FDC *App* - MNCFC version 1.1

**Remote Sensing Applications – Area, National Remote Sensing Centre
Indian Space Research Organisation**

nrsc

**Developed by:
Application Software
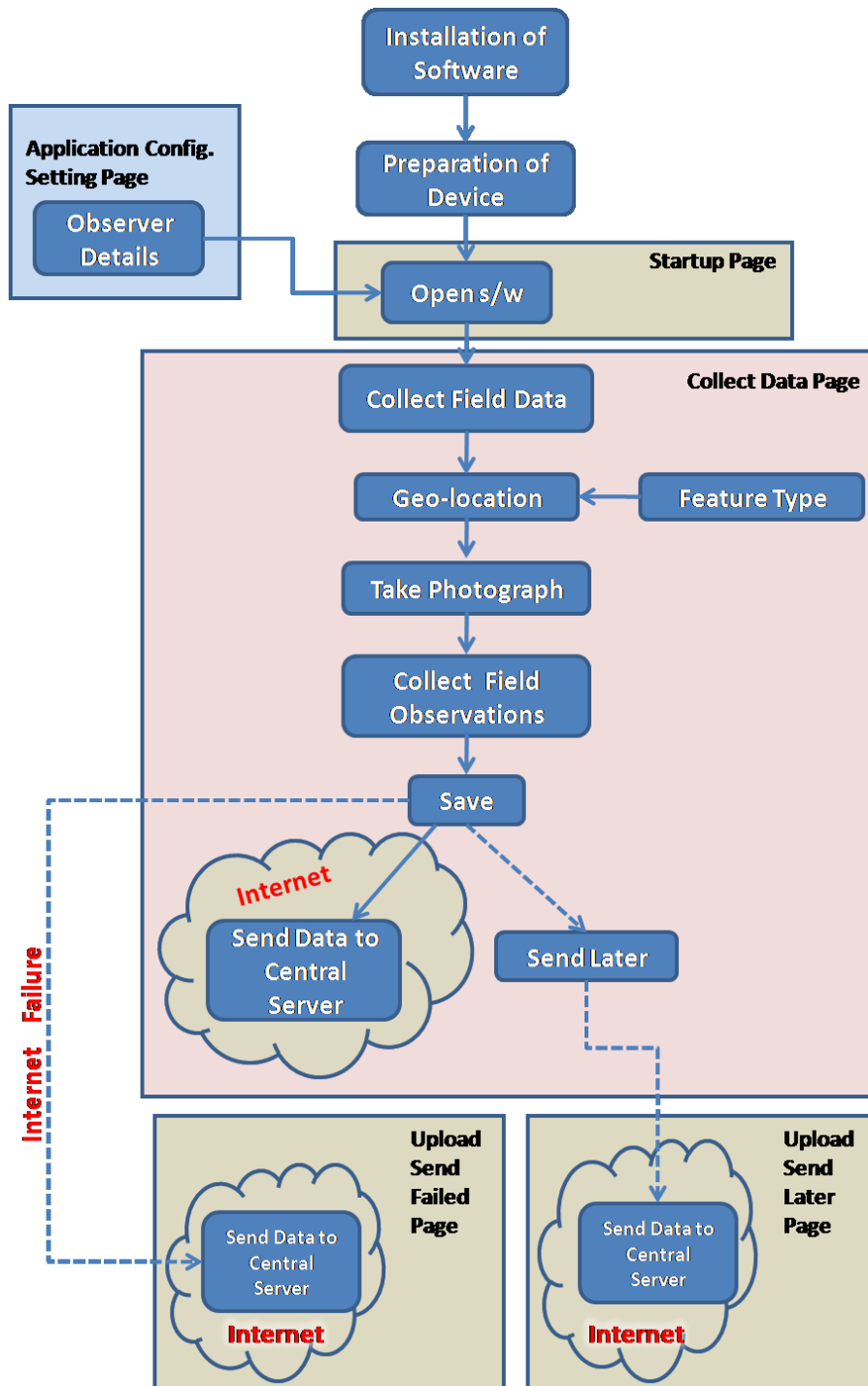Development & Computational
Infrastructure Group**

2013

B A L A N A G A R , H Y D E R A B A D , A N D H R A P R A D E S H , I N D I A

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1 Work Flow:

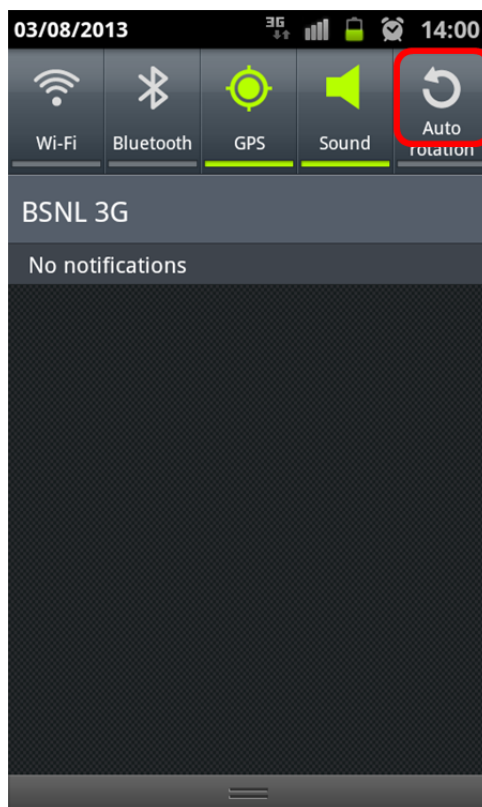The work flow of field data collection using smart phone (android OS)

2   Preparation of Device:

Initially there are two parameters to be set in the mobile before opening the software.
a. Switch off auto-rotation screen and
b. Change camera setting (i.e.) lower the camera resolution that adjust to data volume of the mobile's camera cache in OS.

