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Android App to Connect Farmers to Retailers and Agricultural Machinery Rental Business

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Abstract: Agriculture serves the foremost basic task of providing humanity with adequate food provides. The farmer's economy must be met so as to accomplish this task.

One amongst the most effective solutions for fulfilling the task is that the selling of agriculture. It involves the acquisition from farmers of agricultural product. Some farmers square measure unaware of costs of commodities and sell their merchandise to third-party suppliers at low prices, leading to vast losses for farmers. we are going to produce associate degree automaton application of farmer product selling to unravel this way of scenario, that provides higher information of the artefact costs of current selling ways at completely different locations.

This helps to seek out patrons and appropriate sellers. It additionally permits farmers to pick out the most effective position on the marketplace for the products to be sold .

They additionally needed completely different farming machinery for crop production, however they're unable to shop for the high price instrumentation because of poor economic conditions, another alternative left is to require the machines on loan. It helps to make a web-based business management system to confirm that agricultural machinery rental businesses square measure run with efficiency and handled transparently.

Keywords: Agriculture, Farmers, Product, Buyers, Sellers, Agricultural machinery, Management system, Rental business

I. INTRODUCTION

Farmers face numerous troubles due to commercial enterprise strategy, including they might not get the fee for his or her commodity as deliberate there. Other than planting, the farmer additionally controls the transportation, stockpiling or garage this is included into the agribusiness industry.

These physical games withinside the agricultural commercial enterprise of the economic system are deficient. The elements that demotivate the efforts of the farmer are transportation, wherein the farmer has to undergo the price of transportation due to the fact the marketplace is a long way from the location of agriculture. It is the important thing barrier withinside the route of exact advertising and marketing.

Farming regions aren't linked with the aid of using roads to the marketplace location. Because of the shipping issue, lots of agricultural produce is wasted.

The farmer loans the coins to others to shop for the seed at the marketplace. The progressed seeds and fertilizers aren't utilized by farmers, so the product pleasant may be very terrible due to the low fees at the marketplace. Storage centers also are a large challenge for providers and the authorities in phrases of garage.

To maintain and promote their product at the perfect time, farmers want warehouses. In order to preserve reserve stocks, the authorities desires a shop. Due to the shortage of garage centers, lots of produce is misplaced because of the shortage of garage centers, due to the middleman bodies, the farmer does now no longer get sufficient fees for his or her product. Without doing something, the middleman businesses take a main proportion of the farmer's profits. A farmer isn't acquainted with severa transactions for his commodity taking location at specific places or first-rate deals. This know-how is given in a small amount with the aid of using the Intermediate Agency which takes a main rate on it.

The intermediary receives greater profits than the farmer. The present techniques which might be found in agricultural advertising and marketing is absolutely a large loss for the farmers as there are 1/3 celebration marketers who're making fraud fees to cheat farmers .

II. SYSTEM ARCHITECTURE

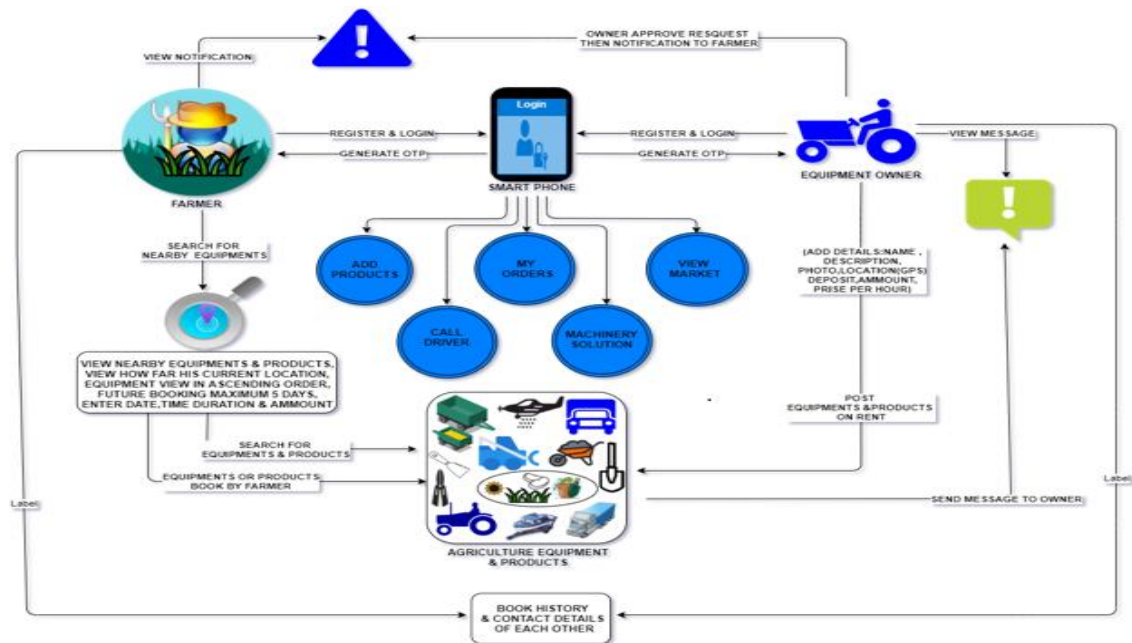
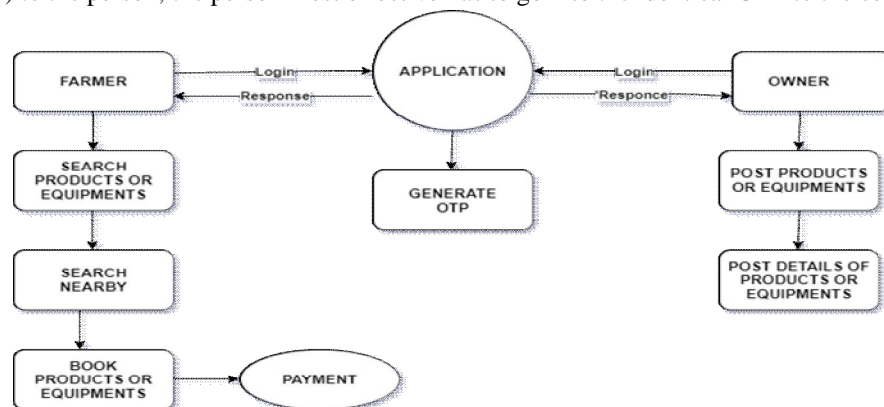


