

# NITTE MEENAKSHI INSTITUTE OF TECHNOLOGY

(AN AUTONOMOUS INSTITUTION, AFFILIATED TO VISVESVARAYA TECHNOLOGICAL UNIVERSITY,

BELGAUM, APPROVED BY AICTE & GOVT.OF KARNATAKA



KNOWLEDGE • CHARACTER • UNITY

## Application Development using OOP(C++)

on

## APMC MANAGEMENT SYSTEM

*Submitted in partial fulfilment of the requirement for the award of Degree of*

*Bachelor of Engineering*

*in*

*Computer Science and Engineering*

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**(Accredited by NBA Tier-1)**

**2020-2021**

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## CERTIFICATE

This is to certify that the Phase II Report on “**APMC MANAGEMENT SYSTEM**” is an authentic work carried out by **Kanaad D S (1NT19CS092)**, **Chinmay Ganapati Hegde (1NT19CS059)**, **Krishnamurthy M Naik (1NT19CS097)** students of **Nitte Meenakshi Institute of Technology**, Bangalore in partial fulfilment for the award of the degree of ***Bachelor of Engineering*** in COMPUTER SCIENCE AND ENGINEERING of Visvesvaraya Technological University, Belagavi during the academic year 2020-2021. It is certified that all corrections and suggestions indicated during the internal assessment has been incorporated in the report.

### Internal Guide

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Dr . Vijaya Shetty

Assistant Professor, Dept. of CSE,

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### Signature of the HOD

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Dr . Thippeswamy M. N.

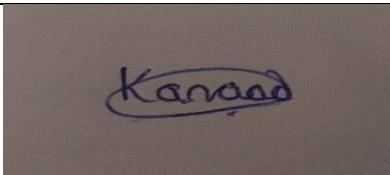

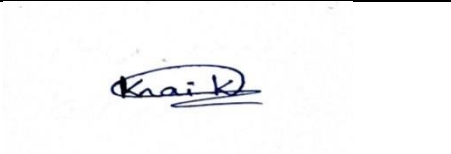
Professor ,Head, Dept. CSE,

NMIT Bangalore

## DECLARATION

We hereby declare that

- (i) The project work is our original work
- (ii) This Project work has not been submitted for the award of any degree or examination at any other university/College/Institute.
- (iii) This Project Work does not contain other persons' data, pictures, graphs or other information, unless specifically acknowledged as being sourced from other persons.
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**Date: 12/01/2021**

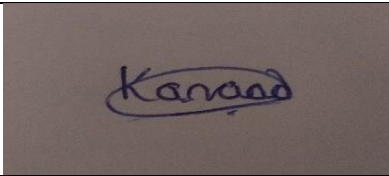

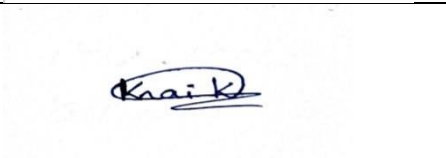
## ACKNOWLEDGEMENT

The satisfaction and euphoria that accompany the successful completion of any task would be incomplete without the mention of the people who made it possible, whose constant guidance and encouragement crowned our effort with success. I express my sincere gratitude to our Principal **Dr. H. C. Nagaraj**, Nitte Meenakshi Institute of Technology for providing facilities.

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## **Abstract :**

Agricultural Marketing is a vibrant subject for academics and administrators as our culture is agriculture.

Though India is gifted with many farmers ,they are not getting valuable prices for their products because of the intermediaries .So to avoid this Government of India established Agricultural Produce Market Committee.

(APMC) in which Government sets the price for particular product known as Minimum support price (MSP). When there is no demand for the product in the public ,the price of the product will drastically go down because of this farmer will be in loss ,so in order to help the farmers MSP is introduced . The Farmers and dealers have their account in APMC which consist their name and id .If Farmer wants to sell his product ,he has to register his product name and the quantity (in Quintals) .APMC checks the MSP for the product and the interested dealers can participate this Bidding process. The bidding is valid if the dealers bid more than the MSP . The bidding will be completed if no dealer wants to bid for next round ,and the dealer who bids for maximum price will buy product and will pay the respective amount for it . The record will be saved in register book (file) with respective dates and details .By this farmer gets the valuable price for his each products.

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# **CHAPTER 1**

## **INTRODUCTION**

### **1.1 PROJECT OVERVIEW**

APMC management system contains the details about the farmers, dealers, auctions performed with the dealers and the final dealing records .