The following are steps to prepare the device to collect field information using developed application.

a. Switch off auto-rotation of the mobile screen: Scroll the screen from top to bottom which opens a GUI with option to switch-off. Tap on the auto-rotation icon to de-highlight (i.e.) switch-off auto-rotation.

b. Change camera setting that lower the camera resolution which adjust to data volume of the mobile's camera cache in OS:

Steps: 1. Click on the camera icon on screen >> 2. Click on camera setting >> 3. Scroll for camera resolution and tap on the resolution icon for drop down menu >> 4. set the lowest resolution.
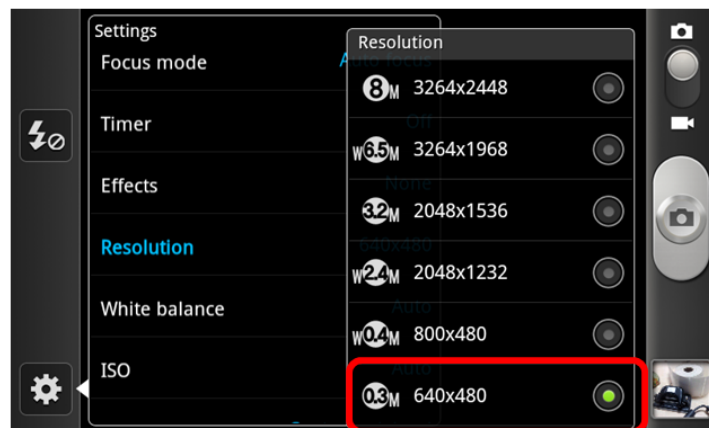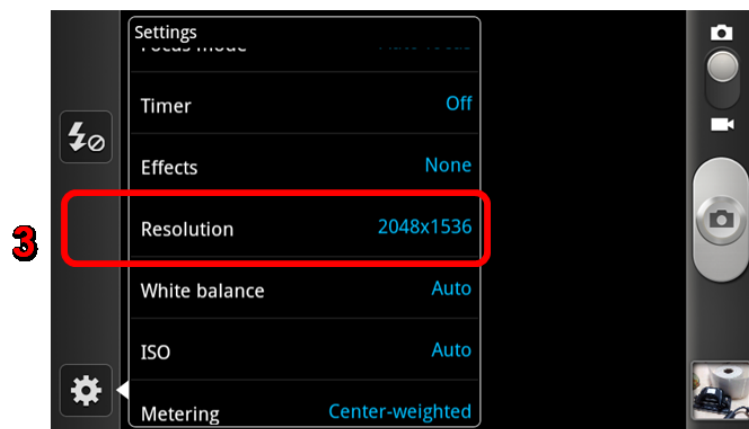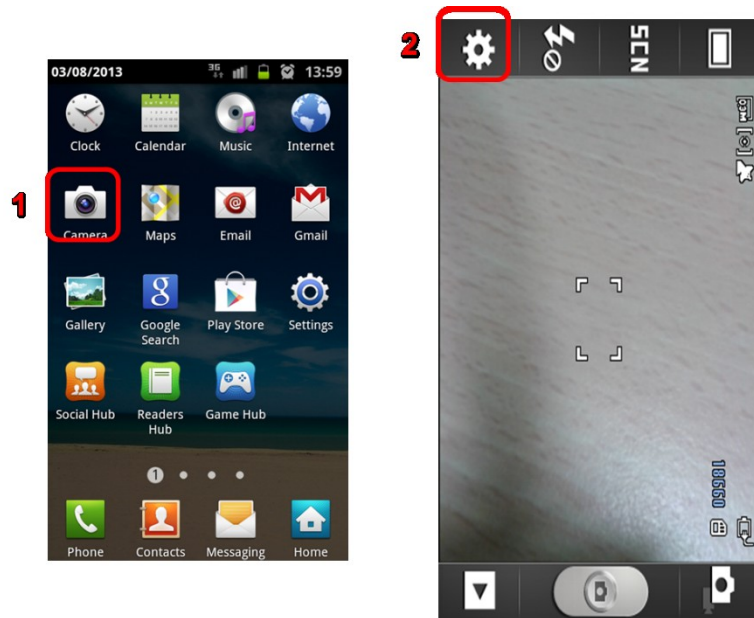
3   Observer Details:

The observer details are part of Application Configuration setting page and they are entered by observer expect device identification number (Device ID) which is entered by project administrator and the process is one time job until changes in details. The Other details are Observer Name, Device mobile number and Organisation that are entered by observer.

Steps: 1. Application Config. Setting >> 2. Enter the details >> 3. Save Changes
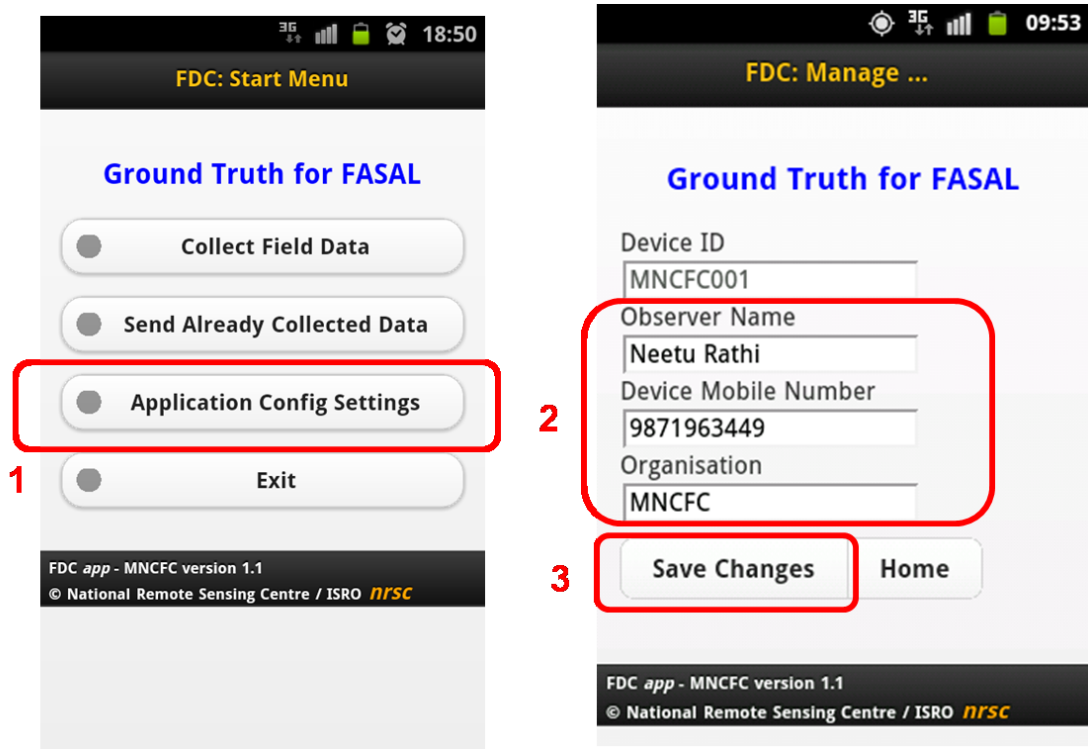
4 Field Data Collection, Save & Send:

Features of Field data collection page

Provision to select different feature type (tap on the button)

Lat/long information is displayed, initially this will not appear and wait till it appears.

