Contents

1. Introduction:
   Until now, there are very few apps developed which helps farmer in cultivating his crop. Our app supports farmer in entire cycle of cultivation of crop and also in marketing the crop. App helps the farmer in assessment of suitable conditions for harvesting the crop based on weather forecast, also complaisant to farmer to know the current prices of crops and many other features.

2. Install App:
   Download the app from https://github.com/nagakrishna/ASE-Project/tree/master/APK then install on android device.
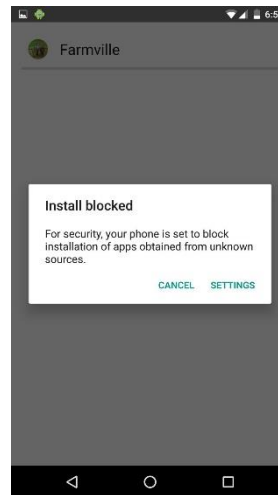   If you encounter below error.

Figure 1: Installation Blocked

Follow below steps
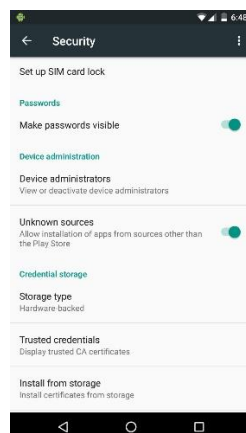Go to Settings -> Security -> Unknown sources

Figure 2: Allow Installation from unknown sources

3. Application Features:
    1. Registration
    Fill the name, email, password and contact number and press Register button to signup to the application.
    2. Login:
    Enter correct email and password then press login button to login to the application. Once user enter correct credentials, user will be redirected to home page.
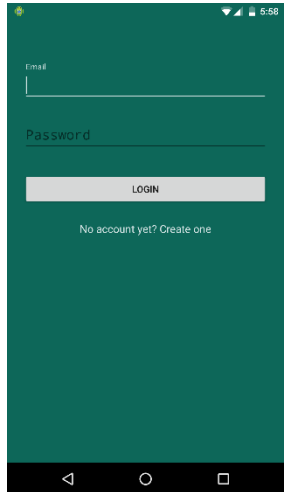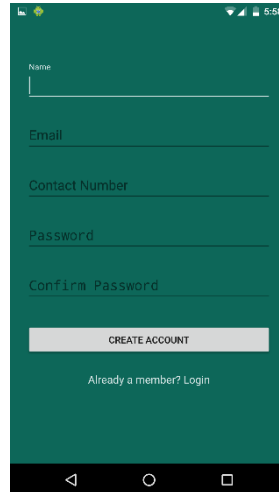

Figure 3: Login Screen

Figure 4: Registration Screen

    3. Home Page:
    Home screen consist a navigation activity, which shows the details of user. Navigation menu consists of below options.
        a. Home
        b. Conversations
        c. My Posts
        d. About
        e. Share
        f. Logout

    Apart from navigation menu, home screen consists of below menu options

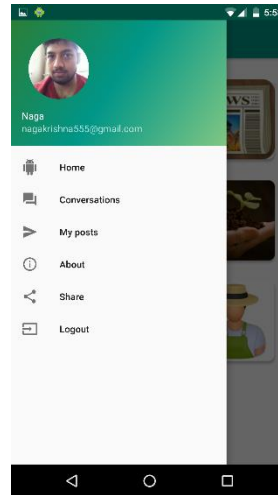| Weather	Seller/Buyer	News
Journals	Live Market Prices	Suggestions
Market Locations	Settings	Account

Figure 5: Home Screen

Figure 6: Navigation Menu

4. Weather

   Weather forecast for coming five days is shown for below details.

   a. Temperature
   b. Temperature Max
   c. Temperature Min
   d. Description
   e. Pressure
   f. Humidity
   g. Wind Speed
   h. Clouds

Figure 7: Weather

5. Seller/Buyer:

    User can post product details which he want to sell. Also can buy the products from other Seller.

    Seller: Fill the below details shown the screen:

    a. Product Details
    b. Quantity
    c. Description
    d. Take the picture of the product by clicking the image which open camera application.
        Then click on the post button, all the details will be saved.
        Now slide to left or click on Buyer tab at top. This will redirect to Buyer Activity.

    Buyer: A list of products available to buy from different sellers registered on the application are shown.

    Click on any product, below details of the seller will be loaded.

    a. Name
    b. Contact Number
    c. Address

    Click on contact number, phone call will be placed with the current number.

    Click on maps, address of the seller will be shown on google maps.