Fig: System Architecture

The proposed scheme ensures a regular marketplace in addition to a higher go back for the farmers and also can address the farmers' primary problems. It safeguards the rights of customers and manufacturers alike. The essential intention of this scheme is to set up a marketplace for farmers to at once promote their merchandise to stores and the meals processing industry. It is an utility for the Android platform that farmers can commonly use to promote their vegetation online. The most important intention of this utility is to get rid of the intermediary agents because, due to the intermediary agents who purchase farmers, they develop at a low charge and promote them at the unique marketplace at a far better charge. Farmers also can hyperlink themselves to the meals processing industries and customers the usage of this app.

III. RELETED WORK

All operations are carried out manually on this and had been finished on cellular technology. We are going to create an Android utility for farmers to lease agricultural device wherein there are key modules. The person will must input it efficiently after acquiring the OTP. The Login web page might be proven each time the person logs for the primary time, in which the person has to go into statistics including call and address, etc. If it's far already registered, the person will continue to the following process. The person (farmer) has to go into his/her cellular range and different statistics within side the registration module, the tool will ship the one-time password (OTP) to the person, the person most effective has to go into the identical OTP to the cellular for confirmation.



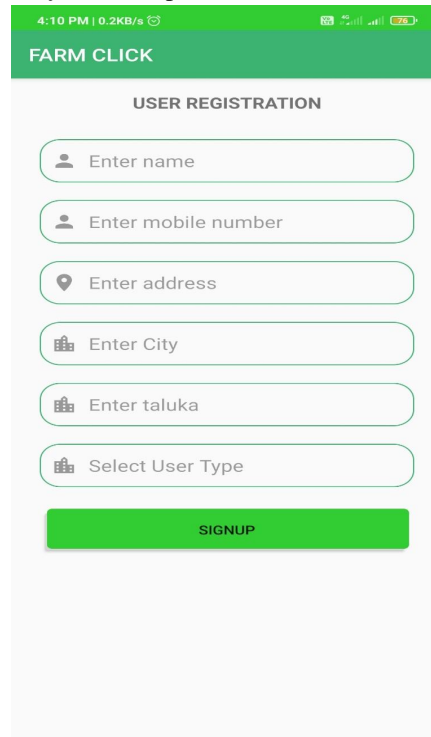
The Store List module consists of a number of shops wherein numerous varieties of agricultural gadget are available. With the call of the alternative person, information inclusive of address, pin code and call quantity of every save is present. Users can also additionally select out any gadget proprietor to hire agricultural gadget on this module. This module consists of each a module for the gadget listing and a module for the listing. A series of gadget used for agriculture is blanketed within side the gadget listing module. Depending on their agricultural requirements, customers can select out any of the system. In this module, the full range of centers to be had in the shop is likewise given. The purchaser will rent the rural system as wanted on this cellular application. This module at the tractor and system enables to view the listing of numerous agricultural system. The person simply has to select out the farm equipment. According to the wishes of a person, this module will take the enter of the variety of hours and additionally degree the full sum. This module presents a listing of agricultural tractors. Users might must ee-e book it to rent an agricultural equipment via way of means of filling in a few information that falls below the reserving module. The reserving module is liable for the operations like hiring the rural device. To lease agricultural device, the person will should input the wide variety of hours, choose date and time. After getting into those information person will should verify reserving, destiny reserving might be executed most five days. Then the person gets the whole fee of the rural device and as a result the reserving might be showed efficiently. The patron will then get the whole fee of the rural device and the reservation will then be efficiently verified. The hire in line with hour should be paid for after the purchaser has booked the rural equipment. As defined through our proposed system, the person can check in with information and get OTP for verification even as every other person also can login through checking out the OTP verification form.