### **1.2 PROJECT DESCRIPTION**

APMC management system stores the details about the farmers, dealers, auctions performed with the dealers and the final dealing records . Farmer is the main charge as he sells the products in large quantity (in orders of quintals ) from him the complete process starts.

The project is completely programmed using Code blocks where the inheritance concept of C++ (including Multiple inheritance) for the different classes .

File handling concept is used for storing the complete process details (in systematic manner) where these will be fed into file and stored which will be used for future use as more records can be appended.

### **1.3 OBJECTIVE**

The development of a this system focuses on certain goals. These said purposes are classified and expound as follows:  
General Objective To make use of the technology through an



improved automated record storage of APMC. Thus, minimizing the errors that resulted from the prior systems. It is projected towards the improvement of relationship between the farmers and Consumers .

The project specifically aims:

- 1)To transmit macro economical signal to Farmers/Producers.
- 2)Balancing Demand and Supply.
- 3)Providing incentives to producers to increase production and output.
- 4)Promoting the efficient use of resources in the production and distribution systems
- 5)To design an system that is simple, user friendly and easy to understand.

## **1.4 LIMITATIONS**

- 1) Dates should be mentioned in properly manner (DD/MM/YYYY)
- 2) Farmer id should start with “F” and unique
- 3) Dealer id should start with “D” and unique
- 4) File should be updated only if the deal is completed

## CHAPTER 2

### LITERATURE SURVEY



The concept of a agriculture produce market regulation programme in India dates back to the British Raj: raw cotton was the first farm produce to attract the attention of the Government due to the anxiety of British rulers to make available the supplies of pure cotton at reasonable prices to the textile mills of Manchester (UK).

Consequently, India's first regulated market (Karanja) was established in 1886 under the Hyderabad Residency Order, with the first legislation being the *Berar Cotton and Grain Market Act* of 1887, which empowered British residents to declare any place in the assigned district a market for sale and purchase of agricultural produce and constitute a committee to supervise the regulated markets. This Act became the model for enactment in other parts of the country.

During the 1960s and 1970s, most of the states enacted and enforced ***Agricultural Produce Markets Regulation (APMR) Acts***. All primary wholesale assembling markets were brought under the ambit

of these Acts. Well laid out market yards and sub-yards were constructed and, for each market area, an Agricultural Produce Market Committee (APMC) was constituted to frame the rules and enforce them. Thus, the organized agricultural marketing came into existence through regulated markets.

APMCs operate on two principles:

1. Ensure that farmers are not exploited by intermediaries (or money lenders) who compel farmers to sell their produce at the farm gate for an extremely low price.
2. All food produce should first be brought to a market yard and then sold through auction.

### **APMC in Karnataka :**

The Government of Karnataka has created APMCs in many towns to enable farmers to sell their produce at reasonable prices. Most APMCs have a market where traders and other marketing agents are provided stalls and shops to purchase agriculture produce from farmers. Farmers can sell their produce to agents or traders under the supervision of the APMC.

Prior to 2020, Farmers couldn't sell produce outside the APMC mechanism. The APMC system made farmers vulnerable to traders' and marketing agents' price manipulations. The Government of India has considered improving the *APMC Act* to benefit all parties involved.

In 2020, the Government of Karnataka passed the *The Karnataka Agricultural Produce Marketing (Regulation and Development) (Amendment) Bill, 2020*, which enables farmers to trade their produce

anywhere without the intervention of APMCs. It also allowed Food processing companies to buy produce directly from farmers.

## **Acts:**

There were many acts passed by Central and state governments related to welfare of farmers. Some of them are

### **APMC Model Act (2003) :**

1. Facilitating contract farming model.
2. Special market for perishables
3. Allowing farmers and private persons to set up their own market.
4. Relaxation of licensing norms.
5. Single market fee
6. APMC revenue to be used for improving market infrastructure.

This act was not passed in many states regarding the political and citizens issue. Almost 18 of states in india ( including Karnataka passed this Act in 2003).

### **1) The Farmers' Produce Trade and Commerce (Promotion and Facilitation) Act, (2020)**

- expands the scope of trade areas of farmers' produce from select areas to "any place of production, collection, aggregation".
- allows electronic trading and e-commerce of scheduled farmers' produce.
- prohibits state governments from levying any market fee, cess, or levy on farmers, traders, and electronic trading platforms for the trade of farmers' produce conducted in an 'outside trade area'.

## **2) Farmers (Empowerment and Protection) Agreement on Price Assurance and Farm Services Act, (2020)**

- provides a legal framework for farmers to enter into pre-arranged contracts with buyers including mention of pricing.
- defines a dispute resolution mechanism.

