



## ANDROID GROCERY SHOPPING APPLICATION FOR BLIND PEOPLES

*Shruti Ajit Kole<sup>1</sup>, Dhanashree Rupesh Wadd<sup>1</sup>, Shital Bhauso Waingade<sup>1</sup>, Mrs. S.R.Jadar<sup>2</sup>*

<sup>1</sup>Student, CSE Department, Sharad Institute Of Technology Polytechnic, Maharashtra, Ichalkaranji.

<sup>2</sup>Professor, CSE Department, Sharad Institute of Technology Polytechnic, Maharashtra, Ichalkaranji.

### ABSTRACT

This application is specially designed for blind peoples. With the help of this android application they are easily order what they want. This app is very easy to handle for blind peoples because of the voice assistant, and also, they pay the money online mode with very securely. [14][15] This app makes blind peoples become independent. In this study we learnt that several limitations are there on the resources available to blind peoples were identified by professionals that work with the blind peoples. We also learnt that blind people don't have access to the information common in visual things. For the payment security user has to enter 16-digit credit card number with CVV number also. [20] After payment is done then grocery is delivered to specific customer address.

**Keywords:** CVV, voice assistant, payment, security, independent.

### 1. INTRODUCTION

The grocery shopping application is based on android, which is work on android platform. Now a day's all peoples have their android mobile smart phones with different special features. We also work on android application but it helps to blind peoples to live independent. We are built the android grocery shopping application for blind peoples and it works with the help of voice assistant. [5] We make this user friendly like other apps. It gives all the information about the product after clicking that image including product manufacturing date, expiry date, net value, etc. [10][11] User can speak specific grocery product with the help of voice assistant and they get all the information about that product. [6][7] User can also search for the categorized products like vegetables, fruits, etc. After all the products are added into cart then he has two ways to payment like online or cash on delivery. In that for online payment he has to enter credit card number that will be 16- digit and also, he has to enter CVV number. [1][3] After the payment grocery will be delivered to the specific location. Since, it works very easily without any frustration. [8][9] These days our world peoples are striving to find specific solutions able to take care of certain stuff. Well our task is to figure out what it takes with a new grocery shopping application to succeed. [16][17] As see, the owners of grocery shopping app significantly familiar with the users may visit them with many different ways.

### 2. METHODOLOGY

We are done the work with the flow of SDLC lifecycle. In our project we are using the waterfall model and we done work successfully. First all the information of products will collect by the Admin side and uploaded it in the application. Then customers can order the grocery products with their choice. But all the process done after the verification details are filled by the customer correctly, i.e. CVV Number and credit card number, including customer other details like phone number, name, address etc. [2][4] In this app we are dividing it into two parts like, first are Admin side and second are Customer Side.

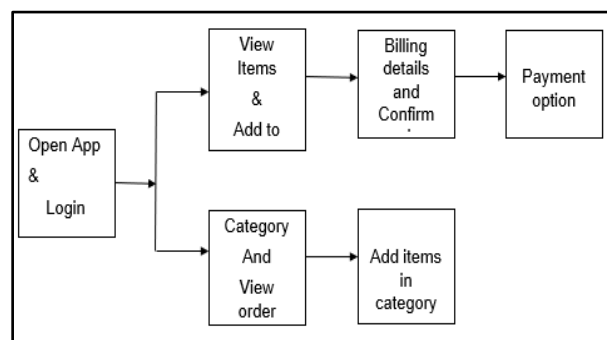
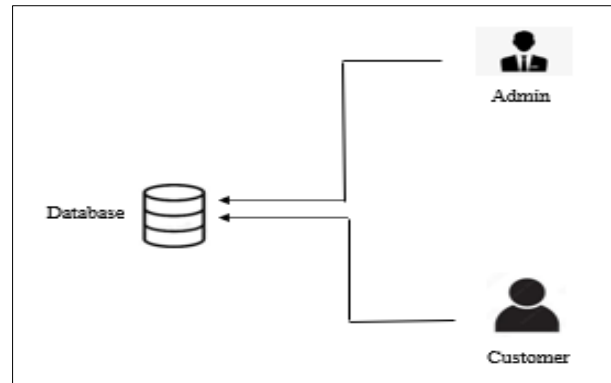
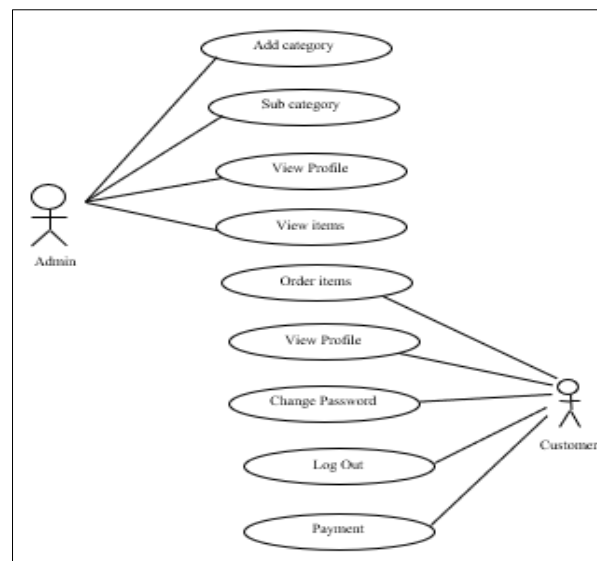


