# Canteen Automation System

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**Abstract —It is has been ascertained that the canteen/ mess/ eating house that we tend to manifest in our day to day lives, whereas in an establishment like academic, business or government-driven has several drawbacks like long snakelike queues, congestion because of the push in peak hours, etc.we tend to propose Associate in Nursing automatic system which could surpass the current bother by Associate in Nursing automatic we tend tob-based system which might maintain, manage Associate in Nursingd methodology orders of shoppers in an extremely speedy methodology using an internet web site and its hold on data.**

**Keywords—Food Ordering, Canteen Automation, Payment.**

## I. Introduction

Automation is that the technology by that a way or procedure is performed with token human facilitate.Automation or automatic management is that the employment of various management systems for operative instrumentation like machinery, processes in factories, boilers, and heat treating ovens, start phone phone networks, steering, and stabilization of ships, aircraft, and completely different applications and vehicles with token or reduced human intervention.

In the current scenario, we have implemented a system that works by reducing manual error wherever possible. The user can initial register on the web site And build an account. once finishing the registration procedure they're going to navigate through the web site, choose the food item they need to shop for, and order it. After which they will be taken to the payment gateway to make the payment.

## II. LITERATURE SURVEY

We went through loads of various analysis papers to grasp all the previous work done on the project that we've got undertaken.

We have understood the following inferences :

[1]     The ordering system paper tackled a similar project but it was not able to finish and confirm the order, as they lacked the payment

[2]     Menu automation paper only was able to generate a real-time menu of the items available but unable to place an order on behalf of the customer

[3]     Order Automation paper, this paper could only help the user decide the order but is unable to process it to the merchant.

[4]     Android-based based Ordering system – They implemented the project but with the drawback of payment only through cash on delivery.

[5]     RFID radio-controlled order – They did the project but it wasn't web-based, it required smart cards and other physical hardware – both at the user and merchant end.

[6]     Smart Canteen – This paper stated that it was only possible for the user to place an order if they were registered with an application that wasn't freely available.

[7]     Online Menu Ordering – This paper referred to a technique that implemented the user to be using a portal that was based on an outdated framework.

[8]     Google form Survey – we conducted a survey in which we asked customers to pick between a normal canteen or a canteen which we proposed in this paper. The favor resulted in our canteen automation system, with more than 67% of the sample agreeing with it.

[9]     We also conducted a survey where we asked the canteen merchant about the current system, they gave us an idea if we could devise a system keep a digital record of the shoppers and their order history which might facilitate the merchandiser predict the long run sales of food things.

[10]     The merchant also pointed out a drawback he faced in keeping a record of the money and corresponding order, as the current manual system was manual error-prone.

# III. METHODOLOGY

Before we have a tendency to get into the methodology we've enforced very well, there square measure many stipulations that we might like our customers to satisfy.

The user should have a tool with a operating net affiliation and if attainable a practicality to create payments on-line..

The user should even have a tool with location service enabled to trace the order location.

Now we are able to get into the varied tools and frameworks that we tend to used for the implementation of our project.

Language        :    JavaScript
Frontend        :    HTML,CSS
Framework    :    React
Database        :    SQL, MongoDB

- **REACT**

React could also be a free and computer code computer file front-end javaScript library for building User Interfaces supported UI parts. it's maintained by Meta and a community of individual developers and corporations. React could also be used as a base at intervals the event of single-page, mobile, or server-rendered applications with frameworks like Next. js.

- **HTML**

HTML, electronic text language, provides content structure which means that by method that content as, as associate degree example, headings, paragraphs, or images.

- **CSS**

CSS , or Cascading vogue Sheets, could be a presentation language created to vogue content's appearance— as an example, fonts or colours. HTML helps in building a web site and CSS for its styling.

- **JAVASCRIPT**

JavaScript is a fun and flexible programming language.It's one amongst the core technologies of internet development and might be used on each the front-end and therefore the back-end.

