A MINOR PROJECT REPORT ON

"WEEKEND FARMING"

Submitted

In the partial fulfilment of the requirements for

the award of the degree of

BACHELOR OF TECHNOLOGY

In

COMPUTER SCIENCE & ENGINEERING

By

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CERTIFICATE

This is to certify that the Minor Project Report entitled **"Weekend Farming"** that is being submitted by **M.J.Manyu (171FA04220), P.Akash (171FA04231), M.Vishal (171FA04218)** in partial fulfilment for the award of B.tech degree in Computer Science and Engineering to the Vignan's Foundation for Science,Technology and Research to the record and bonafide work carried under the co-guidance of the following faculty member of CSE Department.

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ExternalExaminer

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DECLARATION

I hereby declare that the project entitled "**Weekend Farming**" submitted for the **DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**. This dissertation is our original work and the project has not formed the basis for the award of any degree, associate-ship and fellowship or any other similar titles and no part ofit has been published or sent for publication at the time of submission.

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Date: 08th November 2019

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1. Abstract

The cultivation of land is decreasing. The percentage of farmers is degrading. So there is a need of people who can help them out in farming. IT professionals or organizations can rent out a section of a nearby farm through the app.

You can choose whatever is to be grown there and the farmhands, who work in collaboration will do the required work for you. On weekends that you are free, you can drive down to oversee your farm, or work on it yourself.

Our Intention is to help:

- The low percentage of cultivation.
- The farmers who work all the day long.
- IT professionals who want to do something interesting on weekends
- The students understand the importance of farming in future.

2. Introduction:

Weekend Farming is nothing but a farm tour went on weekends and holidays. It is also known as weekend agriculture. The word has come into sounds as many IT Professionals who work for whole week are looking towards enjoying pleasant weekends.

Taking this into advantage, many farmers are making arrangements and agreements facilitate the visitors for weekend farming. we have seen a lot of people who had ancestral farm lands but had given up on farming ,coming back to farming after assurance of a stable income. We also want to bring attention to the women farmers who are generally ignored in the mainstream media

We visit many farms and ask if entrepreneurs are ready to allow the Visitors to cultivate the land during weekends. we make note of all available Land farms and visitors can choose any of the farm near to them and can book the slots. Later, we will inform the farm entrepreneurs about the visitor through the messages or calls.

3. Requirements

3.1 Hardware and SoftwareRequirements

The hardware and software requirements are as follows:

- Pentium processor and above (i5recommended)
- 250 GB harddisk
- Support for Python Libraries
- 2GB Ram and Above (4GBrecommended)
- Needs an Active internet Connection.
- A good resolution Screen of 16:9ratio.
- Fully updated Google Chrome or Mozilla Firefox or Edge internet browser.
- Windows 8 andabove.

32 Functional and Non-FunctionalRequirements

- Machine needs to be either 32 bit or 64 bit.
- Display For Interactive Content.
- Perfect location finding API.

4. Use CaseDiagram

A usecase diagram at its simplest is a representation of a user's interaction with the system that shows the relationship between the user and the different usecases in which the user is involved. There are many different UML diagrams that served different purposes. You can describe those details in other UML diagram types and documents, and have them be linked from usecases.

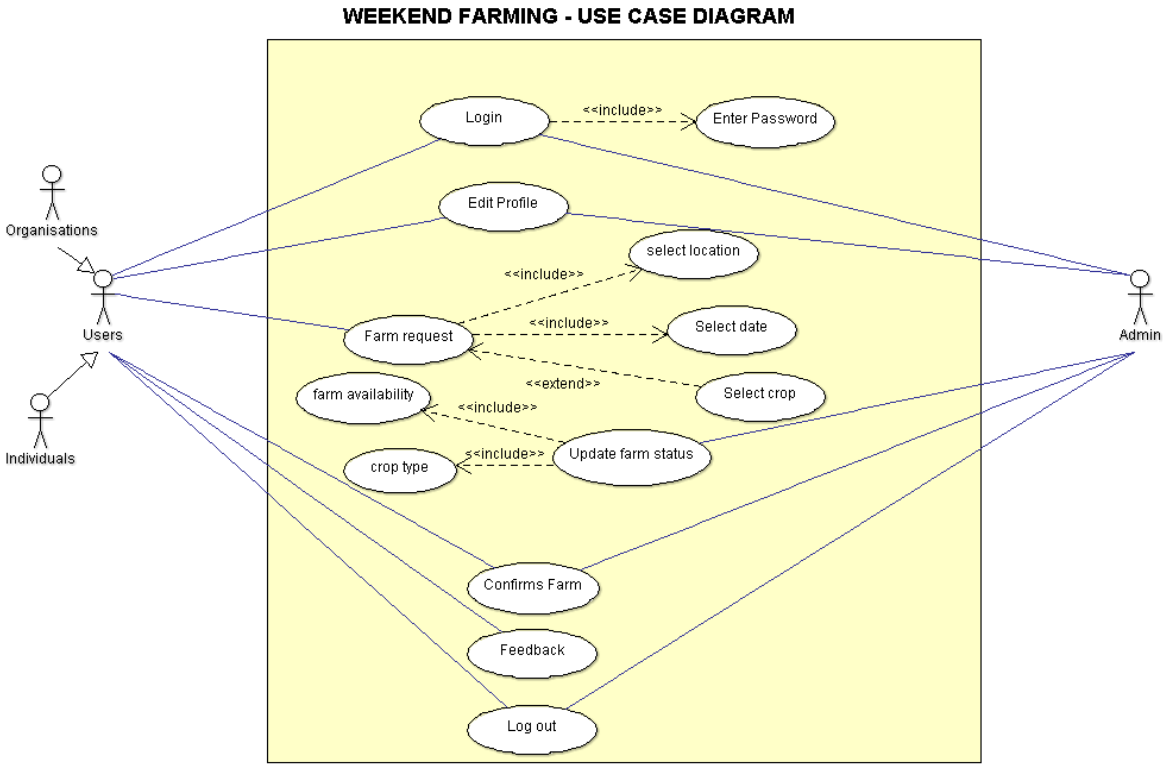
Use cases represent only the functional requirements of a system. Other requirements such as business rules, quality of service requirements, and implementation constraints must be represented separately, again, with other UML diagrams.