IV.RESULT



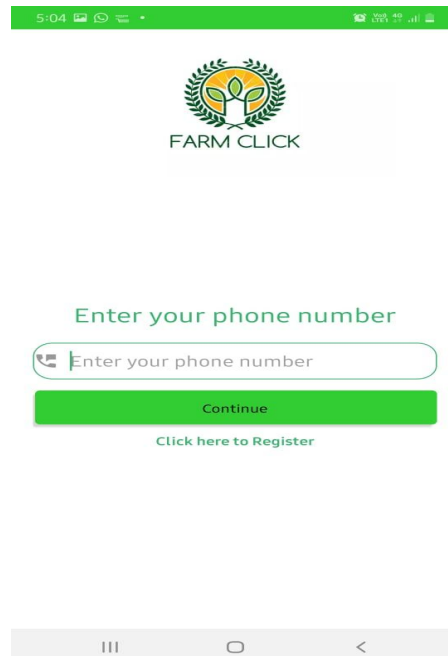
Fig-a) Home page

1) *Login Module*: This module is accountable for the characteristic of logging in. In this module, the person will ought to input a cell quantity first a good way to create an OTP. Users will ought to kind it efficiently after receiving the OTP. The Login web page can be proven on every occasion the person logs for the primary time, wherein the person ought to input facts which includes call and address. If registered already, then the person can continue for the in addition process.



The screenshot shows a mobile application interface for 'FARM CLICK'. At the top, there is a green header with the text 'FARM CLICK'. Below the header, the title 'USER REGISTRATION' is centered. The registration form consists of several input fields, each with a small icon on the left: 'Enter name' (person icon), 'Enter mobile number' (phone icon), 'Enter address' (location pin icon), 'Enter City' (city icon), 'Enter taluka' (city icon), and 'Select User Type' (person icon). At the bottom of the form is a prominent green button labeled 'SIGNUP'.

Fig-b) Registration process



The screenshot shows the login screen of the 'FARM CLICK' application. At the top, there is a green header with the 'FARM CLICK' logo, which features a stylized plant with a sun behind it. Below the header, the text 'Enter your phone number' is displayed in green. Underneath is a white input field with a phone icon on the left and the placeholder text 'Enter your phone number'. Below the input field is a green button labeled 'Continue'. At the bottom of the screen, there is a link that says 'Click here to Register'. The bottom of the screen shows a standard Android navigation bar with three icons: a square, a circle, and a triangle.

Fig-c)Login process

The Login web page might be proven every time the person logs for the primary time, wherein the person should input facts consisting of call and address. If registered already, then the person can continue for the in addition process.