## **3) Essential Commodities (Amendment) Act, 2020**

- removes foodstuff such as cereals, pulses, potato, onions, edible oilseeds, and oils, from the list of essential commodities, removing stockholding limits on such items except under "extraordinary circumstances.
- requires that imposition of any stock limit on agricultural produce be based on price rise.

From these 3 farm acts passed by Central government , it developed a link of farmers in private sectors ( Previous it was only limited to public sectors).

# **CHAPTER 3**

## **SYSTEM REQUIREMENTS AND SPECIFICATIONS**

### **SYSTEM REQUIREMENTS**

#### **3.1 HARDWARE REQUIREMENTS PROCESSOR:**

Intel Core 2

Duo 1.3GHz or Faster.

RAM:512MB or More.

SPACE REQUIRED: 100MB.

#### **3.2 SOFTWARE REQUIREMENTS**

OS: Windows XP,7,8,8.1,10, Linux, Ubuntu, Mac OS.

#### **Additional software required:**

Code blocks/Visual studio code

# CHAPTER 4

## IMPLEMENTATION

### 4.1 CLASSES AND OBJECTS

A Class may be a user-defined data-type which has data members and member functions. Data members are the info variables and member functions are the functions wont to manipulate these variables and together these data members and member functions define the properties and behaviour of the objects in a Class. An Object is an instance of a Class. When a category is defined, no memory is allocated but when it's instantiated (i.e. an object is created) memory is allocated.

### 4.2 INHERITANCE

One of the most important concepts in object-oriented programming is that of inheritance. Inheritance allows us to define a class in terms of another class, which makes it easier to create and maintain an application. This also provides an opportunity to reuse the code functionality and fast implementation time.

When creating a class, instead of writing completely new data members and member functions, the programmer can designate that the new class should inherit the members of an existing class. This existing class is called the **base** class, and the new class is referred to as the **derived** class.

**Public Inheritance** – When deriving a class from a **public** base class, **public** members of the base class become **public** members of the derived class and **protected** members of the base class become **protected** members of the derived class. A base class's **private** members are never accessible directly from a derived class, but can be accessed through calls to the **public** and **protected** members of the base class.

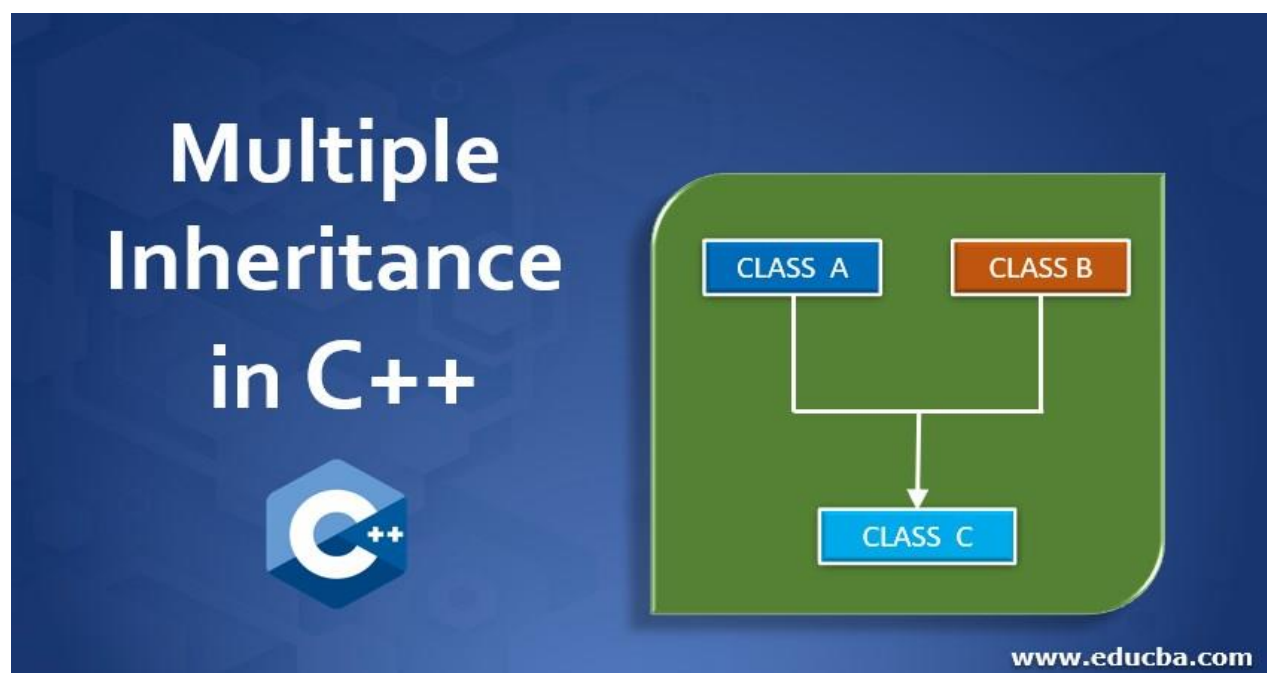
**Protected Inheritance** – When deriving from a **protected** base class, **public** and **protected** members of the base class become **protected** members of the derived class.