Click on "Pick Point" button to get geo-location of the point and unpick point button to remove collected point.
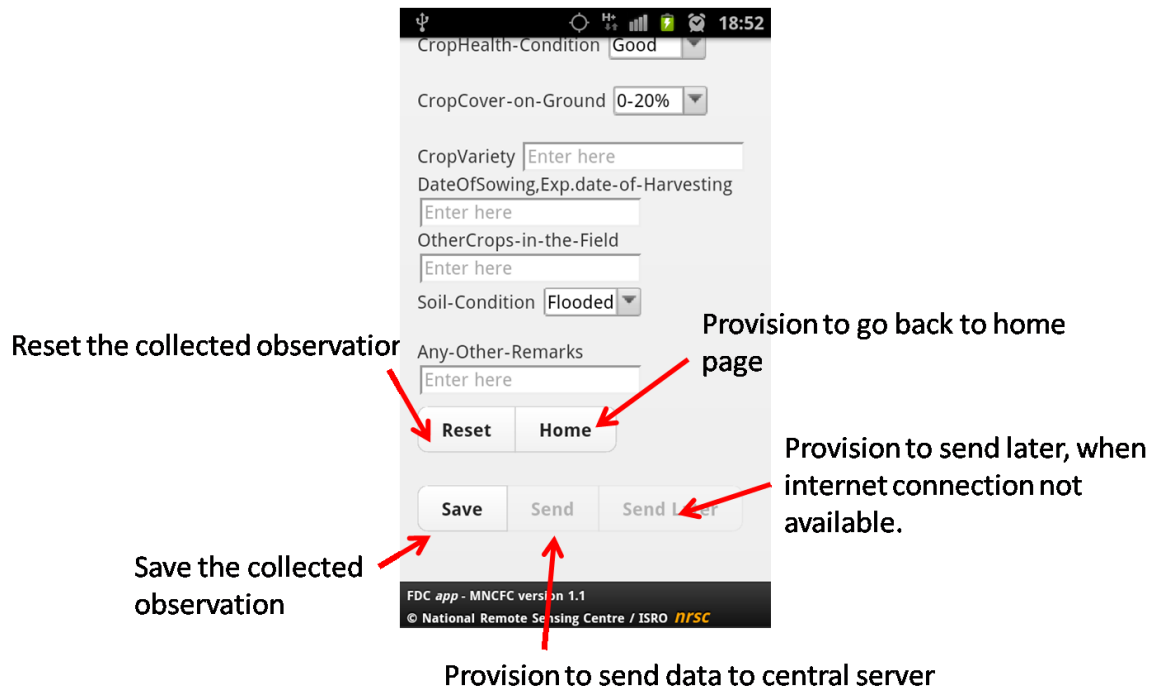
The picked points are displayed in the list box.

Take Photo button to capture photograph (limited to 2 nos)
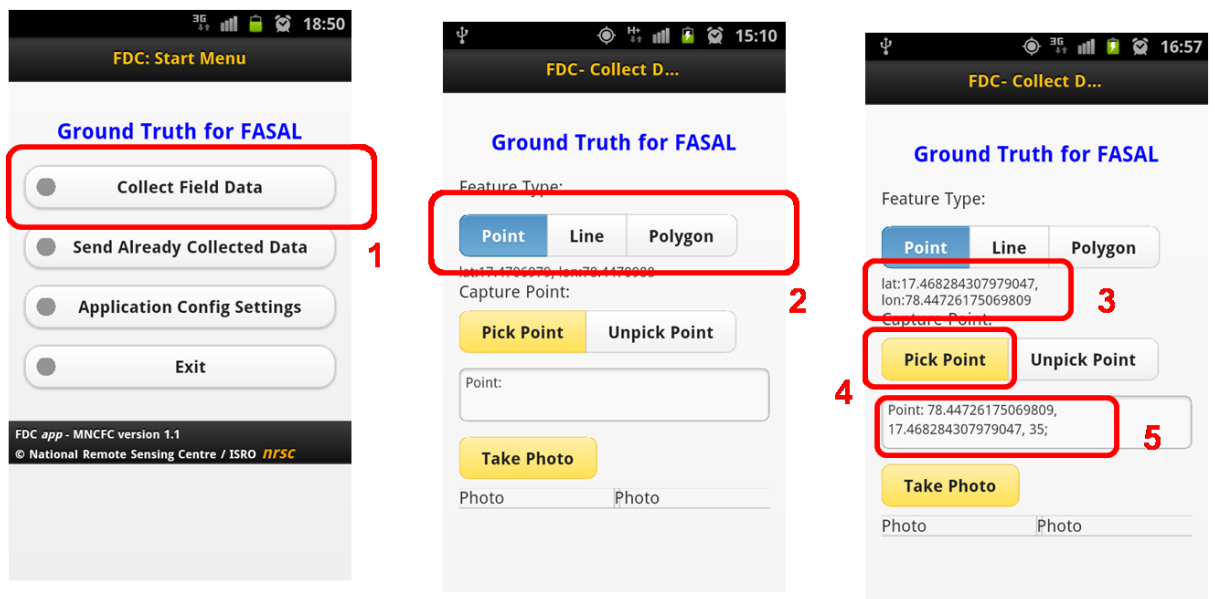
Photo1 & 2 are displayed