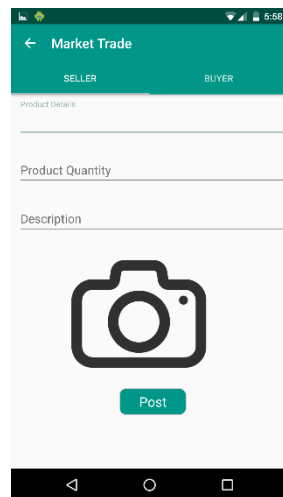   Click on 'chat with username', a conversation will be initiated with the seller

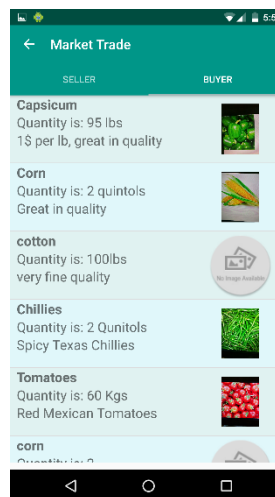*Figure 8: Seller Module*
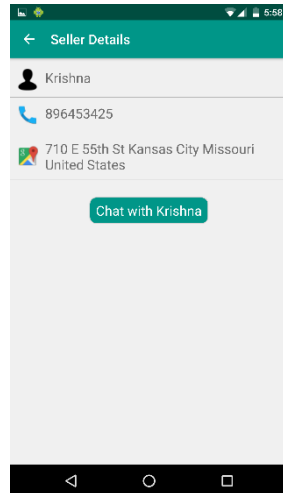

Figure 9: Buyer Module

Figure 10: Seller Details
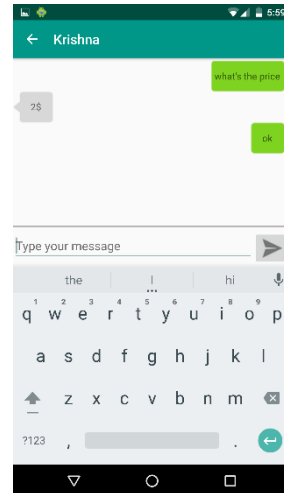

Figure 11: Chat with Seller

6. News

    Latest agriculture news are displayed in list view with below details.
    a. Title
    b. Article
    c. URL of full article

    Click on the URL, full article will be loaded in the browser.
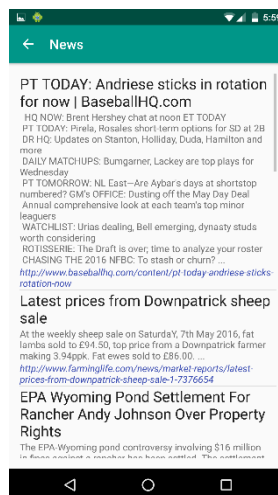

Figure 12: News

7. Journals

    Latest journals related to agriculture are shown in list view with below details.
    a. Title of Journal
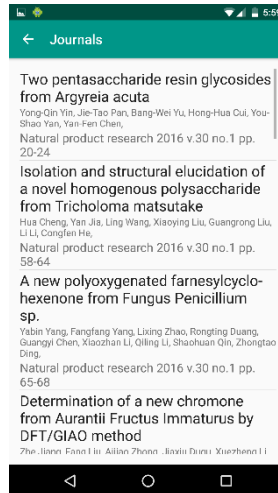   b. Authors
    c. Vol no.

Figure 13: Journals

8. Live market prices

   Latest market prices of the products are available. Select a crop from the dropdown and click on GetPrice. Below details of crop are displayed.
   a. Vegetable – name of vegetable
   b. Form – type like frozen, fresh or canned
   c. Average price/pound – price in $
   d. Average price/cup – price in $
   e. Last updated – date of last updated

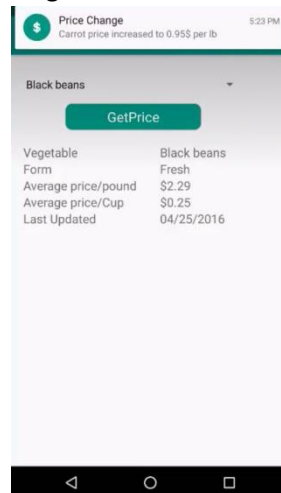   Notifications are sent on price change.

Figure 14: Live Market Prices

9. Suggestions

   Select the crop from the dropdown and click Search Crop. Below details will be shown
   a. Fertilizers – Suggested fertilizer for crop is shown, click on the fertilizer, details of the fertilizer will be shown in browser.