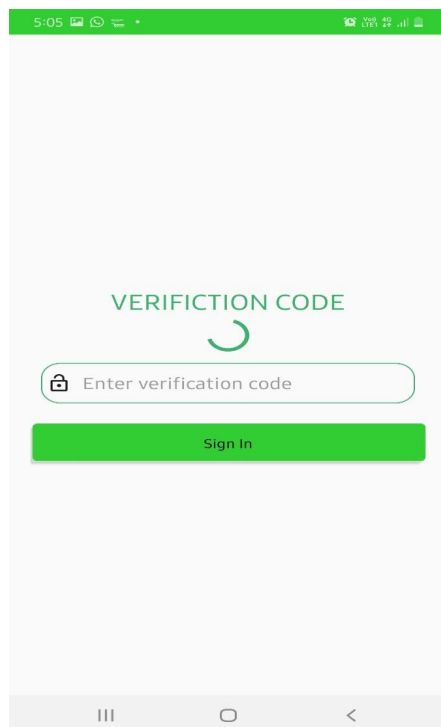


Fig-d)OTP generation

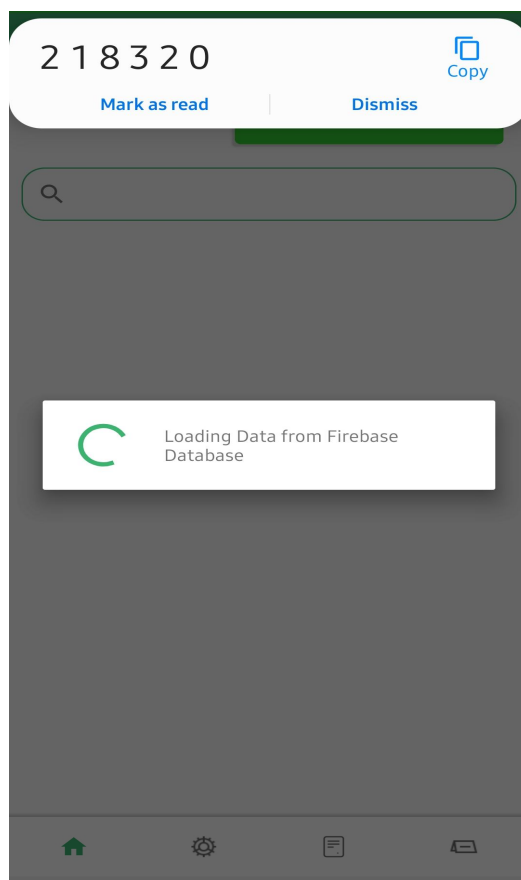


Fig e)loading database

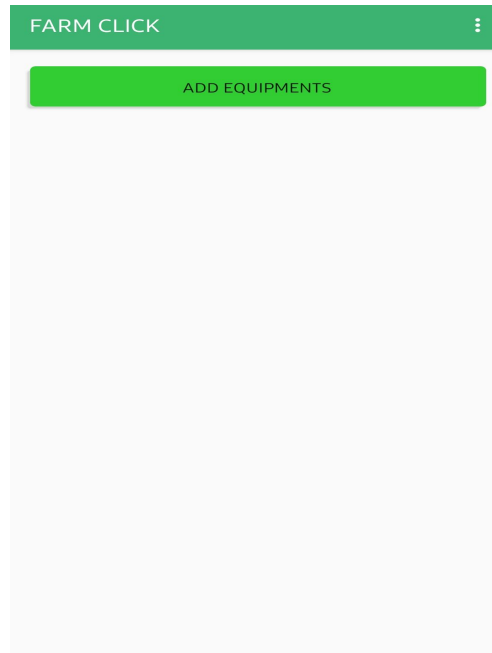


Fig f) add equipment

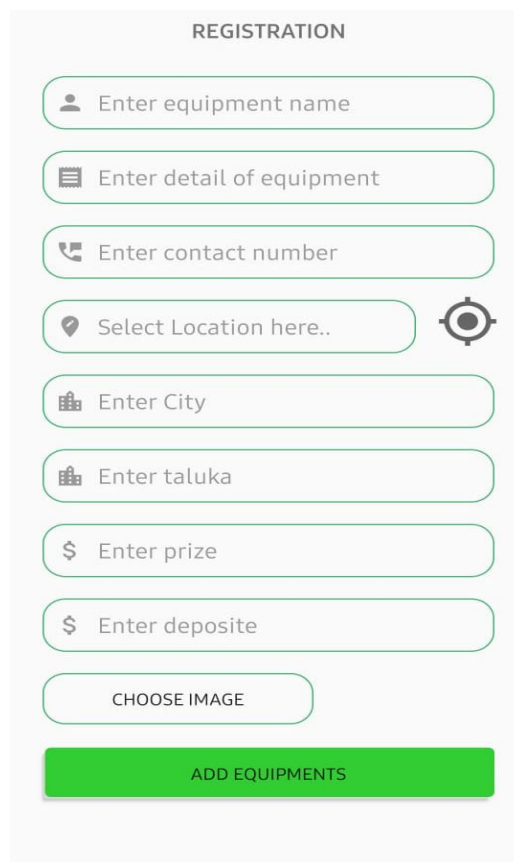
A screenshot of a mobile application registration form. The title 'REGISTRATION' is centered at the top. The form consists of several input fields, each with a small icon on the left: 'Enter equipment name' (person icon), 'Enter detail of equipment' (list icon), 'Enter contact number' (phone icon), 'Select Location here..' (location pin icon), 'Enter City' (city icon), 'Enter taluka' (city icon), 'Enter prize' (dollar sign icon), and 'Enter deposit' (dollar sign icon). To the right of the 'Select Location here..' field is a location selection icon. Below the input fields is a button labeled 'CHOOSE IMAGE' and a large green button labeled 'ADD EQUIPMENTS' at the bottom.

Fig g)registration for equipment

Farming system is issued with the call of the proprietor, facts which includes address, pin code and phone number. Users can also additionally choose any proprietor to rent agricultural system on this module.