A use case diagram can identify the different types of users of a system and the different use cases and will often be accompanied by other types of diagrams as well. The use cases are represented by either circles or ellipses.

Use case diagrams are used to specify:

- (external) **requirements**, required usages of a system under design or analysis (subject) - to capture what the system is supposed to do;
- the **functionality** offered by a subject – what the system can do;
- requirements the specified subject poses on its **environment** - by defining how environment should interact with the subject so that it will be able to perform itsservices.
- Specify the context of a system
- Capture the requirements of a system
- Validate a systems architecture
- Drive implementation and generate test cases
- Developed by analysts together with domain experts

The below diagram clearly shows the use case diagram for the “Weekend Farming”. In **Fig 1** it clearly shows the relation between the User and Admin are responsible for everything.



5. Sequence Diagram

A sequence diagram shows object interactions arranged in time sequence. It depicts the objects and classes involved in the scenario and the sequence of messages exchanged between the objects needed to carry out the functionality of the scenario. Sequence diagrams are typically associated with use case realizations in the Logical View of the system under development. Sequence diagrams are sometimes called event diagrams or event scenarios. These diagrams are widely used by businessmen and software developers to document and understand requirements for new and existing systems.

The purpose of interaction diagrams is to visualize the interactive behavior of the system. Visualizing the interaction is a difficult task. Hence, the solutionis to use different types of models to capture the different aspects of the interaction.

Sequence and collaboration diagrams are used to capture the dynamic nature but from a different angle.

The purpose of interaction diagram is −

- To capture the dynamic behavior of a system.
- To describe the message flow in the system.
- To describe the structural organization of the objects.
- To describe the interaction among objects.
- Used to model and visualize the logic behind a sophisticated function, operation or procedure.
- They are also used to show details of UML use case diagrams.
- Used to understand the detailed functionality of current or future systems.
- Visualize how messages and tasks move between objects or components in a system.

The below diagram i.e. **Fig 2** shows the picture of the sequence diagram of the Weekend Farming. As the sequence diagram shows the sequence of the events that happen.sequence diagram for Weekend Farming about the steps that are to be followed for a perfect selection of farm. Accordingly, the first thing that is done is the selection of Farm location. And the Admin confirms accordingly. The database forwards data and Admin reports back accordingly.The admins can later manage add and maintain the farm details depending on the locations allocated and availability of farm accordingly.