**Private Inheritance** – When deriving from a **private** base class, **public** and **protected** members of the base class become **private** members of the derived class.

### ***MULTIPLE INHERITANCE :***

This is a type of inheritance where the derived class inherits the properties from more than one base class. For example refer below figure

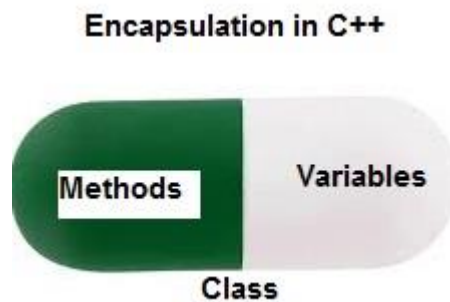
In the system Apmc class inherits the properties from farmer and dealer class.





## 4.3 Data Encapsulation

**Encapsulation** is defined as combining up of data and information under a single unit. In Object Oriented Programming, Encapsulation is defined as binding together the data and the functions that manipulates them.



## 4.4 Data Abstraction

Abstraction refers to the act of representing essential features without including the background details or explanations.

The system the farmer and dealer details are fed ,the final dealing is displayed but the auction process (internal) is unknown .

## 4.3 FILE HANDLING:

We have used this concept to store the complete details (i.e. in a file).

1. **ofstream**: This file stream is used for writing information from file .
2. **ifstream**: This file stream is used for reading information from file.
3. **fstream**: This file stream is used for reading and writing information from file.

There are some mode flags used for file opening.

- **ios::in**: mode used for reading the data from console
- **ios::app**: mode used for append the data to the file
- **ios::out**: mode used for writing the data to the file

General functions used for file handling in our program :

1. **open()**: Creating a file
2. **close()**: Closing a file
3. **get()**: Reading a character from file
4. **eof()**: It checks the end of file
5. **seekg()**: Associated file's current get pointer by offset number of characters from the specified origin(beg/cur/end).

# CHAPTER 5

## TEST CASES

|                     |            |                              |                         |
|---------------------|------------|------------------------------|-------------------------|
| <b>Test Case ID</b> | T1         | <b>Test case Description</b> | Testing for normal case |
| <b>Created by</b>   | Kanaad D S | <b>Reviewed By</b>           | Dr. VijayaShetty        |

|                      |            |                    |            |                              |      |
|----------------------|------------|--------------------|------------|------------------------------|------|
| <b>Tester's Name</b> | Kanaad D S | <b>Date Tested</b> | 12-01-2021 | <b>Test case (Pass/Fail)</b> | Pass |
|----------------------|------------|--------------------|------------|------------------------------|------|

|                      |                               |
|----------------------|-------------------------------|
| <b>Test Scenario</b> | Auctioning for only one round |
|----------------------|-------------------------------|

|           |                      |
|-----------|----------------------|
| <b>S#</b> | <b>Prerequisites</b> |
| 1)        | Code Blocks          |

| STEP # | Step Details                | Actual Results | Pass/Fail |
|--------|-----------------------------|----------------|-----------|
| 1      | Entering Farmer details     | As Expected    | Pass      |
| 2      | Entering dealers details    | As Expected    | Pass      |
| 3      | Performing the auction      | As Expected    | Pass      |
| 4      | Displaying the final result | As Expected    | Pass      |
| 5      | Uploading to the file       | As Expected    | Pass      |

|                     |            |                              |                         |
|---------------------|------------|------------------------------|-------------------------|
| <b>Test Case ID</b> | T2         | <b>Test case Description</b> | Testing for more rounds |
| <b>Created by</b>   | Kanaad D S | <b>Reviewed By</b>           | Dr. VijayaShetty        |