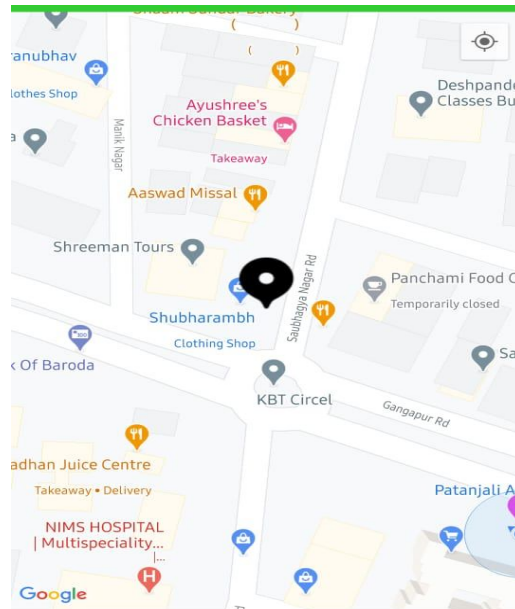


Fig h) set address

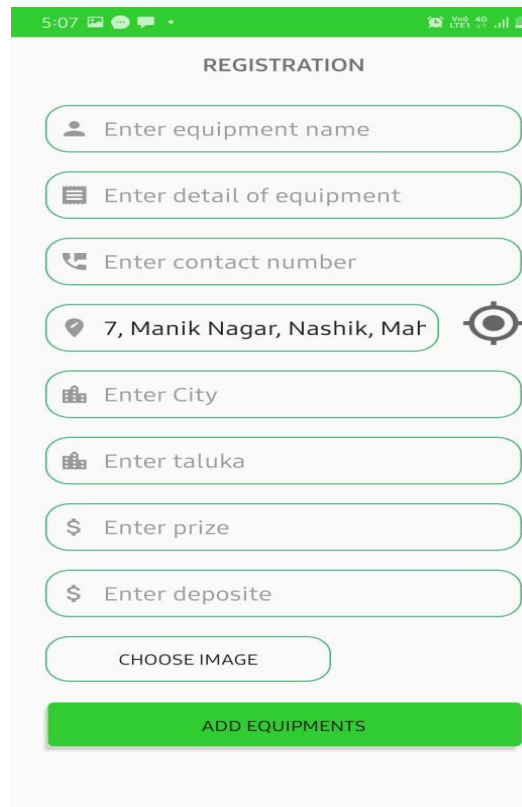


Fig i) address set from map

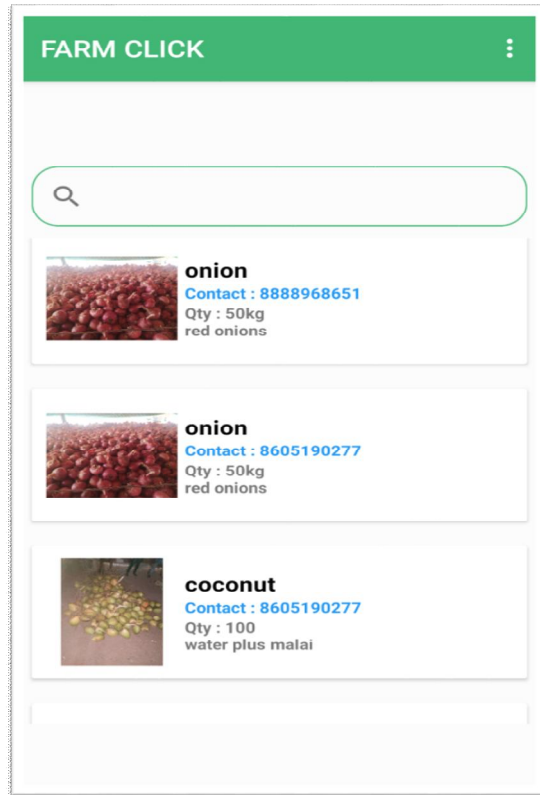


Fig j) product list

2) *Search List Module:* In the hunt listing module, there are numbers of proprietors of the device required for numerous styles of agricultural device. Photo farming device is issued with the call of the proprietor, statistics which includes address, pin code and speak to number. Users can also additionally select out any proprietor to hire agricultural device on this module.

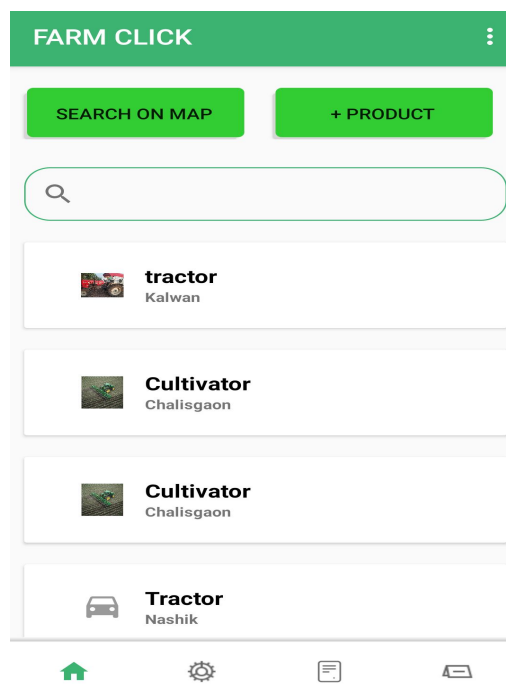


Fig k) equipment list

3) *Module for the Post Equipment List:* This module consists of a listing of gadget for agricultural use. According to their agricultural requirements, the person may also input gadget statistics. With photo, region the usage of GPS, charge according to hour and deposit quantity for that gadget with gadget description, the proprietor may also upload statistics of that gadget