Type observation using keyboard

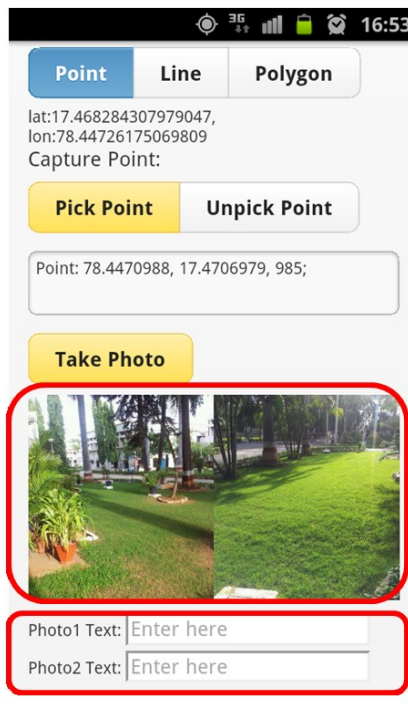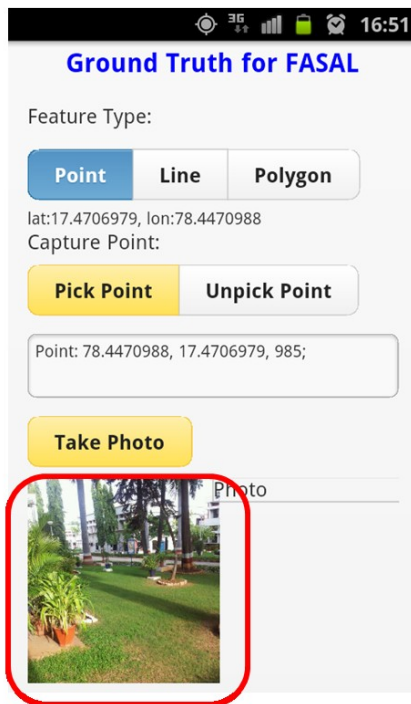Select observation from drop down menu

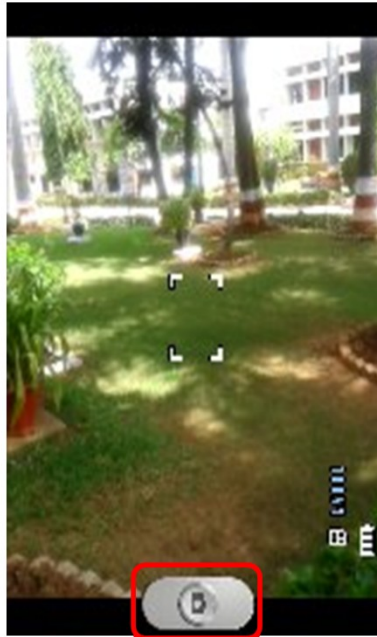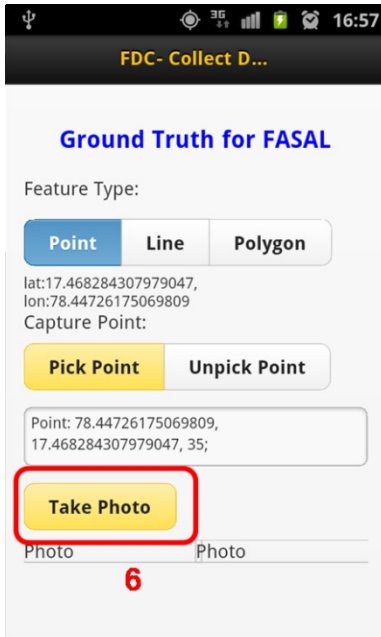Observation details

CropHealth-Condition Good

CropCover-on-Ground 0-20%

CropVariety [Enter here]
DateOfSowing,Exp.date-of-Harvesting
[Enter here]
OtherCrops-in-the-Field
[Enter here]
Soil-Condition Flooded

Any-Other-Remarks
[Enter here]

Reset   Home

Save   Send   Send Later

Reset the collected observation

Provision to go back to home page

Provision to send later, when internet connection not available.

Save the collected observation

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Provision to send data to central server

The following are screen shot steps to collect field data:

Ground Truth for FASAL

Feature Type: Point | Line | Polygon

lat:17.468284307979047, lon:78.44726175069809

Capture Point: Pick Point | Unpick Point

Point: 78.44726175069809, 17.468284307979047, 35;

Take Photo

6

7

8

9 Display Photo-1

Photo-1 & 2

Repeat part-1 steps to capture second photograph
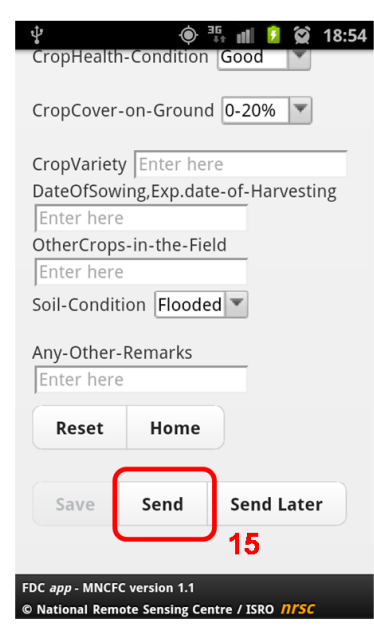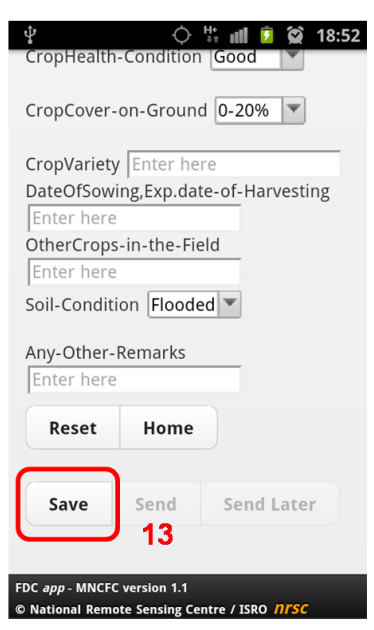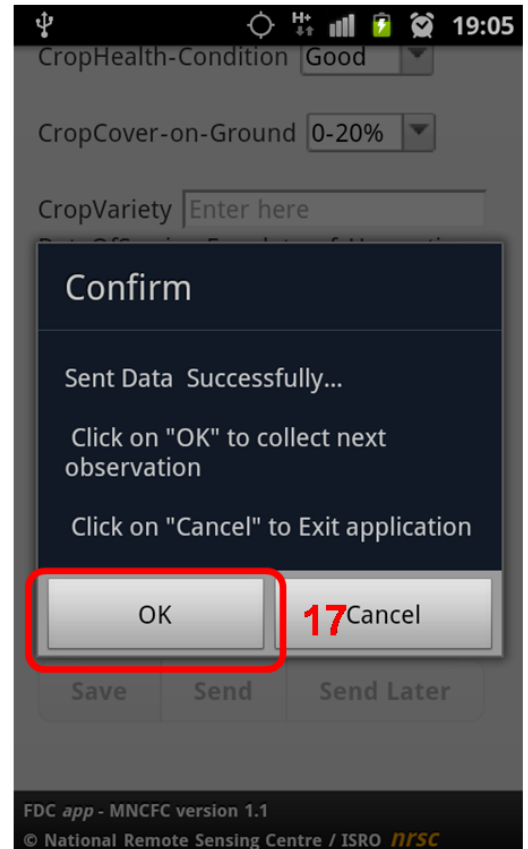
10