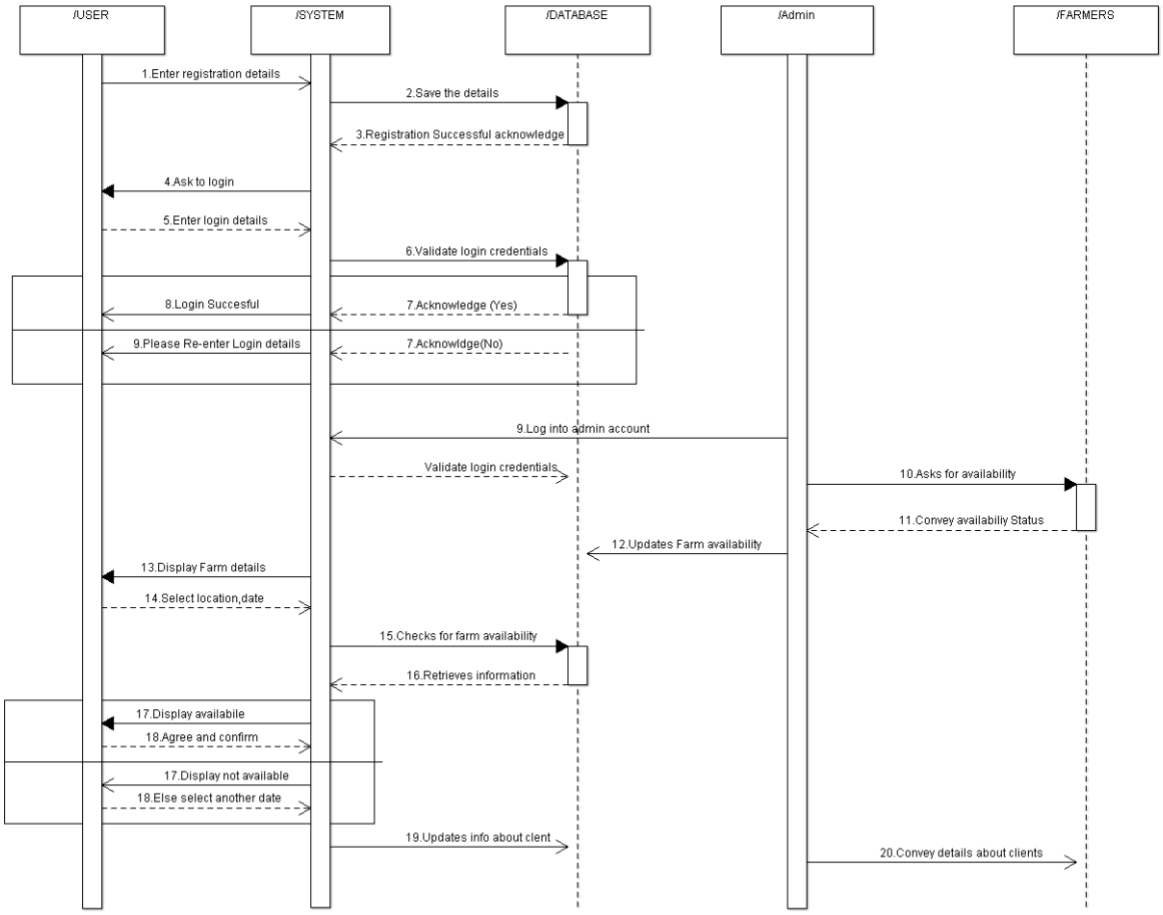


Fig 2

6. Class Diagram

A class diagram in the Unified Modeling Language (UML) is a type of static structure diagram that describes the structure of a system by showing the system's classes, their attributes, operations (or methods), and the relationships among objects.

The class diagram is the main building block of object-oriented modeling. It is used for general conceptual modeling of the structure of the application, and for detailed modeling translating the models into programming code. Class diagrams can also be used for data modeling. The classes in a class diagram represent both the main elements, interactions in the application, and the classes to be programmed.

The purpose of class diagram is to model the static view of an application. Class diagrams are the only diagrams which can be directly mapped with object-oriented languages and thus widely used at the time of construction.

UML diagrams like activity diagram, sequence diagram can only give the sequence flow of the application, however class diagram is a bit different. It is the most popular UML diagram in the coder community.

The purpose of the class diagram can be summarized as −

- Analysis and design of the static view of an application.
- Describe responsibilities of a system.
- Base for component and deployment diagrams.
- Forward and reverse engineering.

The following image i.e. **Fig 3** describes about the class diagram of the Weekend Farming that keenly describes about the activities and their attributes and functions.

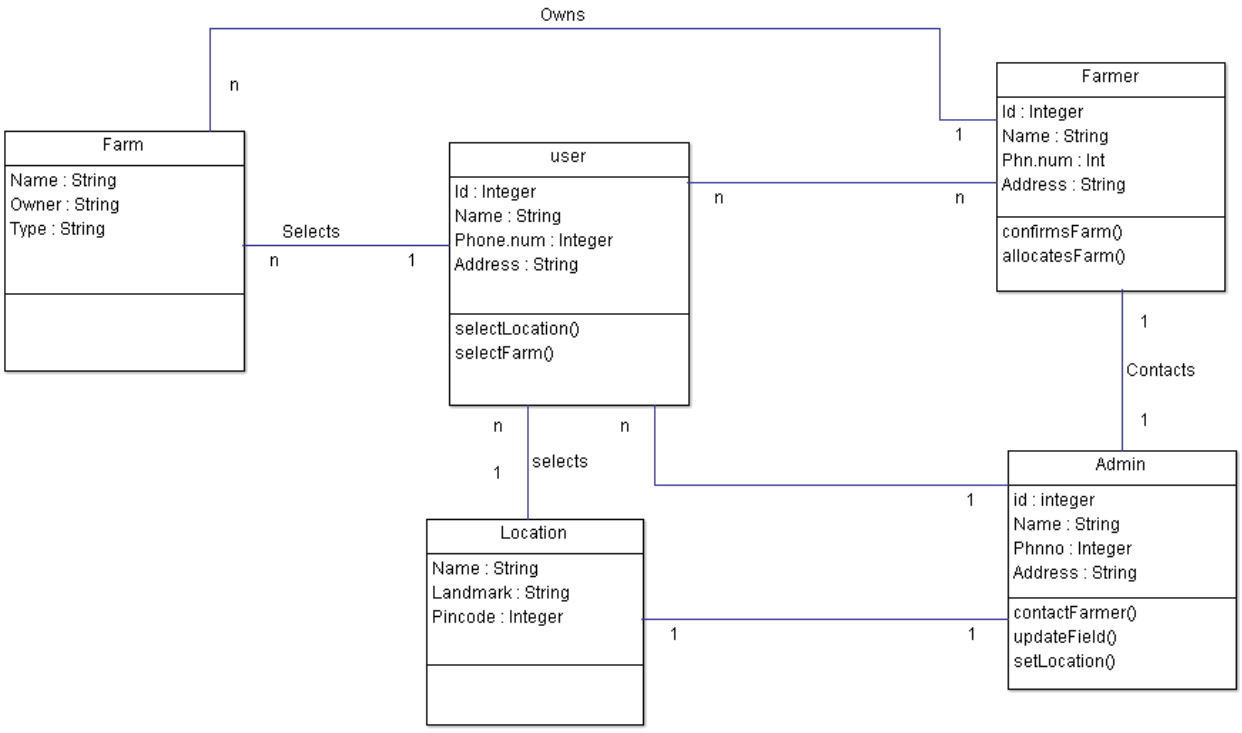

Owns
n
1
Farm
Name : String
Owner : String
Type : String
Selects
n
1
user
Id : Integer
Name : String
Phone.num : Integer
Address : String
selectLocation()
selectFarm()
n
n
Farmer
Id : Integer
Name : String
Phn.num : Int
Address : String
confirmsFarm()
allocatesFarm()
1
Contacts
1
n
n
1
selects
Location
Name : String
Landmark : String
Pincode : Integer
1
1
Admin
id : integer
Name : String
Phnno : Integer
Address : String
contactFarmer()
updateField()
setLocation()

Fig 3

7. Activity Diagram

Activity diagram is defined as a UML diagram that focuses on the execution and flow of the behavior of a system instead of implementation. It is also called object-oriented flowchart. Activity diagrams consist of activities that up of actions which apply to behavioral modeling technology. Activity diagram is basically a flowchart to represent the flow from one activity to another activity. The activity can be described as an operation of the system.

