Farming and health solution system

'Farmers are one of the basic building blocks of the Nation and its Economic wealth' – one on the know and approved fact by each and everyone of us. Despite this the farmers remain one the most ignored and less developed section of the population of the country. One of the main reasons for such a state of farmers is lack of knowledge and awareness about solutions to their life-threatening problem. The solutions to the problems are known but however are not successfully conveyed at the grass root level to the farmers.

With the above-mentioned view in mind, our project attempts to address a part of the problem. Our application would help establish a channel between farmers, agricultural experts, doctors, financial organizations, Government. The applications will provide specific solution to each farmer.

It will be achieved with the help of sensors installed in farmers field which will provide information such as soil nutrients and water content. With the help of this knowledge we will set up a soil profile score or 'Soil score' so as to access the soil quality of the field in a local area. The Soil score will be scale ranging from 0.0 to 10.0. The scoring system will also be applied to other aspects related to the farmers such as Crop yield, Financial status, Health Status. Each of the scale will range from 0.0 to 10.0. The scoring system will then be used by various specialists such as Agricultural experts, Doctors, Banks and then communicate to individual farmer their specialist solution. Weather alerts will also be provided to the farmers which would them take precautionary measures.

The application will thus create a farmer's profile which will consist of: soil data, crop yield data, finance (income, expenditure data), Health data (Height, weight, Age, vital signs)

The following use cases will be implemented in the application:

1. User/Farmer: The farmer will login individually or with local help for entering data such as Personal information, Income/Expenditure information, Health report, Crops planted history. This along with his field's sensor data will create farmer profile. Also, they can communicate their various concerns on farming, finance, and health to respective experts.
2. Agricultural expert: They will have access to the soil profile data of the famers and calculate soil profile score. Based on the data they will communicate to the famer advice on the type of crop to be planted, irrigation duration, fertilizer/pesticide to be used.
3. Doctor: Local doctor will assess the health information of the farmer, address the health concerns and accordingly calculate the Health Score.
4. Bank/Financial institute: Will have access to the Soil profile score, Health score, crop yield data of the farmers which they will use to calculate the finance score. Based on finance score the institute can then decide loan amounts, interest rates etc.
5. Government officials: They will take an input from all Agricultural experts from all areas and analyses them. According to analysis they will suggest how much funding will be given to particular area. They will also find out the life term policy for them. Reports will be given to the ministers which then grant a certain subsidy for the farms from government Financial funds.