|                      |            |                    |            |                              |      |
|----------------------|------------|--------------------|------------|------------------------------|------|
| <b>Tester's Name</b> | Kanaad D S | <b>Date Tested</b> | 12-01-2021 | <b>Test case (Pass/Fail)</b> | Pass |
|----------------------|------------|--------------------|------------|------------------------------|------|

|                      |                                     |
|----------------------|-------------------------------------|
| <b>Test Scenario</b> | Auctioning for more than one rounds |
|----------------------|-------------------------------------|

|           |                      |
|-----------|----------------------|
| <b>S#</b> | <b>Prerequisites</b> |
| 1)        | Code Blocks          |

| STEP # | Step Details                 | Actual Results | Pass/Fail |
|--------|------------------------------|----------------|-----------|
| 1      | Entering Farmer details      | As Expected    | Pass      |
| 2      | Entering dealers details     | As Expected    | Pass      |
| 3      | Performing the auction twice | As Expected    | Pass      |
| 4      | Displaying the final result  | As Expected    | Pass      |
| 5      | Uploading to the file        | As Expected    | Pass      |

|                     |                         |                              |                                |
|---------------------|-------------------------|------------------------------|--------------------------------|
| <b>Test Case ID</b> | T3                      | <b>Test case Description</b> | Testing for less than MSP case |
| <b>Created by</b>   | Chinmay Ganapathi Hegde | <b>Reviewed By</b>           | Dr. VijayaShetty               |

|                      |                         |                    |            |                              |      |
|----------------------|-------------------------|--------------------|------------|------------------------------|------|
| <b>Tester's Name</b> | Chinmay Ganapathi Hegde | <b>Date Tested</b> | 12-01-2021 | <b>Test case (Pass/Fail)</b> | Pass |
|----------------------|-------------------------|--------------------|------------|------------------------------|------|

|                      |                               |
|----------------------|-------------------------------|
| <b>Test Scenario</b> | Any dealer bids less than MSP |
|----------------------|-------------------------------|

|           |                      |
|-----------|----------------------|
| <b>S#</b> | <b>Prerequisites</b> |
| 1)        | Code Blocks          |

| STEP # | Step Details                | Actual Results | Pass/Fail |
|--------|-----------------------------|----------------|-----------|
| 1      | Entering Farmer details     | As Expected    | Pass      |
| 2      | Entering dealers details    | As Expected    | Pass      |
| 3      | Performing the auction      | As Expected    | Pass      |
| 4      | Displaying the final result | As Expected    | Pass      |
| 5      | Uploading to the file       | As Expected    | Pass      |

|                     |                      |                              |                                |
|---------------------|----------------------|------------------------------|--------------------------------|
| <b>Test Case ID</b> | T4                   | <b>Test case Description</b> | Testing for less than MSP case |
| <b>Created by</b>   | Krishnamurthy M Naik | <b>Reviewed By</b>           | Dr. VijayaShetty               |

|                      |                      |                    |            |                              |      |
|----------------------|----------------------|--------------------|------------|------------------------------|------|
| <b>Tester's Name</b> | Krishnamurthy M Naik | <b>Date Tested</b> | 12-01-2021 | <b>Test case (Pass/Fail)</b> | Pass |
|----------------------|----------------------|--------------------|------------|------------------------------|------|

|                      |                                    |
|----------------------|------------------------------------|
| <b>Test Scenario</b> | All the dealers bids less than MSP |
|----------------------|------------------------------------|

|           |                      |
|-----------|----------------------|
| <b>S#</b> | <b>Prerequisites</b> |
| 1)        | Code Blocks          |

| STEP # | Step Details                | Actual Results | Pass/Fail |
|--------|-----------------------------|----------------|-----------|
| 1      | Entering Farmer details     | As Expected    | Pass      |
| 2      | Entering dealers details    | As Expected    | Pass      |
| 3      | Performing the auction      | As Expected    | Fail      |
| 4      | Displaying the final result | As Expected    | Pass      |
| 5      | Uploading to the file       | As Expected    | Fail      |

## CHAPTER 6

### RESULTS

#### TEST CASES : T1

```
A New Deal Begins
-----

Enter the farmer's details and his product details

Enter the name
Kanaad

Enter the id start with F
F12

Enter the product name to be sold
Tomato

Enter the quantity of Tomato to be sold in quintals(1 quintal =100 kg)
50


Enter the no of dealers in the auction
2
Enter the dealers' details

Enter the details of the dealer 1

Enter the name
Chinmay

Enter the id start with D
D23

Enter the details of the dealer 2

Enter the name
Krishna

Enter the id start with D
D34
```