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b. Insecticides - Suggested Insecticide for crop is shown, click on the Insecticide, details of the Insecticide will be shown in browser
c. Temperature – This the ideal temperature where crop can be cultivated
d. Suggestion – Compares current temperature with ideal temperature range and predicts weather this is right time to cultivate crop.
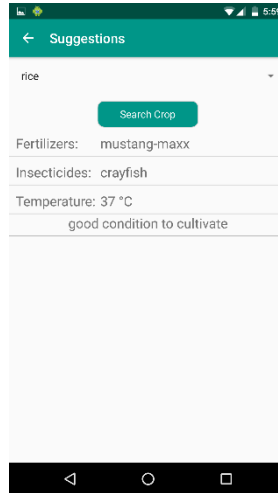

Figure 15: Suggestions

10. Market Locations:

All nearby market locations are shown along with below details in list view:
a. Market Name
b. Market Address
c. Distance from current location

Click on the market name, address of market will be loaded in google maps.

Figure 16: Market Locations

11. Account
    User can manage his profile here. Below options are shown
    a. Change Name
    b. Change Email
    c. Change Password
    d. Change Address
    e. Change Profile Picture
    f. Change Address

    Click on the corresponding option to update any of the profile details.

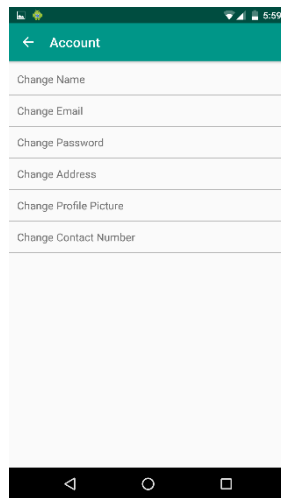*Figure 17: Account*

12. Navigation Menu:
    Provides below features
    a. Home – redirects user to home page
    b. Conversations – All previous conversations with sellers are shown here.
    c. My Posts – Can view all previous posts posted by user. A list view with below details will be shown:
       1. Product
       2. Quantity
       3. Description
       Select any item by clicking, bubble on right will be highlighted. Then user can either delete or edit the item using option provided at bottom of screen.
       a. Edit: All the details can be updated
       b. Delete: Currently selected item will be deleted.
    d. About – Application features and technologies used to build the application are listed.
    e. Share – User and recommend this application to friends, github url containing APK will be shared with users.

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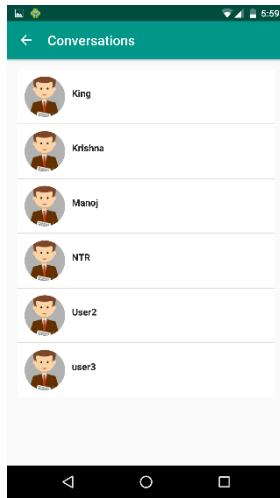f. Logout – On clicking logout, user can logout from application.
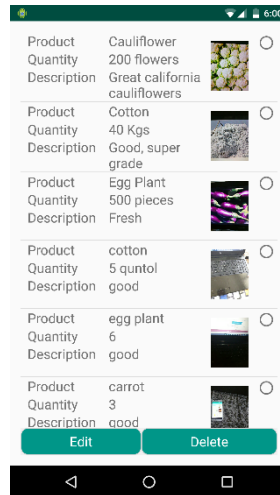

Figure 18: Conversations
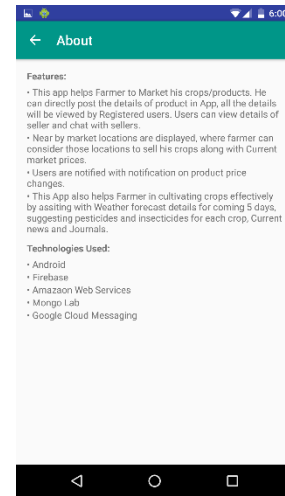

Figure 19: My Posts

Figure 20: About

4. Error recoginition and Handling

For Android devices 6.0 and above, if you find unfortunately application has stopped, make sure that all permissions are granted to application.

To do that manually:
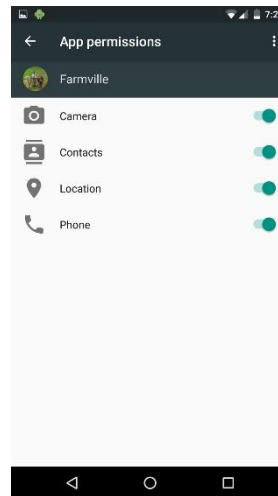Go to: Settings -> Apps- -> Farmville -> Permissions

Figure 21: App Permissions

At present this are done manually, in next release this app requests permissions at runtime.

5. Known bugs and Definciencies:

All the below bugs will be fixed by next release.

1. While user creating a post, if user click image to take new picture and suddently if backbutton is pressed without taking new picture App stops unfortunately.

At present this is only one bug, if you find any please feel free to repot bugs to nagakrishna555@gmail.com.