- **SQL**

As we all know that we have a tendency to do need a information server to store any content of the user record or account management and simple record following. What higher possibility than SQL itself. a typical language for storing, manipulating, and retrieving knowledge in databases.
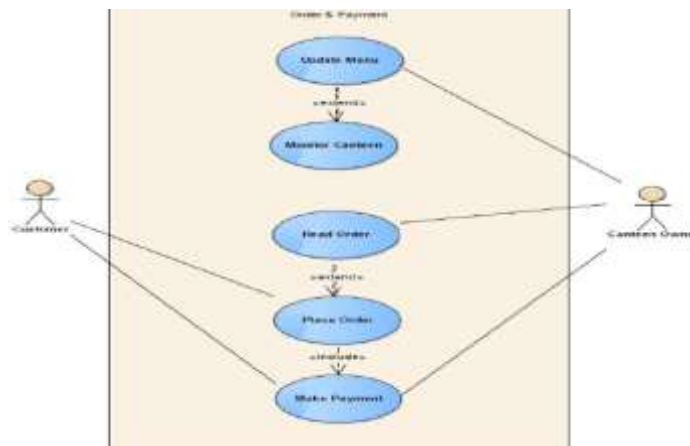
Figure 1. UML Diagram

- **MongoDB**

MongoDB Source-available cross-platform document-oriented database program. MongoDB is classed as a NoSQL info program and uses JSON-like documents with nonmandatory schemas. MongoDB is developed by MongoDB Inc. and licensed under the Server-side Public License (SSPL).
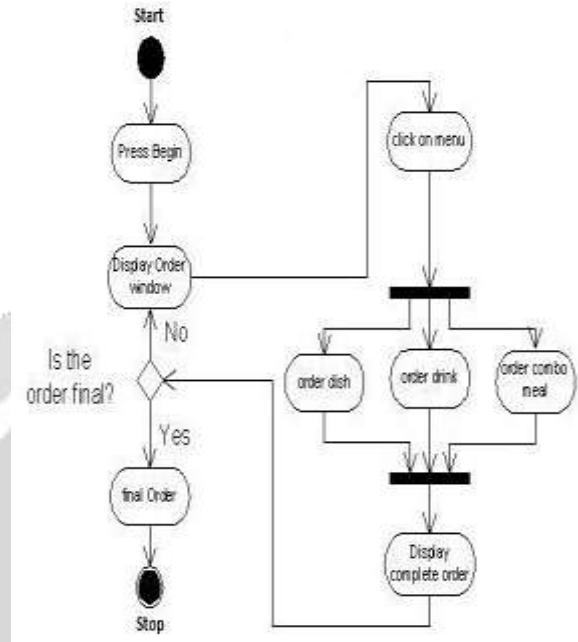
Fig 2: Activity Diagram Of The System

The above dig. shows the activity flow, once the user logs in permitting that individual user to settle on the food item from the given menu and send them to the ultimate order page and ensure the order, and additionally displays the given order

## IV. Result and Discussion

Fig.3 Screengrab of the website

The higher than figure depicts the web-based UI and its login page. Here the user can initial register or register consistent with its previous history on our web-based UI. After this, they will be directed to the menu, where they will select their food item and confirm their order and proceed toward payment
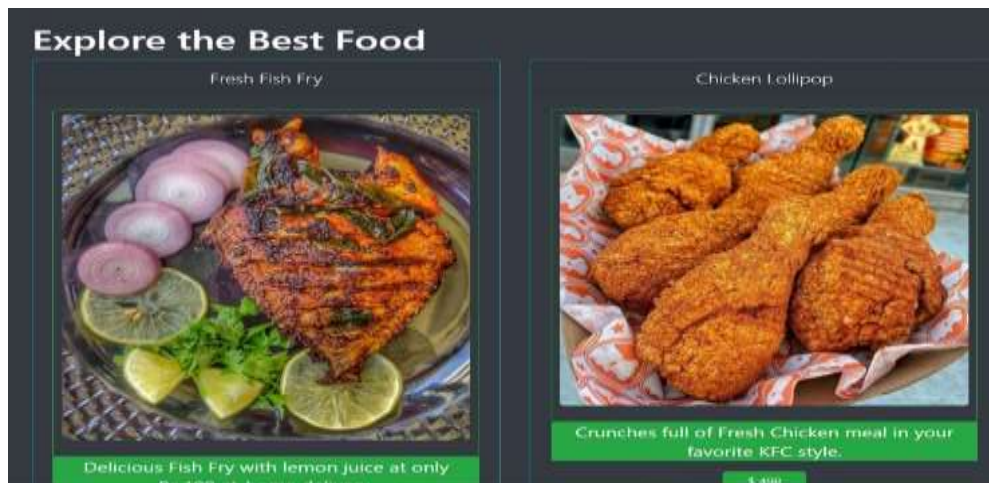
Fig.4  List of selected food items