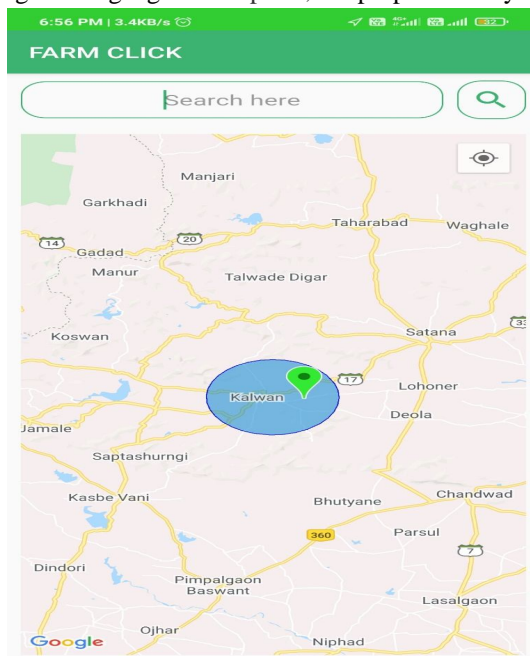


Fig l)search on map

This module consists of each the module for the gadget listing and the module for the rural gadget listing. Equipment may be considered in ascending order via way of means of customer as closest first. The customer can book the gadget for a most of five days withinside the future

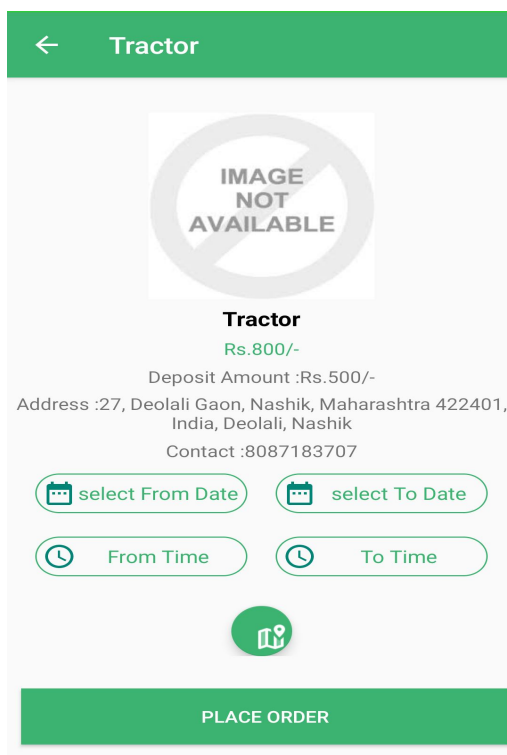


Fig m) place order for equipment

- 4) *Booking Module:* The reserving module is chargeable for matters including the renting of agricultural equipment for sale. The person could must input the wide variety of hours, select out the date and time, to lease a tractor or device. Upon coming into those facts, customers will must verify their reservation. Then the purchaser gets the entire charge of the device for agriculture. If the proprietor can authorize the request, the person can ship textual content MSG to the proprietor, then he can ship textual content MSG with notification. The reserving will then be correctly confirmed. After lively reserving, each customers view the records and get in touch with facts of every other.

