Farmer assistant :

Issue to be addressed:

Agricultural and demographic issues. There are many exciting things happening on the moment on the agricultural side. Our country India is a place where weather is an unpredictable thing. Some months it is summer season and other times it might be rainy season. Seasons change in unpredictable times which is not a good thing for the farmers. Due to the growing global warming scenario in our world ,the condition has even worsened and adding to it are the pests, crop diseases and insects. We are intending to devise a solution that helps predict the disease or pest attack for different commodities in different agro-climatic zones and also suggesting the type of climate that might prevail in that zone. Our solution might be very handy for the farmers as it informs them about the weather conditions, the pest attack and the Crop diseases that might affect their farming and hence they can take proper precautions while they plan for their crops. Since there is a huge demand for rising of food due to rise in population any small damage to crop leads to huge monetary losses.

Objective:

Out objective is to develop the idea which can help and empower the sector where there are already Biotech startups inventing new superpower crops hardware companies fighting against the draught startups working on data based solutions and many more . Our idea will be as a helping hand for the prevailing problems.

Techstack:

The idea of Google Assistant has revolutionized the world in many ways. Google assistant is an AI powered virtual assistant developed by Google that is primary available on mobile and many handy devices. Our solution is also similar to the Google assistant which will assist the farmers in making the right choices. Our Assistant will be called as the farmer assistant and will also revolve around the idea of AI and machine learning. We can device an algorithm that precisely predicts the chances of occurrence of any pest or disease infections and alert the farmer there by preventing the Collateral Damage. All the farmer has to do is just upload the crop images that he is going to plant in his area into the cloud. The back end algorithm does complete analysis and sends a report to the farmer. Machine learning is used for predicting the occurrence of pest or disease through decision making tree. Artificial neural networks is used for detecting the presence of pests or diseases ,density of them ,type and predict damage of crop. It even help the farmers by providing preventive measures and advise that will help them tackle the situation. It will also tell them the type of pesticides and fertilizers that need to be sprayed in order to prevent upcoming attacks and destroy presents hosts in the crop. We also intend to add to the solution the forecasting of the weather ,climate conditions of the place and suggest means of improving the crop conditions and production to make it advantageous for the farmers to use our farm assistant. We would be installing temperature sensors ,humidity sensors and sensors that predict the soil condition in the place where farming is going to be done. The readings from these sensors will be fed to our algorithm and the algorithm will run simulation test along with the crop images that a farmer intends to plant in his area. After running the test our farmer assistant will provide with proper advices to the farmer about the crops whether it is suited for that place ,amount of water, best care methods for the crops and the weather conditions.

Advantages:

1) our farmer assistant will be multitasking and provides the farmer with best options and precise information

2) the family not invest any huge amount of money in this as all I need to do is provide the farmer assistant with the images of the crop and setting details that the former assistant will require for running the simulation tests

3) it is a very handy tool and helps huge masses of farmers around our country and the world in a very small budget.