The above Screen Grabs Show the sequential order placed from the list of food with price and confirmation of the placed order.
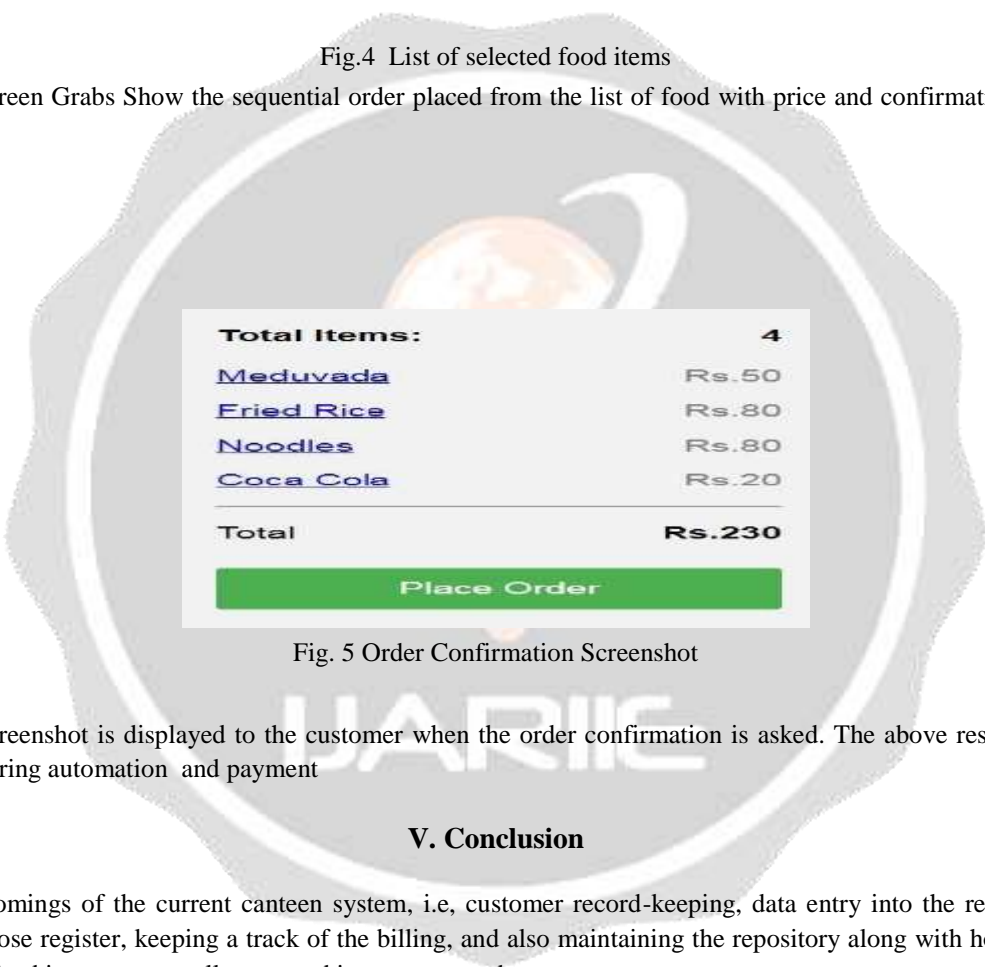


Fig. 5 Order Confirmation Screenshot

The above Screenshot is displayed to the customer when the order confirmation is asked. The above result is validated with food ordering automation  and payment

## V. Conclusion

All the shortcomings of the current canteen system, i.e, customer record-keeping, data entry into the register and then maintaining those register, keeping a track of the billing, and also maintaining the repository along with how many items are left in the food inventory are all surpassed in our proposed system.

The user initial visits our web site Associate in Nursingd makes an account and completes the required procedure. After that, they're target-hunting to following page wherever they will flick through the food things and choose and ensure their order. A define of their order is generated and user confirmation is required. once confirmation, the define is distributed to the canteen owner so that they prepare the food item and let the consumer acknowledge once they area unit ready meantime, a bill is generated at the client aspect and that they ar navigated to the payment entranceway. during this manner, our project fulfills ordering, automation, and payment.

## VI. REFERENCES

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