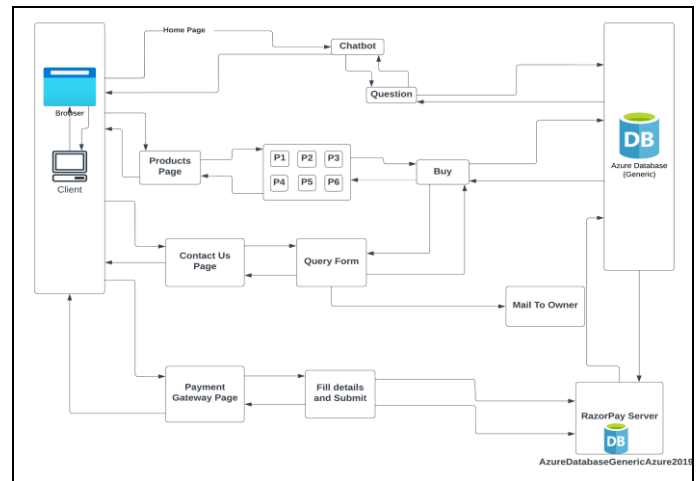
6. System Architecture

Figure 1 : System Architecture

7. Future Scope

In order to keep all of the data in the backend, we have employed cloud computing in the building of websites. The website's details may simply be updated. The website is easy to use. Users may quickly update data and add new goods to the website.
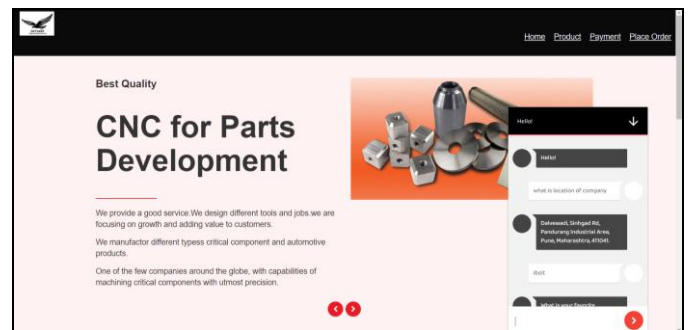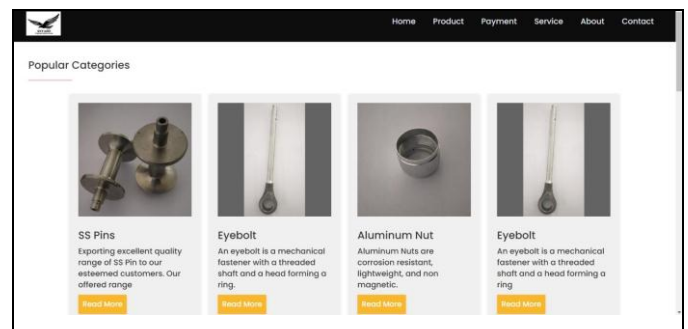
8. Result

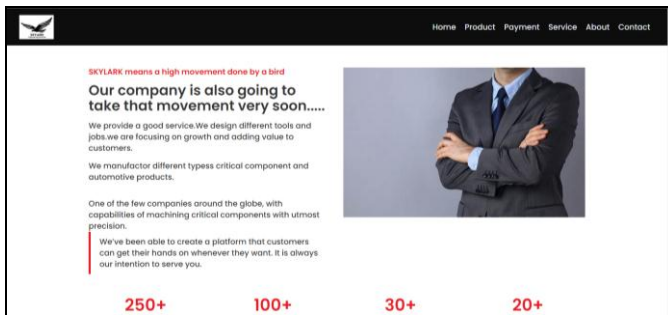**Figure 2 : Home Page**

Figure 3 : Product Page

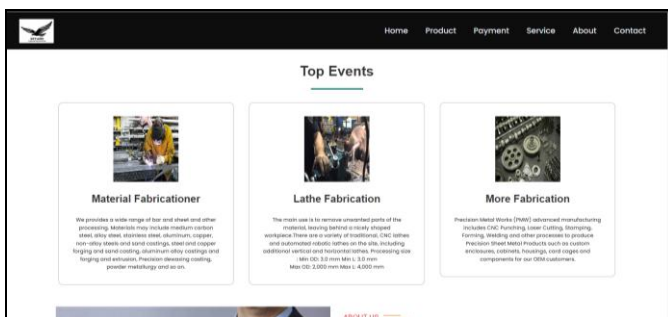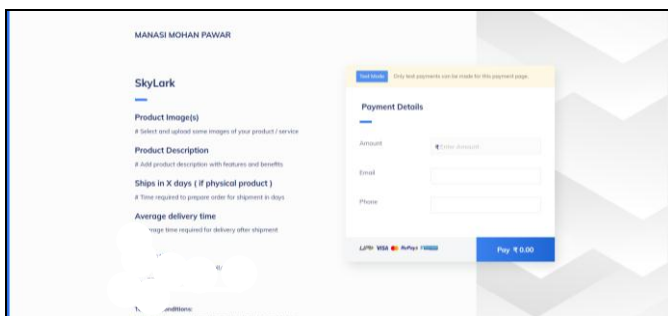**Figure 4 : About Us Page**

Figure 5 : Service Page

Figure 6 : Payment Gateway Page

9. Conclusion

The web application for 'Skylark Engineering Associates' presented in this report is beneficial for digitalizing marketing and exploring products and services which works on web technologies. The benefit of using this technique is that it is unaffected by the size or scale of the people. This platform can be used by small and large businesses alike. Because of the application's user-friendly interface, the program's viewers do not need to be educated in order to utilize it, and they may do it with ease. Admin can keep track of everything that is going on in his business, allowing him to have a better handle on it. The fully automated method eliminates the need to manually making promotion of products on a regular basis and the services in company. The admin team are given access to an application that is accessed via a browser, which optimizes the old, time-consuming, and manual-based procedure of promotions of business by digitizing the entire process. This is the application link: /https://skylarkenginnering.in/

10. Future Work

The proposed system could be further improved by implementing newer algorithms of recommendation system and improving the user interface of the application. This project currently uses real-time database for the data storage which have few limitations such as inability to use filters and sorting queries. In future we are planning to use newer version of Firebase i.e. Firestore in order to improve the backend. This project is quite versatile in terms of expansion and can be upgraded in the near future as and when the need arises. To make UI of application user friendly, we are planning to move development to flutter, which will also increase the system's performance.

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