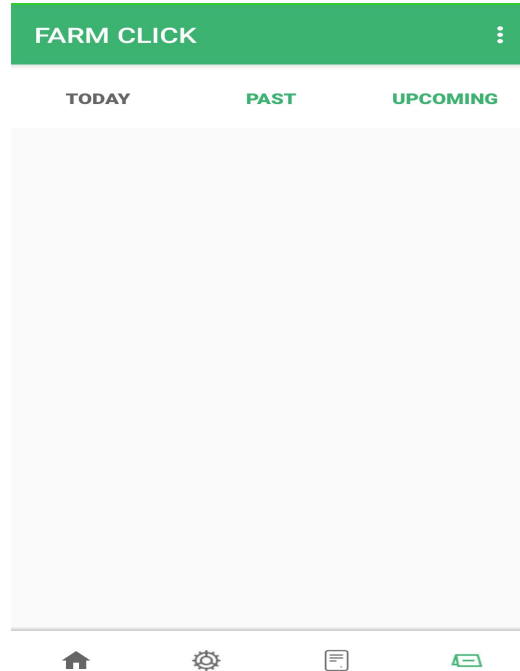


Fig n)status of product or equipment

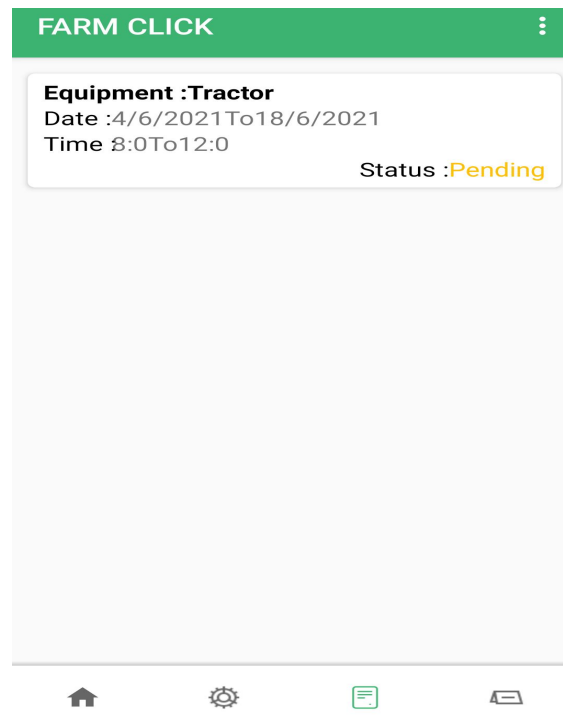


Fig o)request approved or disapproved

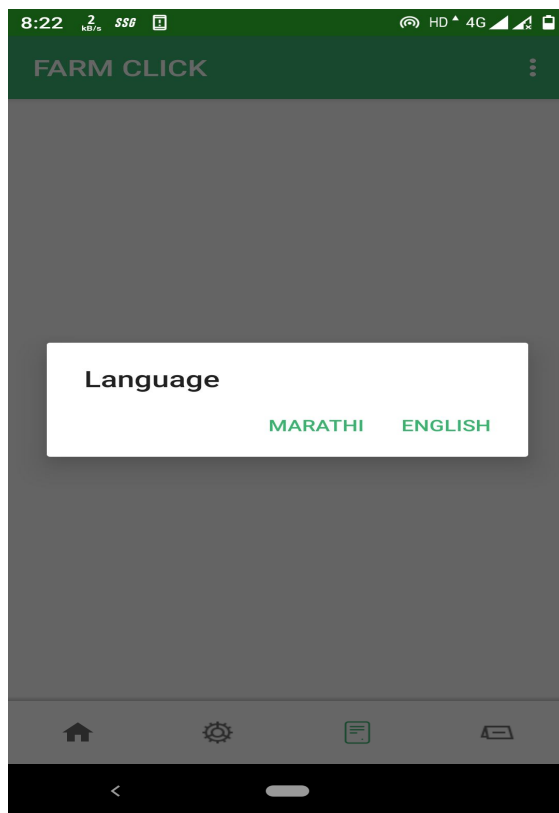


Fig p)language selection

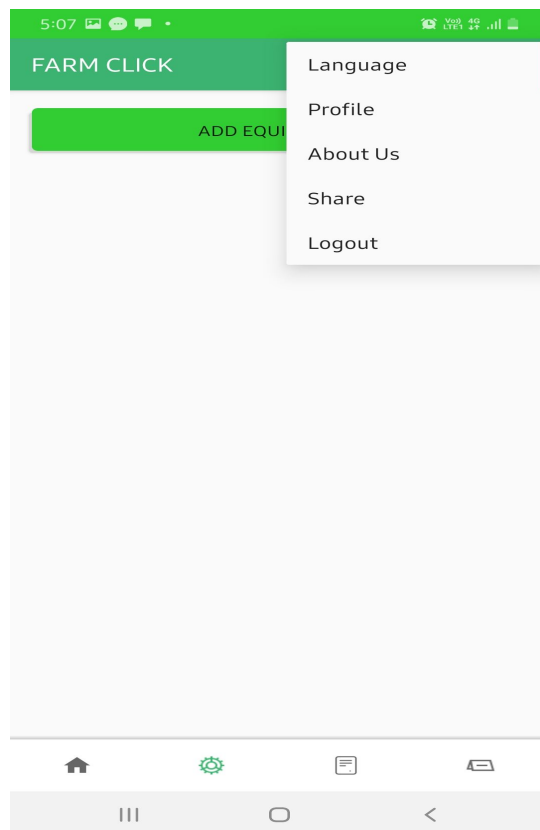


Fig q)other features

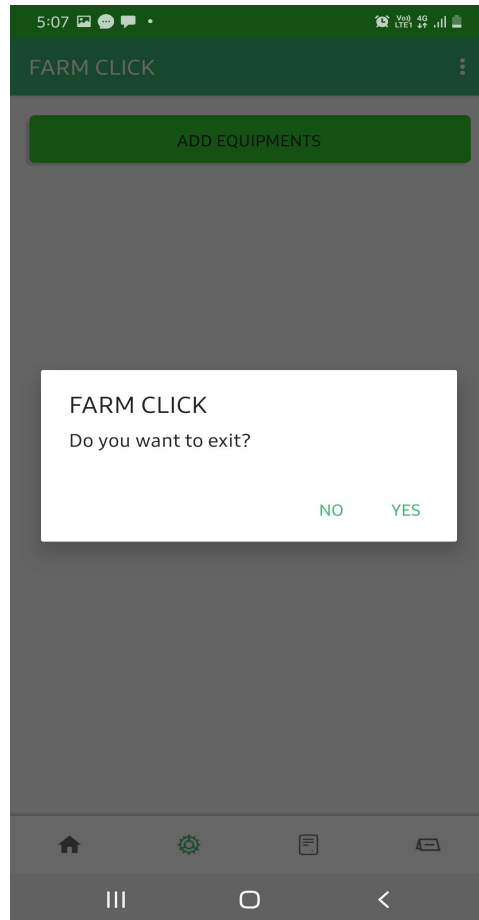


Fig r) exit

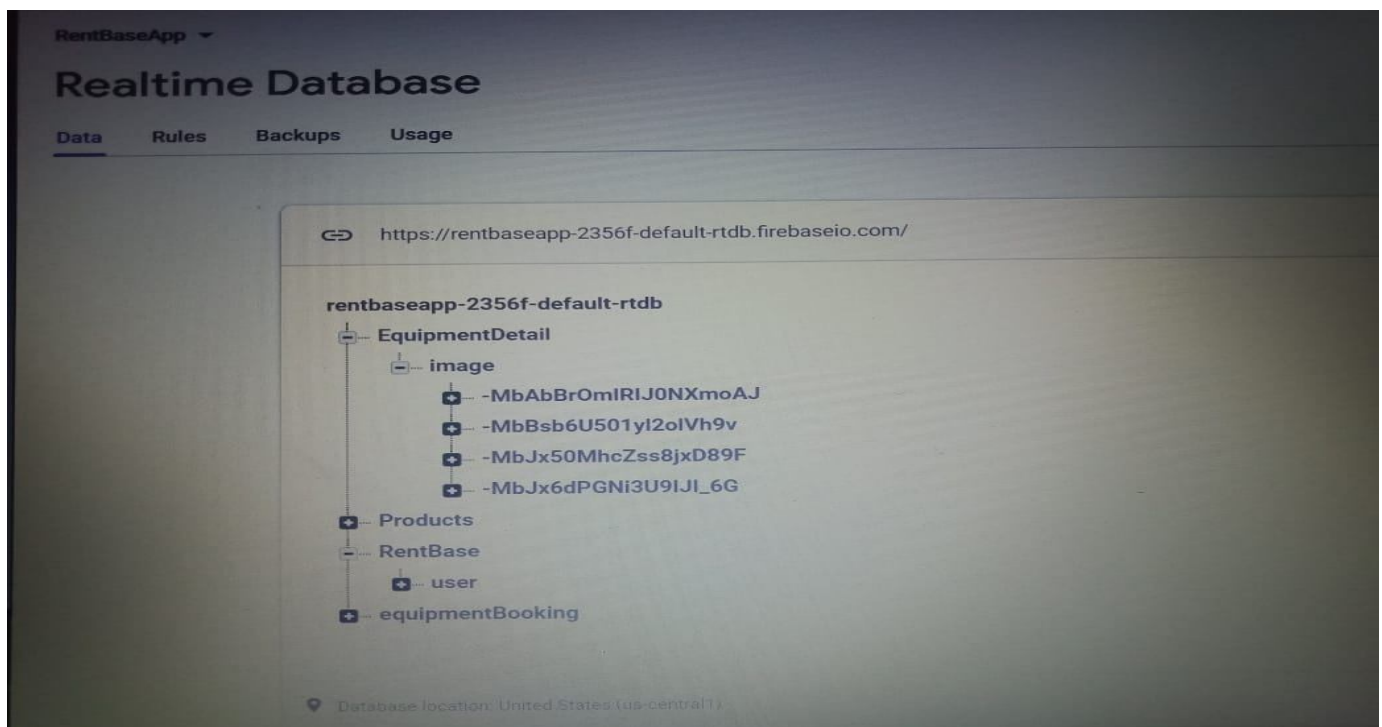


Fig s) firebase data

V. CONCLUSIONS

We finish that the problem declaration is completely removed via way of means of the creation of this task via way of means of enforcing the task, which is 'agricultural system rent-primarily based totally software and on line advertising of agricultural merchandise.' And thru the android program, the purpose is accomplished. This machine might permit farmers and the meals processing and customer industries to acquire a higher return. It safeguards the rights of customers and manufacturers alike. This app is a unmarried window wherein all manufacturers, farmers and customers can come collectively to get their product at similar expenses. The modern agricultural labeling is unorganized, so this app will streamline the fare advertising of the rural business; farmers face many issues promoting their merchandise This app can assist farmers without difficulty promote their product and get proper expenses for his or her product. The app will break up the margin of the dealer among farmers and retailers/FPIs. Lower costs pays families. The app might lessen the touch hole among farmers and retailers/FPI because it will offer farmers with a discussion board for promoting their merchandise at an affordable fee and at a marginal loss. The important touch hyperlink among farmers and the distributors/FPI is the marketplace.

VI. ACKNOWLEDGMENT

It gives us great pleasure in presenting the preliminary project on 'Android app to connect farmer to retailer and agricultural machinery rental business'. I would like to take this opportunity to thank my internal guide Prof. N.R.Wankhade for giving me all the help and guidance I needed. I am really grateful to them for their kind support. Their valuable suggestions were very helpful. I am also grateful to Prof. N.R.Wankhade, Head of Computer Engineering Department, Late G.N.Sapkal college of engineering for his indispensable support, suggestions. In the end our special thanks to Computer Engineering Department for providing various resources such as laboratory with all needed software platforms, continuous Internet connection, for Our Project.

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