Fig. 1 Block Diagram for Shopping Application



**Fig. 2 Framework Diagram For Application.**



**Fig.3 Use Case Diagram for Grocery Application.**

### MODULES DETAILS

- **Login:** - In this module customer has to login with his unique id and password.
- **View Product:** - After login customer can view grocery products of different categories like fruits, vegetables etc.
- **Add to cart:**-Customer can select different grocery products, Also he gets the information of the product and if he likes he can add it to the cart by clicking a button.
- **Payment** :-Customer can make payment through cash on delivery or on credit card, For credit card payment he has to specify the 16-digit credit card number and CVV number.<sup>[12][13]</sup>

### ADVANTAGES

- Customer can purchase grocery products through his phone that support android.
- Customer can coolly sit at home and purchase the products according to his choice.
- Blind people can purchase grocery products through his mobile phone.
- It offers multiple And secure payment options for finest grocery orders.[18][19]
- It allows customers to schedule the delivery time of grocery orders as per their convenience.
- Map interface is there for the customers tracking the grocery delivery order in real time.

**LIMITATIONS**

- It requires proper internet connection.

**SOFTWARE REQUIREMENTS**

- Windows 7(ultimate, enterprise) Or Windows 10.
- Android Development Toolkit (ADT).

**HARDWARE REQUIREMENTS**

- Processor-i4.
- Hard Disk- 5 GB
- Memory- 2GB or 4GB RAM.
- Android device.

**REFERENCES**

- [1] <https://paytm.com/blog/atm/what-is-cvv-in-an-atm-card/>
- [2] <https://www.cvvnumber.com/>
- [3] <https://www.yesbank.in/life-matters/the-main-purpose-of-the-cvv-number-on-a-credit-card>
- [4] <https://www.dbs.com/digibank/in/articles/save/debit-card-cvv>
- [5] [https://en.wikipedia.org/wiki/Google\\_Assistant](https://en.wikipedia.org/wiki/Google_Assistant)
- [6] [https://play.google.com/store/apps/details?id=com.google.android.apps.accessibility.voiceaccess&hl=en\\_IN&gl=US](https://play.google.com/store/apps/details?id=com.google.android.apps.accessibility.voiceaccess&hl=en_IN&gl=US)
- [7] <https://www.samsung.com/uk/accessibility/mobile-voice-assistant/>
- [8] <https://www.androidauthority.com/google-assistant-838138/>
- [9] <https://www.computerworld.com/article/3597573/android-voice-control.html>
- [10] <https://www.news18.com/news/tech/phonepe-business-app-users-can-now-get-voice-notifications-in-9-regional-languages-how-to-use-it-3202913.html>
- [11] <https://support.google.com/pay-offline-merchants/answer/10243754?hl=en>
- [12] <https://www.newsexperts.in/amazon-pay-introduces-voice-notification-feature-on-amazon-pay-for-business-app/>
- [13] <https://developer.android.com/topic/security/best-practices>
- [14] <https://medium.com/@amritlalsahu5/how-to-develop-a-secure-android-app-b4ec103ece8c>
- [15] <https://www.freecodecamp.org/news/how-to-secure-your-android-app/>
- [16] <https://www.computerworld.com/article/3269019/the-best-privacy-and-security-apps-for-android.html>
- [17] <https://www.computerworld.com/article/3012630/android-security-checkup.html>
- [18] <https://code.tutsplus.com/articles/how-to-secure-an-android-app--cms-26385>
- [19] <https://www.oreilly.com/library/view/application-security-for/9781449322250/ch01.html>
- [20] <https://developer.android.com/training/articles/security-tips>