Auction starts :

Enter the date in DD/MM/YYYY format

12/01/2021

Enter the MSP for the product 'Tomato' fixed by government per kg

2

Enter the bidding price for the product 'Tomato' one by one

Bidding price should be always greater than or equal to MSP fixed and greater than any another dealer

Round 1 :

If 'Chinmay' wants to bid for round-1 enter 1 else enter any

1

dealer 'Chinmay' bids for rupees

5

If 'Krishna' wants to bid for round-1 enter 1 else enter any

1

dealer 'Krishna' bids for rupees

10

If any dealer wants to go for round-2 enter 1 else enter any

2

Auction completed

The deal is performed between the farmer 'Kanaad' and the dealer 'Krishna'  
Dealer 'Krishna' buys the product 'Tomato' for rupees '10' per kg (MSP was 2 rupees)  
So he has to pay rupees '50000' for '50' quintals of product 'Tomato'

If the deal is performed then to update the File enter 1 else enter any



To show records enter 1 else enter any  
1

-----  
11/01/2021

Details of auction performed

Farmer name

Kanaad (ID F12)

Product name

potato

Quantity of the product

25 quintals

Dealer 1 name

Chinmay (ID D12)

Dealer 2 name

Krishna (ID D23)

MSP 10 rupees

The deal is performed between farmer 'Kanaad' and dealer 'Chinmay'

Dealer 'Chinmay' buys the product 'potato' for rupees '25' per kg

So he paid rupees '62500' for '25' quintals of product 'potato'

-----  
12/01/2021

Details of auction performed

Farmer name

Kanaad (ID F12)

Product name

Tomato

Quantity of the product

50 quintals

Dealer 1 name

Chinmay (ID D23)

Dealer 2 name

Krishna (ID D34)

MSP 2 rupees

The deal is performed between farmer 'Kanaad' and dealer 'Krishna'

Dealer 'Krishna' buys the product 'Tomato' for rupees '10' per kg

So he paid rupees '50000' for '50' quintals of product 'Tomato'

-----

## T2

```
-----  
A New Deal Begins  
-----  
  
Enter the farmer's details and his product details  
  
Enter the name  
Kanaad  
  
Enter the id start with F  
F12  
  
Enter the product name to be sold  
Tomato  
  
Enter the quantity of Tomato to be sold in quintals(1 quintal =100 kg)  
50  
  
Enter the no of dealers in the auction  
2  
Enter the dealers' details  
  
Enter the details of the dealer 1  
  
Enter the name  
Chinmay  
  
Enter the id start with D  
D23  
  
Enter the details of the dealer 2  
  
Enter the name  
Krishna  
  
Enter the id start with D  
D34
```

Auction starts :

Enter the date in DD/MM/YYYY format

01/01/2021

Enter the MSP for the product 'Tomato' fixed by government per kg

3

Enter the bidding price for the product 'Tomato' one by one

Bidding price should be always greater than or equal to MSP fixed and greater than any another dealer

Round 1 :

If 'Chinmay' wants to bid for round-1 enter 1 else enter any

1

dealer 'Chinmay' bids for rupees

5

If 'Krishna' wants to bid for round-1 enter 1 else enter any

1

dealer 'Krishna' bids for rupees

15

If any dealer wants to go for round-2 enter 1 else enter any

1

Round 2 :

If 'Chinmay' wants to bid for round-2 enter 1 else enter any  
1

dealer 'Chinmay' bids for rupees  
25

If 'Krishna' wants to bid for round-2 enter 1 else enter any  
1

dealer 'Krishna' bids for rupees  
20

If any dealer wants to go for round-3 enter 1 else enter any  
1

Round 3 :

If 'Chinmay' wants to bid for round-3 enter 1 else enter any  
1

dealer 'Chinmay' bids for rupees  
30

If 'Krishna' wants to bid for round-3 enter 1 else enter any  
1

dealer 'Krishna' bids for rupees  
35

If any dealer wants to go for round-4 enter 1 else enter any  
2

Auction completed

The deal is performed between the farmer 'Kanaad' and the dealer 'Krishna'  
Dealer 'Krishna' buys the product 'Tomato' for rupees '35' per kg (MSP was 3 rupees)  
So he has to pay rupees '175000' for '50' quintals of product 'Tomato'

-----  
-----  
01/01/2021

Details of auction performed

Farmer name

Kanaad (ID F12)

Product name

Tomato

Quantity of the product

50 quintals

Dealer 1 name

Chinmay (ID D23)

