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**Vellore Institute of Technology**  
(Deemed to be University under section 3 of UGC Act, 1956)

**Title of the Paper:**

**SMALL SCALE GROCERY MANAGEMENT  
SYSTEM .**

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# Keywords

It is used to track all the different variables, states, and functional requirements that you describe in your document. To include the complete list of constants, state variables, inputs, and outputs in a table. In the table, include the description of these items as well as related operations and requirements.

- a. **User:** the person who will be using the android application
- b. **shopkeeper:** the shopkeeper is the person who will update the slots and shops.
- c. **Slots:** Each shop will have to maintain slots based on timing.
- d. **Android Application:** A non-intrusive monitoring system that will not distract the driver and ensures accuracy in detecting drowsiness.

# Introduction

The demand for basic necessities prevails during this time of a global pandemic. People have to get daily supplies like food and medicine and have to risk themselves getting affected by the virus. Hence, we aim to allow the people of a particular area to buy the daily grocery items by maintaining social distancing norms and thereby reducing the risk of spreading coronavirus.

To help the shop owners continue with their business so that they are financially stable while also enabling citizens to get the required items during this lockdown period to the maximum possible extent along with reducing the risk of transmission of the virus and following all the norms of social-distancing which has taken a hit on everyone's lives.

# Literature survey

[https://www.researchgate.net/publication/38178214\\_Online\\_grocery\\_shopping\\_The\\_influence\\_of\\_situational\\_factors](https://www.researchgate.net/publication/38178214_Online_grocery_shopping_The_influence_of_situational_factors)  
[https://ejmcm.com/article\\_7462\\_146e951f8a1a487fa115384268492f5e.pdf](https://ejmcm.com/article_7462_146e951f8a1a487fa115384268492f5e.pdf)  
<https://link.springer.com/article/10.1007/s10645-021-09389-y>  
<https://iopscience.iop.org/article/10.1088/1757-899X/215/1/012013>  
[https://repositorio.ucp.pt/bitstream/10400.14/11679/1/Thesis\\_Joana%20Penim.pdf](https://repositorio.ucp.pt/bitstream/10400.14/11679/1/Thesis_Joana%20Penim.pdf)  
[https://www.researchgate.net/publication/220306215\\_Online\\_grocery\\_systems\\_design\\_through\\_task\\_analysis](https://www.researchgate.net/publication/220306215_Online_grocery_systems_design_through_task_analysis)

# Methodology

At the very base level, we have 2 options to choose from- customer and shopkeeper.

## Shopkeeper(admin) side

Initially, there is a form to register your shop with basic details such as shop name, shop type, description, location, etc. Once that is filled, a post request is sent to the API(addshop route), which adds the shop to the database which is stored permanently. After this, a shop can have multiple slots so the shopkeeper can add a slot by once again filling out a simple form. This form has simple details such as shopId, start time of the slot, end time and also takes in the traffic status during that time- HIGH, MEDIUM or LOW. After adding a slot, the admin can view all of these in a separate page(view all slots). The shopkeeper can also get the registered users for each slot.

## Customer(user) side

The customer also registers himself on the platform and then proceeds to login to the portal. Once authentication is successful, a JWT token is issued from the backend and is stored in the local storage. This token is used to uniquely identify a user. On the homepage, the customer can view the list of shops that have registered on the portal. The shops are listed depending on locality. For example, a student of VIT searches for shops in Vellore, one of the suggestions that may come up is Enzos. The shops are also categorised on the basis of the traffic status(LOW, MEDIUM or HIGH). The user can then view the slots in each shop, and book a slot accordingly. A POST request is sent to the API to book the slot and the slot is then booked successfully, the user can see the list of booked slots in a separate page.

# Results and Discussion

We have successfully implemented the project. We have made a website which will help to prevent overcrowding in local small scale grocery shops. Using basic segregating techniques , we are able to prevent overcrowding keeping in mind covid scare. The website is successfully able to prevent rush in small scale grocery shops. The website can sign up a new user and login an old user. Our future goals for the system will be to increase the scope of our project and implement in big scale grocery shops and to extend into other domains from grocery to other shops.

# Conclusion

Our website is integrated with menu-driven and graphical user-interface for ensuring easy access of the interface elements and to provide the users with a better understandability on how to facilitate the actions. The interaction design, visual design, and information architecture is properly combined so that it does not leave any doubt for the users on how to find or access any element in the interface. The overall layout is simple and attractive.

We hope through our website we are able to add value to the lives of people using the app and seeing the current scenario the website would be very useful to the public.

# References

<https://ieeexplore.ieee.org/abstract/document/8808930>

<https://ieeexplore.ieee.org/abstract/document/8405434>

<https://ieeexplore.ieee.org/abstract/document/6053454>

<https://ieeexplore.ieee.org/abstract/document/8261113>

# Appendix: Glossary

It is used to track all the different variables, states and functional requirements that you describe in your document. To include the complete list of constants, state variables, inputs and outputs in a table. In the table, include the description of these items as well as related operations and requirements.

- a. User: the person who will be using the android application
- b. Shopkeeper: Owner of the shop and protagonist .
- c. slots: Dedicated time interval in a shop.
- d. Android Application: A non-intrusive monitoring system that will not distract the driver and ensures accuracy in detecting drowsiness

# Biography (Authors)

Pratham Sharma- (Student) Worked on subdividing tasks for each member as a team leader for this application by understanding each team member's skillset and time commitments. Also decided the tech stack which will be used to develop our application to make it scalable and user friendly while keeping in mind the current situation.

Sahas Vivek- (Student) Worked on the Work Breakdown structure for this application by understanding the time and customer requirements. Sub

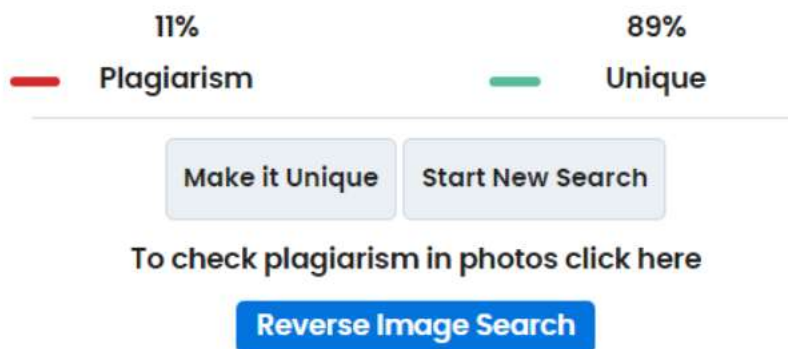
divided each task to understand fully the necessities to develop this application to a highly scalable one.

Shreasi sen- (Student) worked on the Gantt Chart and the Timeline Chart for this application by understanding the time and customer requirements. We sub divided each task to understand fully the necessities to develop this application to a highly scalable.

Dr. Swarnalatha.P-She is our professor who has guided us through every development cycle of the project which as a result helped us improve the quality of the project.

## PLAGIRISM REPORT

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