The control flow is drawn from one operation to another. This flow can be sequential,branched,orconcurrent.Activitydiagramsdealwithalltypeofflow control by using different elements such as fork, join, etc

The basic purposes of activity diagrams are similar to other four diagrams. It captures the dynamic behavior of the system. Other four diagrams are used to show the message flow from one object to another but activity diagram is used to show message flow from one activity to another.

Activity is a particular operation of the system. Activity diagrams are not only used for visualizing the dynamic nature of a system, but they are also used to construct the executable system by using forward and reverse engineering techniques. The only missing thing in the activity diagram is the message part.

It does not show any message flow from one activity to another. Activity diagramissometimesconsideredastheflowchart.Althoughthediagramslook like a flowchart, they are not. It shows different flows such as parallel, branched, concurrent, and single.

The purpose of an activity diagram can be described as −

- Draw the activity flow of a system.
- Describe the sequence from one activity to another.
- Describe the parallel, branched and concurrent flow of the system.

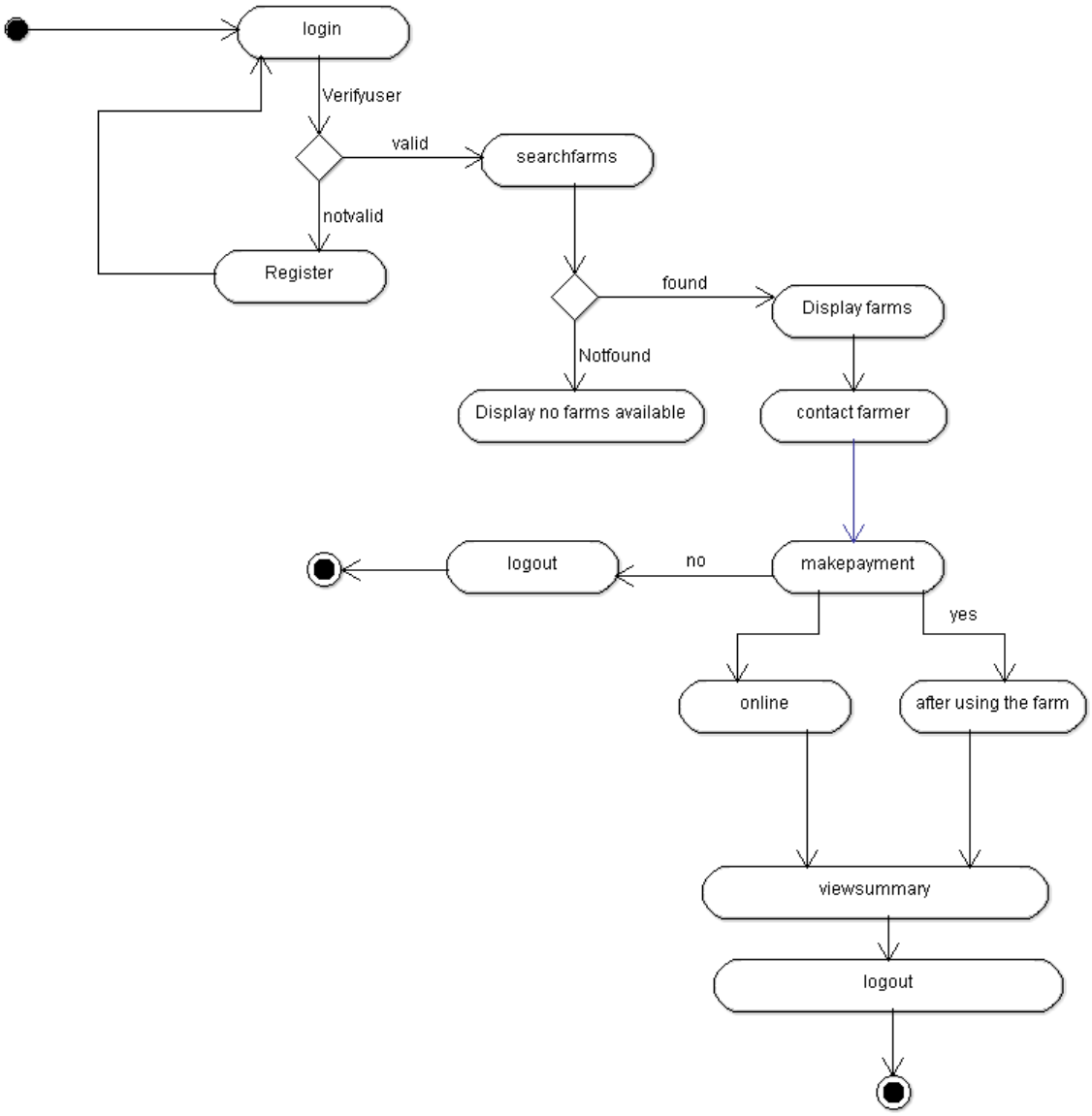
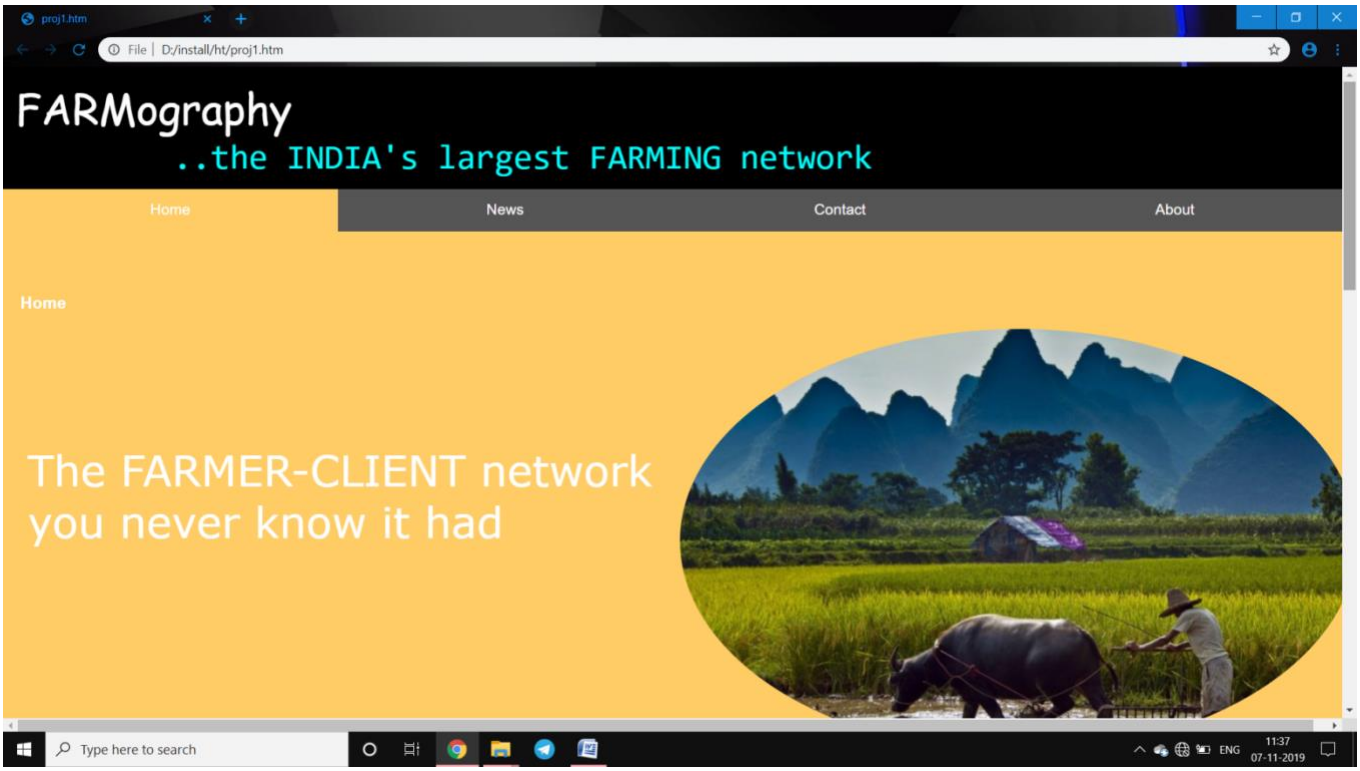