Dealer 2 name

Krishna (ID D34)

MSP 3 rupees

The deal is performed between farmer 'Kanaad' and dealer 'Krishna'

Dealer 'Krishna' buys the product 'Tomato' for rupees '35' per kg

So he paid rupees '175000' for '50' quintals of product 'Tomato'

-----  
  
If you want to go for a new auction enter 1 else to exit enter any

## T3

Enter the farmer's details and his product details

Enter the name

Kanaad

Enter the id start with F

F12

Enter the product name to be sold

Potato

Enter the quantity of Potato to be sold in quintals(1 quintal =100 kg)

40

Enter the no of dealers in the auction

3

Enter the dealers' details

Enter the details of the dealer 1

Enter the name

Chinmay

Enter the id start with D

D23

Enter the details of the dealer 2

Enter the name

Krishna

Enter the id start with D

D34

Enter the details of the dealer 3

Enter the name

Akash

Enter the id start with D

D45

Auction starts :

Enter the date in DD/MM/YYYY format

03/01/2021

Enter the MSP for the product 'Potato' fixed by government per kg

10

Enter the bidding price for the product 'Potato' one by one

Bidding price should be always greater than or equal to MSP fixed and greater than any another dealer

Round 1 :

If 'Chinmay' wants to bid for round-1 enter 1 else enter any

1

dealer 'Chinmay' bids for rupees

20

If 'Krishna' wants to bid for round-1 enter 1 else enter any

1

dealer 'Krishna' bids for rupees

50

If 'Akash' wants to bid for round-1 enter 1 else enter any

1

dealer 'Akash' bids for rupees

5

Invalid

Auction completed

The deal is performed between the farmer 'Kanaad' and the dealer 'Krishna'  
Dealer 'Krishna' buys the product 'Potato' for rupees '50' per kg (MSP was 10 rupees)  
So he has to pay rupees '200000' for '40' quintals of product 'Potato'

## T4

-----  
A New Deal Begins  
-----

Enter the farmer's details and his product details

Enter the name  
Praveen

Enter the id start with F  
F34

Enter the product name to be sold  
Carrot

Enter the quantity of Carrot to be sold in quintals(1 quintal =100 kg)  
100

Enter the no of dealers in the auction  
2

Enter the dealers' details

Enter the details of the dealer 1

Enter the name  
Kiran

Enter the id start with D  
D34

Enter the details of the dealer 2

Enter the name  
Alok

Enter the id start with D  
D67



Auction starts :

Enter the date in DD/MM/YYYY format

06/01/2021

Enter the MSP for the product 'Carrot' fixed by government per kg

30

Enter the bidding price for the product 'Carrot' one by one

Bidding price should be always greater than or equal to MSP fixed and greater than any another dealer

Round 1 :

