**Ministry/ Organization name :** ​CDK Global  
**Problem Statement :** ​ Portal for Farmers to sell the produce at a better rate

​**Problem Code :** ​RA27

**Domain Bucket :** Agriculture and Rural Development

**Category :** Software Development

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College Name – Government Engineering College Bilaspur (Chhattisgarh)

**College Code:** ​007

**Solution:**

We are proposing an app-based solution, An app for the farmer connect to the buyer and the other various retailers. It will be a user-friendly app with Admin Panel for farmer and buyer working with SMS system.

Some salient features of the app are as follows:

***For the benefit of Farmer:***

●  A platform to display Farmer’s **products** and it’s **pricing** range with ***real-time*** update.

●  A complete e-commerce app with a ***payment*** gateway.

●  The e-commerce app will contain the all types of grains and vegetables needed by buyer.

●  An **analytical** section for measuring the **production** and **intake rat**e of crops and vegetables with **cost benefit analysis**which helps farmers with **real time market** report thereby providing them with ***better pricing*** information.

●  A news feed for farmers in both ***English*** and ***Hindi*** language, to keep them informed about anything related ***farming***. It will be extracted from “*Google*” news *API*.

●  A guide for growing ***healthy*** crops; consisting of all the crops.

●  Sell the best rates of ***products***, ***contact*** and ***connect*** nearby retailers.

●  An **inventory** section for the farmer to keep ***track of products***

●  Booking/order sections to get notified through app and SMS about the product to the farmer.

●  A contact section to get details of the nearest local university with contacts of experts. Experts will be notified through text message regarding farmer’s query.

**For the Buyer:**

●  A platform to compare and buy grains and vegetable products with better pricing range.

●  Direct buying method for buyer from nearest available farmer it can reduce the interfere of brokers.

●  An Package **tracking system** section for the buyer to keep ***track of products*** and for better quality.

●  Easy return goods and product with decided terms and condition.

**Technology Stack:**

●  Android application using JAVA and XML

●  Android Studio - For android application

●  Machine learning - Linear Regression to predict the weather conditions

●  Python Django - For Server

●  Accuweather /ClimaCell / Yahoo Weather APIs for getting weather details

●  Ajax: Asynchronous Java Script and XML. XML: Extension Markup Language.

●  Web 2.0: RSS Feed 2.0.

●  RAD 7.0: Development tool.

● For designing HTML,CSS,Java Script.

●  Localization(first stage of development): 2 Languages - Hindi and English

**Software Interface**:

1. Front End Client
2. Web Server
3. Data Base Server
4. Back End

**Hardware Interface:**

* + 1. Client Side:
    2. Server Side

**Use Cases:**

●  From searching for a farmer till buying the grains and vegetables, the entire process will be on a digital platform.

●  The rates will be competitive, so the Buyers will have more options.

●  Also, this will ensure that the buyers/ will not be cheated.

●  Efficient use of Government Schemes.

**Show Stopper:**

●  Weather Predictions and other auto-generated suggestions.

●  Mobile network issue for server and communication

●  Common languages like Hindi and English used (Local languages of farmers may also be included).

●  All information regarding Government Schemes.