Provision to enter
11 text about captured photograph
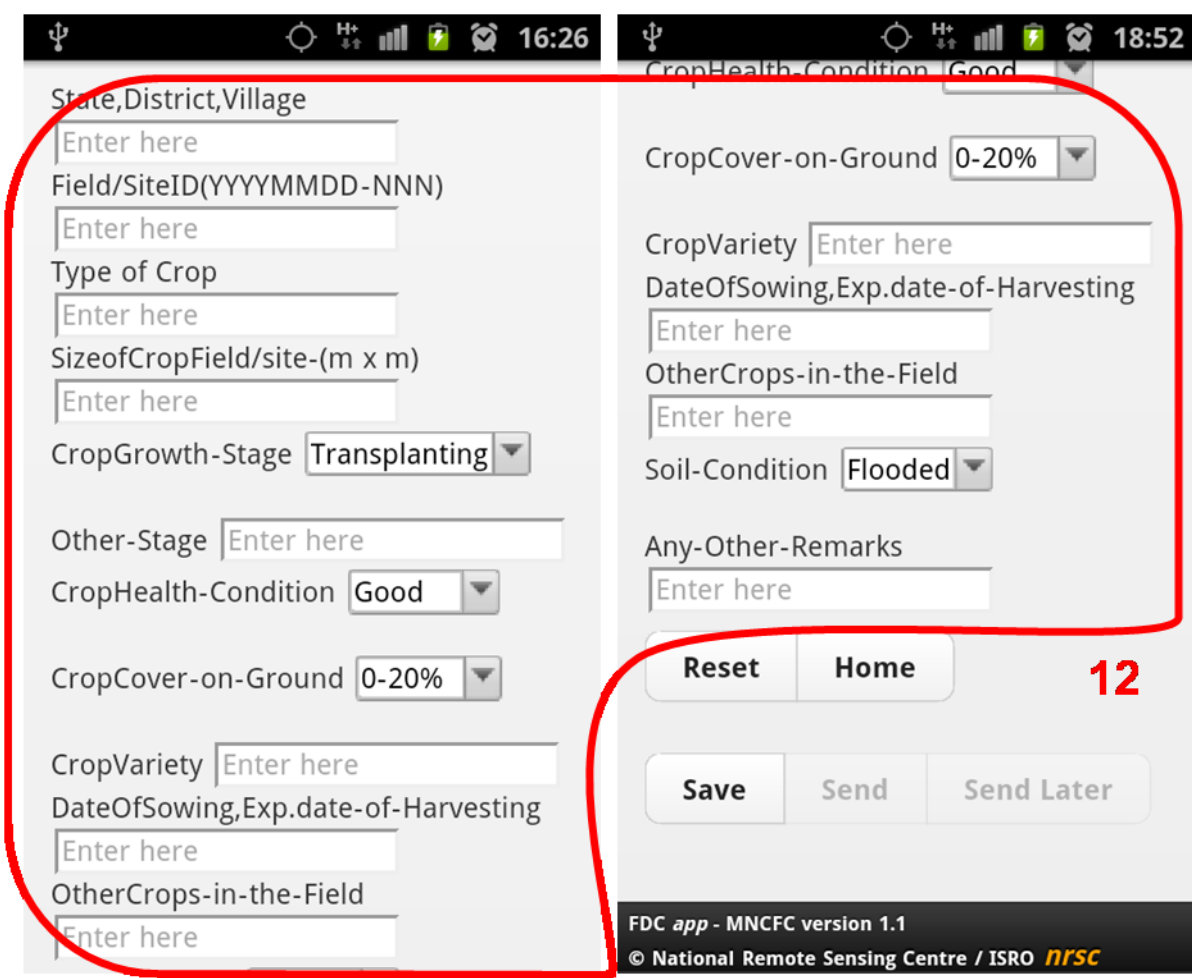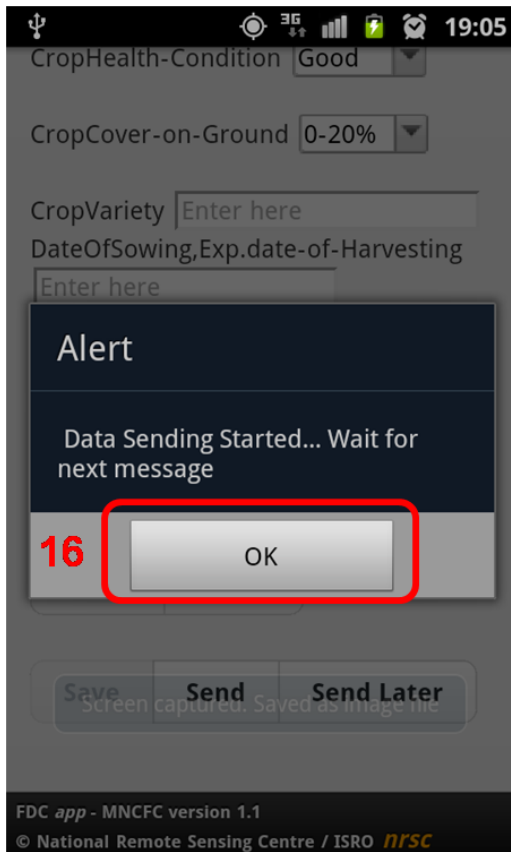
Note: Once Save is clicked, Save button disables for click and Send & Send Later buttons get enabled for click