If 'Kiran' wants to bid for round-1 enter 1 else enter any

1

dealer 'Kiran' bids for rupees

20

Invalid

If 'Alok' wants to bid for round-1 enter 1 else enter any

1

dealer 'Alok' bids for rupees

15

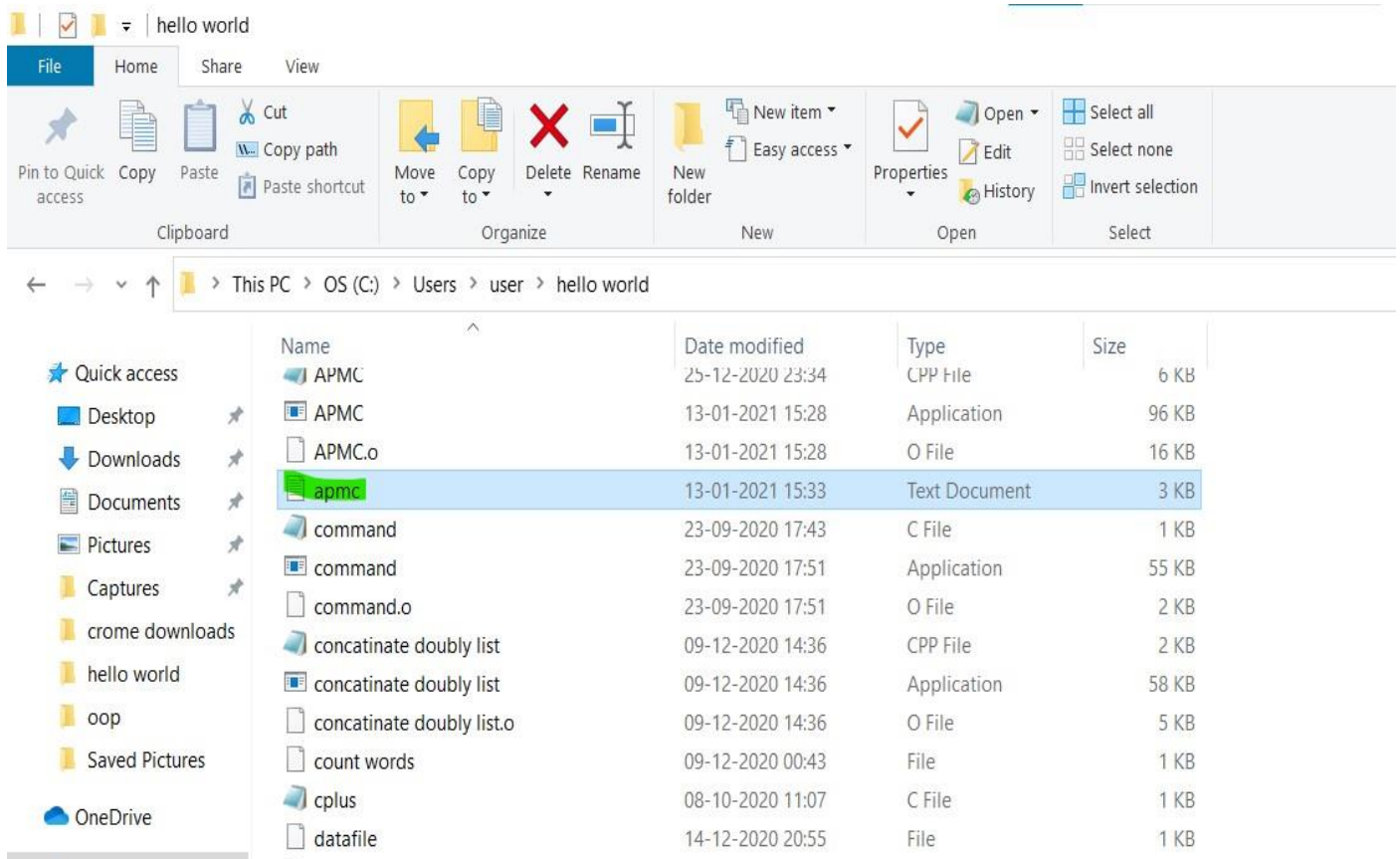
Invalid

If any dealer wants to go for round-2 enter 1 else enter any

3

Auction completed

Invalid - Deal is not performed



The complete updated file is stored in system . The above figure shows the stored file( highlighted in green).

## **CHAPTER 7**

### **CONCLUSION**

The basic objective of APMC Management system is the simplified system of the daily activities of the farmer and dealers also the auctions which are performed between thousands of farmers and dealers of various super markets , companies, shops, stores from different places.

This is a efficient ,fast, user friendly system which is the main goal of the project as it reduces the manual error and stored in systematic manner

APMC Management system is based on the concept of recording the details i.e. where the user performs all the tasks of creating the farmers and dealers details , performing the auction between the dealers ,recording to the file, updating the file, viewing the record , saving it as a text file.

The main procedure which are followed in APMC contains in this project

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- 2) C++ Primer 5<sup>th</sup> edition

### **REFERRED LINKS AND WEBSITES:**

- 1) [Agricultural produce market committee - Wikipedia](#)
- 2) <https://youtu.be/LS1zjr1wog4>

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Though India is gifted with many farmers ,they are not getting valuable prices for their products because of the intermediaries .So to avoid this Government of India established Agricultural Produce Market Committee. (APMC) in which Government sets the price for particular product known as Minimum support price (MSP). When there is no demand for the product in the public ,the price of the product will drastically go down because of this farmer will be in loss ,so in order to help the farmers MSP is introduced. The Farmers and dealers have their


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the open() function is used to open a file either for read from or write into a file. open (filename, mode); there are some mode flags used for filefor example if you want to open a file in write mode and want to truncate it in case that already exists, following will be the syntax - ofstream outfile...

<https://www.scribd.com/document/442476303/chp5-ooop-pdf>

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## 4.3 Data Encapsulation

Encapsulation is defined as combining up of data and information under a single unit. In Object Oriented Programming, Encapsulation is defined as binding together the data and the functions that

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in object oriented programming, encapsulation is defined as binding together the data and the functions that manipulates them.this is what encapsulation is. here the data of sales section and the employees that can manipulate them are wrapped un