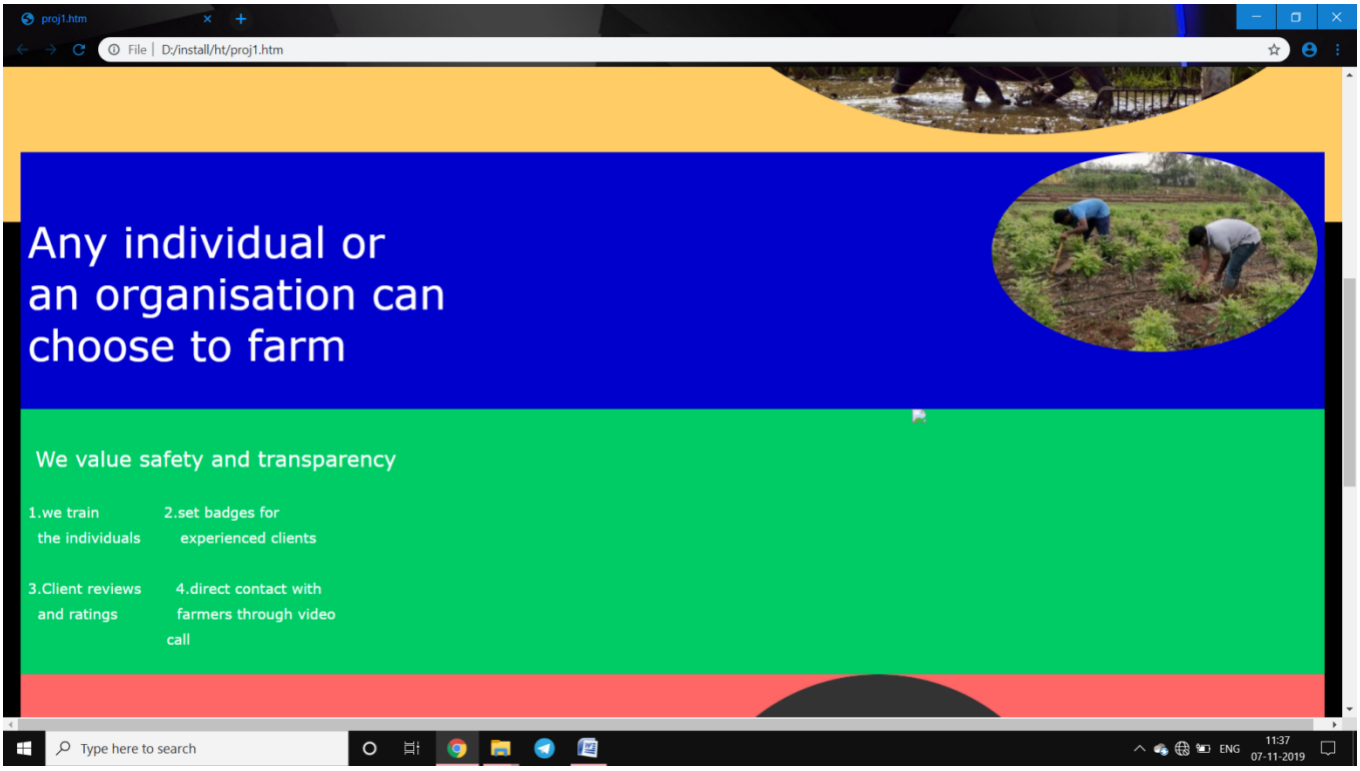
Fig 4

The above **Fig4** shows the Activity Diagram of theWeekend Farming. Admin confirms accordingly. The database forwards data and Admin reports back accordingly.The admins can later manage add and maintain the farm details depending on the locations allocated and availability of farm accordingly.