Steps: 1. Click on "Collect Field Data >> 2. Select the Feature Type >> 3. Wait till Lat/Long appears >> 4. Pick Point >> 5. Picked Lat/Long. Info displayed in list box >> 6. Click on "Take Photo" >> 7. Click on Capture button >> 8. Click on "Save" to save capture photo >> 9. First Photo is displayed >> 10. Second photo is displayed >> 11. Enter the text related to captured photos >> 12. Enter the observation details >> 13. Click on "Save button" to save collected observations >> 14. Message box appears and click on "OK" >> 15. The Send button gets enabled to click and click on "Send" >> 16. Alert appears "Data sending Started" >> 17. After sending the collected data to central server message box appears, click on "OK" to collect next observation.

If user does not know about internet connectivity and click on send button, a message box appears as shown below; further user can opt for send later option.
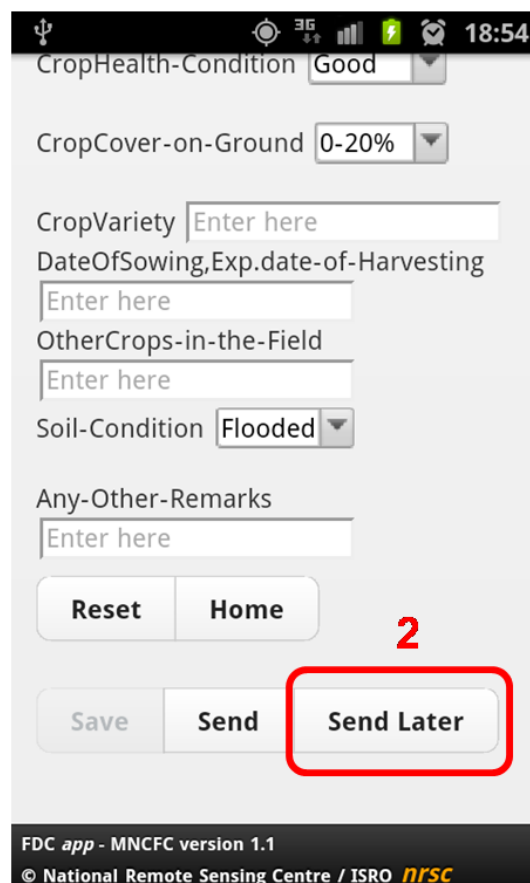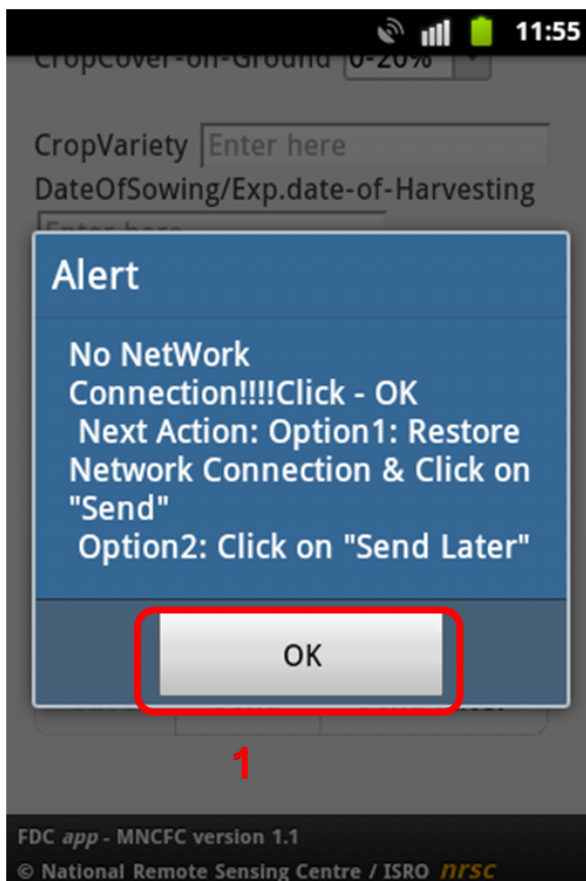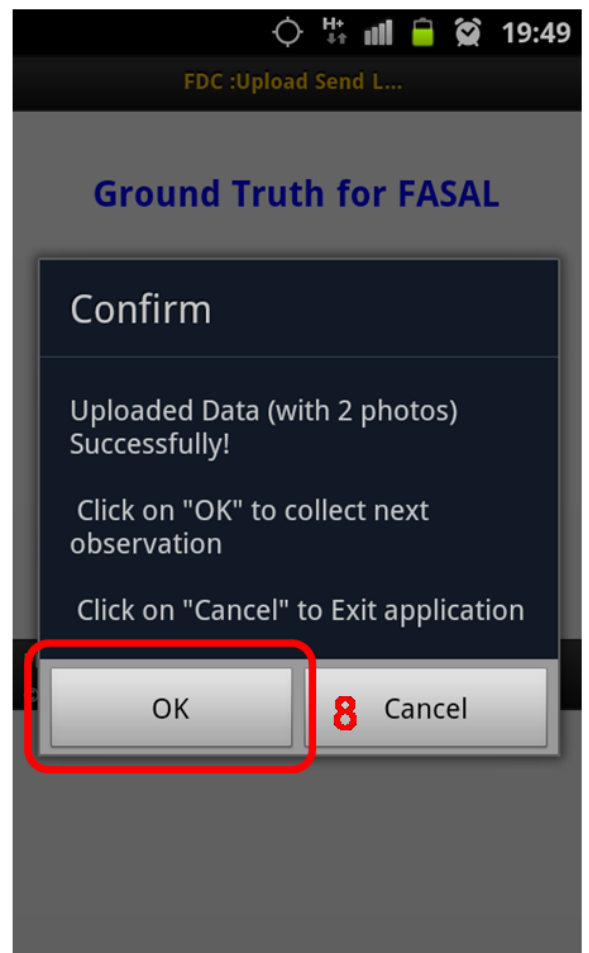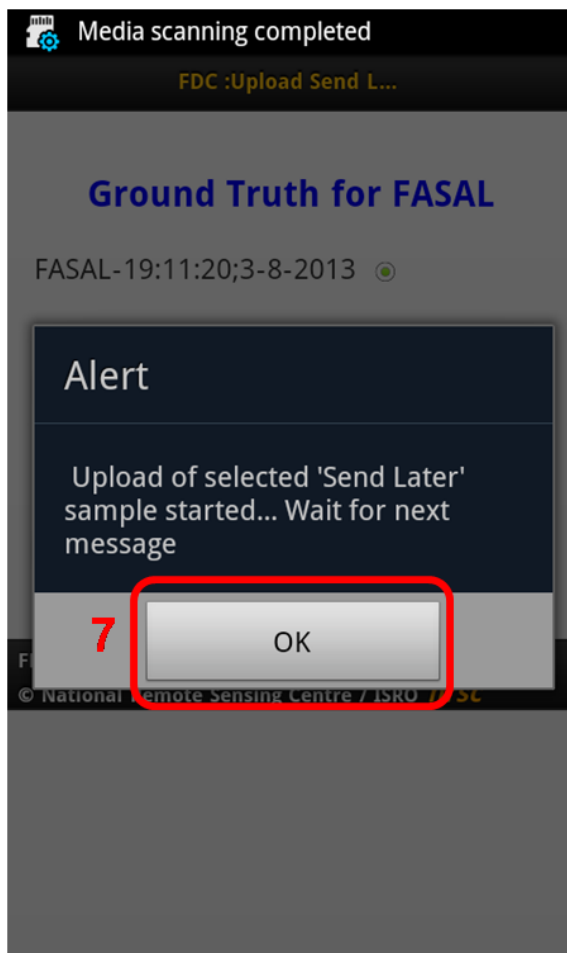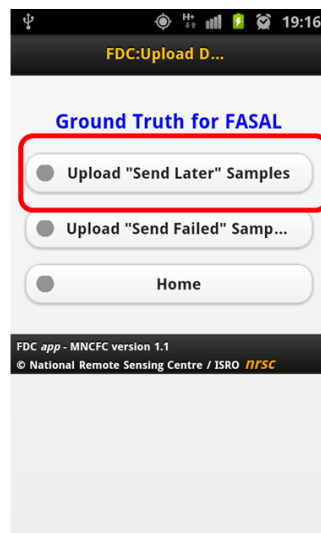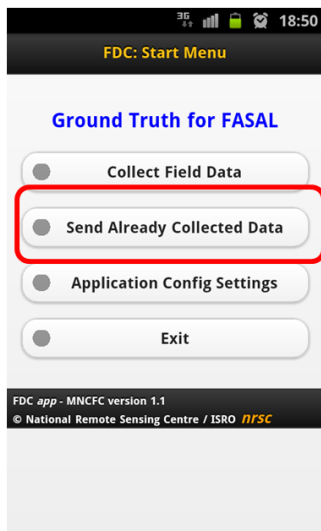
5 Upload send later option:

The following are steps to send data later (reason: no internet connectivity). After saving the data, Click on "Send Later" button and a message box appears "Data saved for sending later", Click on "OK".
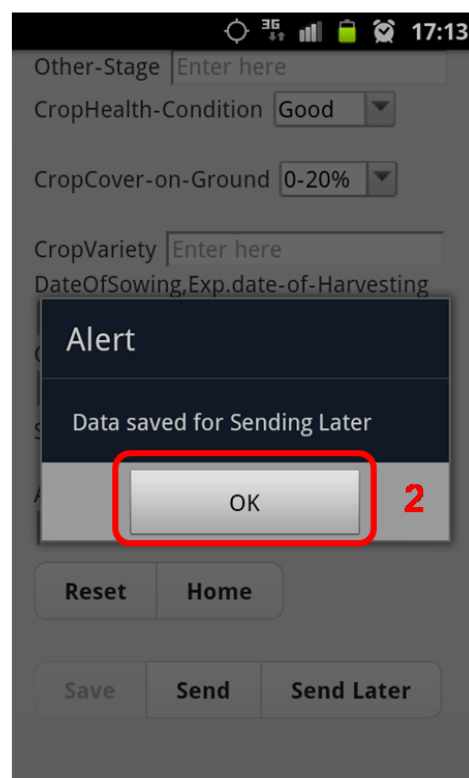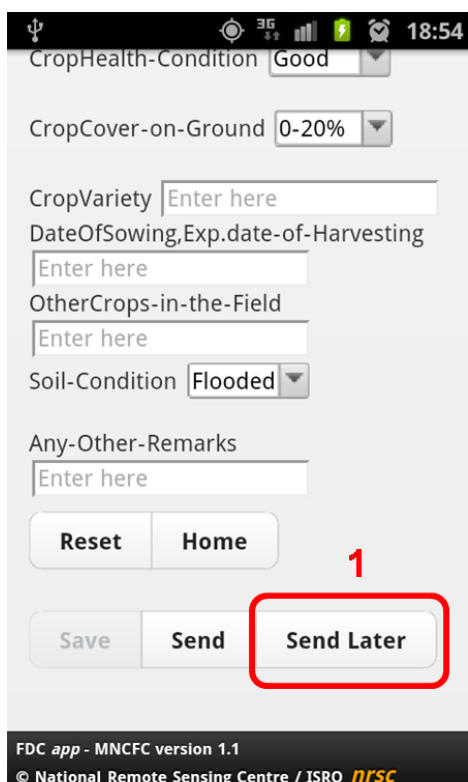
Once the internet connectivity is restored, user can follow the step 3 to 8

Step: 1. If user knows that there is no internet connectivity then Send Later option can be opted, Click on "Send Later >> 2. Message box appears "Data saved for sending later", Click on "OK" button. 3. Once the internet connectivity is restored click on "Send Already Collected Data" button in startup page >> 4. Click on "upload Send Later samples" >> 5. This page lists send later samples and user can select only one at a time to send collected data to central server, Click on radio button against the sample >> 6. Click on "Send" button. >> 7.