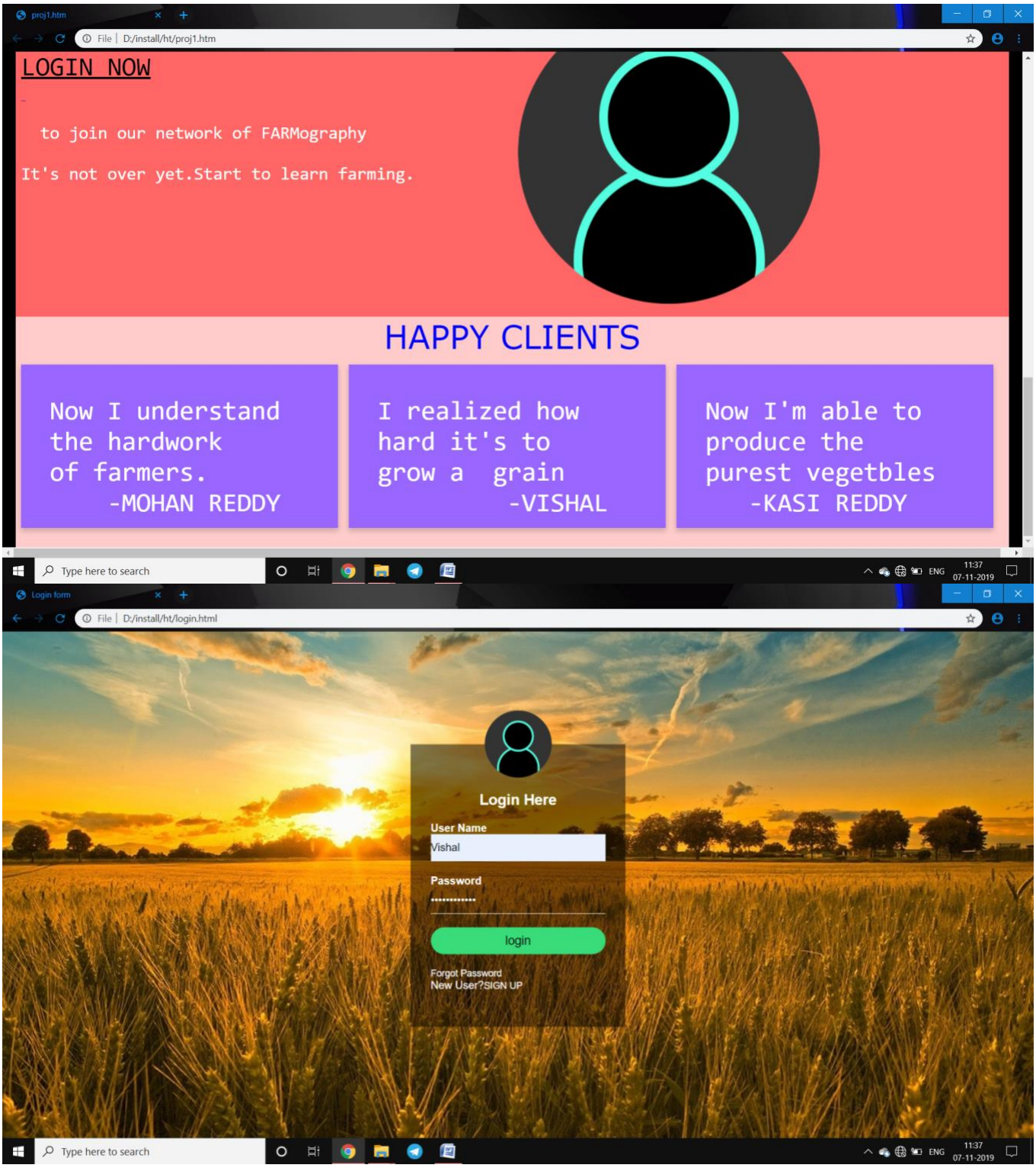
8. Implementation

HOME PAGE

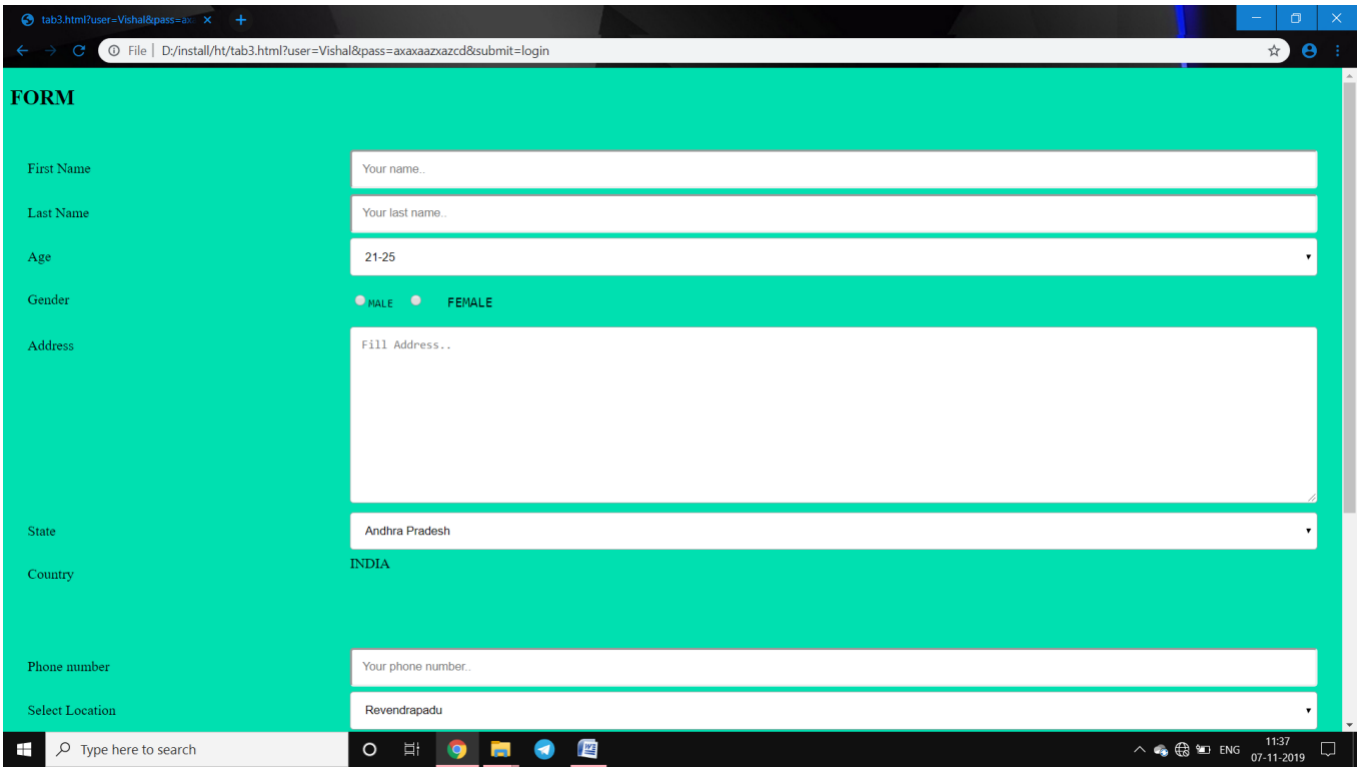


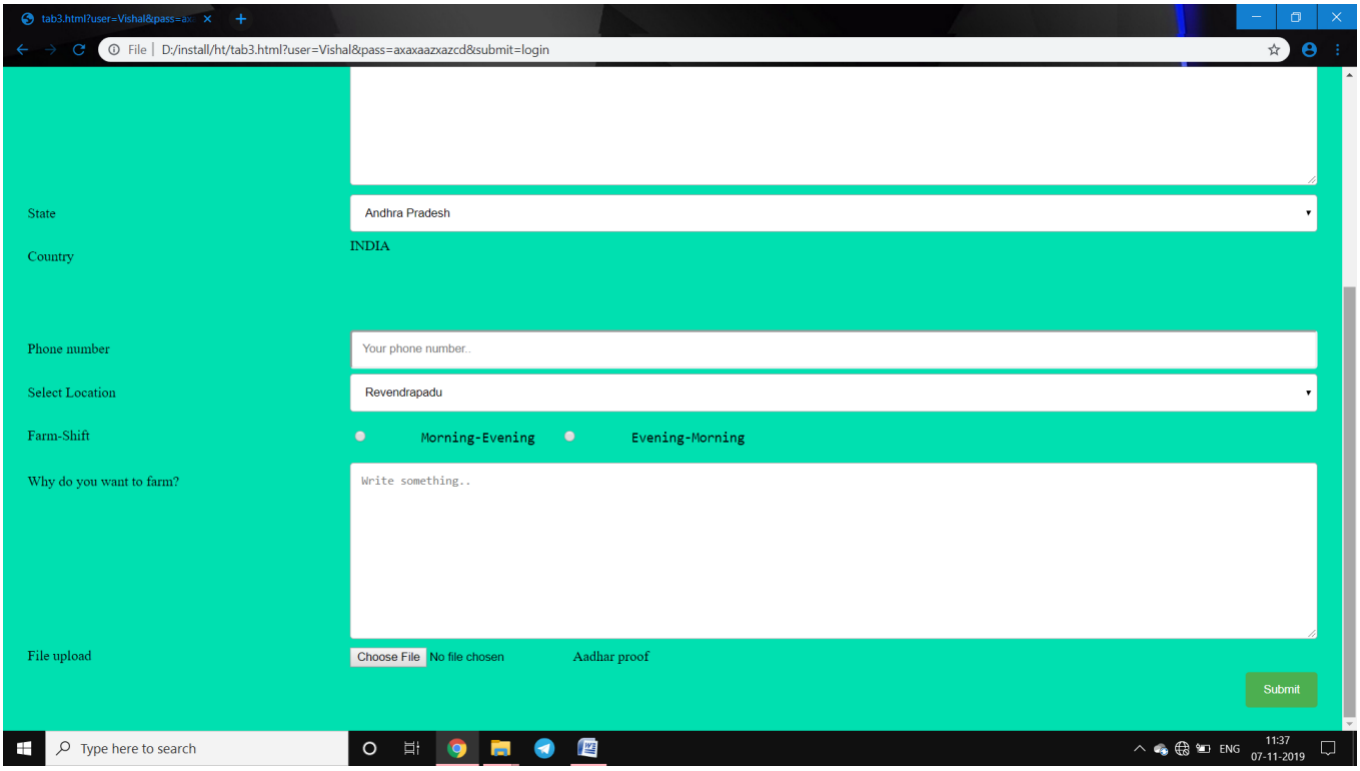


LOGIN CREDENTIALS

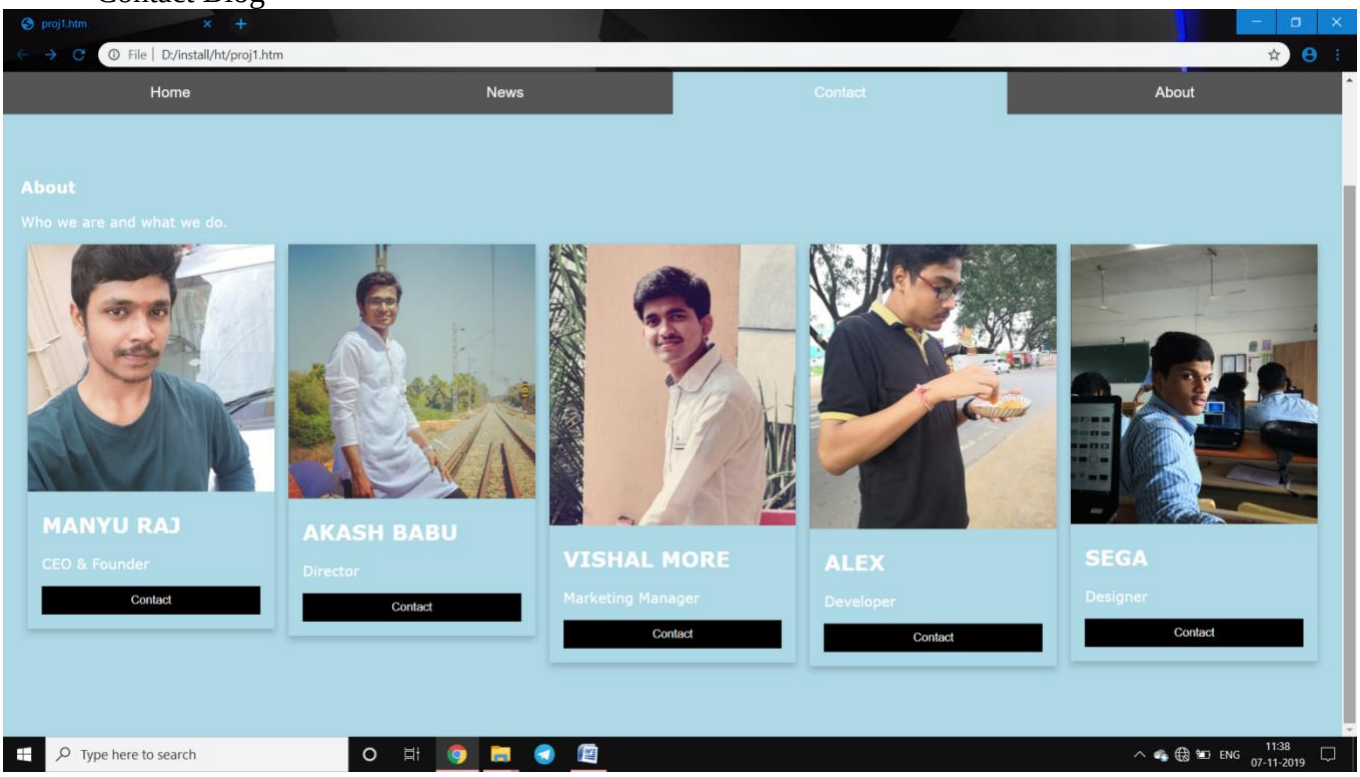


Filling up the forms





Contact Blog



9. Advantages

- Helps Farmers in reducing the work
- Easy to understand the Individual's Needs.
- Useful in allocating farms.
- Helps students to understand the importance of famers

10. Disadvantages

- No direct contact with farmers before choosing farm.
- Need to have a good location identifier.

11. Conclusion

The application allows you to choose whatever is to be grown there and the farmhands, who work in collaboration will do the required work for you. On weekends that you are free, you can drive down to oversee farm, or work on it yourself.

The above model is very much useful in communicating and providing the clients useful information regarding the farm and type of farm to be cultivated in the allocated land. So IT professionals or organizations can choose the farm directly through filling out the form available in our application and can go out on farm tour and have good knowledge on the farming.

12. Future Scope

The Idea just presented and implemented here is just the basic and the start up one.There is a lot to be implemented and this project can be taken to the next level, such as, one can add a good looking GUI to the application, or can introduce new features such as having a good chat with the farm entrepreneurs before going out to cultivate in their land. This becomes the basic platform for larger ideas and greater extensions. The further more developments that can be done are:

- Video chat feature with farm entrepreneurs.
- Reviews and ratings of the farm location.
- Selling the cultivated ones through online.

13. References

13.1 Geeks for Geeks

13.2 Tutorials point

13.3 W3schools

13.4 Uml.org