Message box appears with "upload started message", click on "OK" >> Once the data is uploaded into central server message box appears with "Uploaded data Successfully", click on "OK" to send next observation.
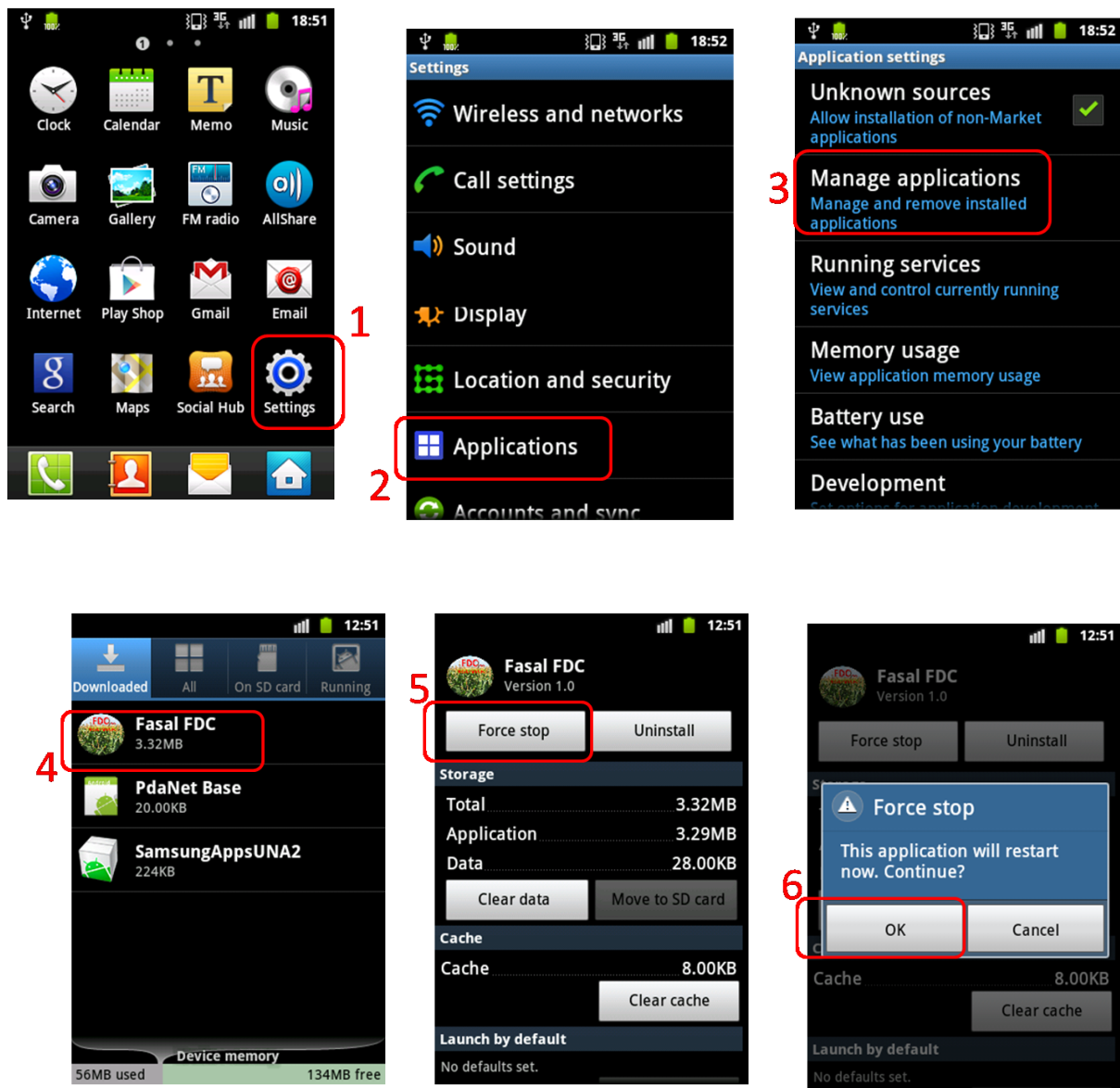
6 Upload Send Failed data option:

To operate unsent data follow the steps mentioned above in send later option expect in step-4 click on"Upload Send Failed Sample".
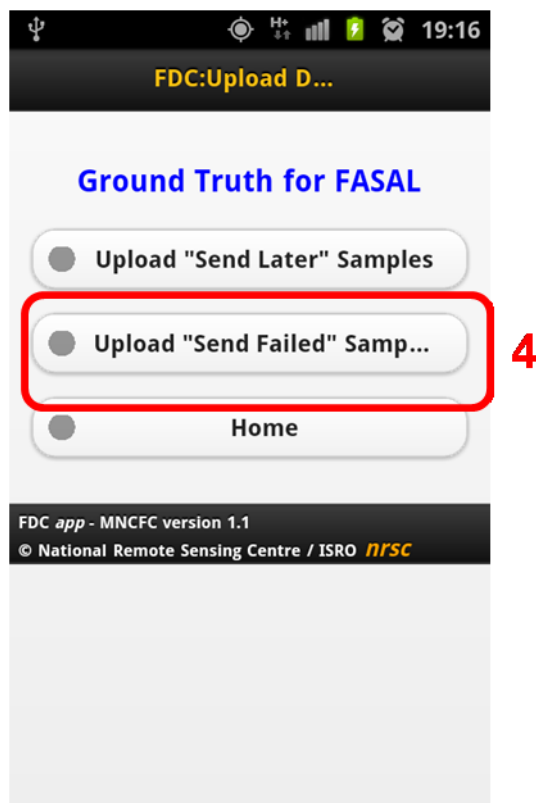
7   Restart the application:

The following are steps to restart the software:

Steps: 1. Click on "Setup" button >> 2. Click on "Applications" button >> 3. Click on "Manage Application" button >> 4. Select the application, Click on "Fasal FDC" >> 5. If the application is not properly close then click on "Force Stop">> 6. Click on "OK" button to restart the application.