**Mobile Computing**

**Case Study Topic**

**Cyopci : Farmer's Helper IOS Application**

**Team Members**

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**Overview**

Cropsi is a comprehensive solution for the needs of farmers in Bangladesh. Empowerment aims to empower farmers by educating them and helping them make informed decisions that increase their income. Cropsi is a comprehensive solution for the needs of farmers in Bangladesh.

Empowerment pursuits empower farmers by instructing them and helping them make informed choices that increase their income.

* **Project Goal**

Cropsi trimming the knowledge gap in personalized content by providing access to information.

* A range of agricultural services at each stage of agriculture can quickly monitor the market through advisory solutions to producer prices by agricultural experts on short harvest issues.
* Quality agricultural inputs at your fingertips and deliver them to your door, selling directly to producers at least a safe and proven buyer/seller.
* **Problem Statement**
* Bangladesh economy draws its main strength from agriculture sector. The sector contributes 12.92% to GDP (at current prices) and employs 53.4% of the labour force.
* A long supply chain between farmer and consumer increases the price of produce significantly which also affects the end consumer.
* Crop agriculture in Bangladesh is constrained every year through demanding situations, such as

1. loss of arable land,
2. weather changes and
3. inadequate funding in research.

* **Problem Solution**
* After much brainstorming, Developer found that the long supply chain of a mobile application is obligatory because consumers and farmers are completely different users with different needs.
* So, in order to solve the bigger problem of farming crises and connect them with consumers, I decided to create a solution in the Cropsi stages by building a favorable ecosystem for the farming community.
* **Business Goal**
* Our business goal is to create a seamless application for Bangladesh farmers, where they can sell their crops more easily while eliminating the traditional supply chain path. This ultimately saves users time and money.
* To make the farming process and subsequent activities easy and stress-free for every farmer.
* Giving solutions for crop-related problems and providing house-to-house Agri products can reduce farm losses.
* Increase farmers' incomes by providing agricultural education and knowledge of various advantageous agricultural opportunities.
* **General Tasks**
* Simple registration using phone number
* Get solutions from experts
* Get educated from expert advice.
* Product sell through online Instant weather update
* Order farming Supplies different crops and categories
* Updated market price for the crops
* Different payment terms
* Join chat room and get instant solutions learning
* **Success Factors**
* Easy to use and user satisfaction while using the app.
* Quick and responsive app with slick loading speeds.
* Security of info entered by the user.
* Accurate and relevant information displayed.
* Consistency across several platforms.
* Quick user support and swift issue resolutions.
* **Target audience**
* The farmer / cultivator who grows the crop.
* The buyer / middleman who purchases the crops, either to use or sell further.
* The Agricultural worker/labor contractor who assists the farmer in the field with tasks like weeding, irrigation and harvesting.
* **Technology Constraints**
* Requires internet and smartphone.
* Small towns may have network problems.
* Need to access location.
* Payment details are required for the online transaction.
* **Cross Channels**

The users can access applications through IOS platforms with a responsive design to suit all form factors.

* **Qualitative Research**

A good study, I interviewed about 10 farmers of different ages. Research helps us understand our users' behaviors, needs, preferences and frustrations.

* **Preferences and behaviors of users**
* Do you try different and new cropping techniques?
* Do you check any news articles about farming?
* What do you do if something happens to your crops?
* Will you sell your product online at a better price?
* Did you check the weather updates of the app for farming?
* Do you consult an expert?
* Did the middlemen buy everything you grow?
* Have you ever used a farming related app?
* Which farming related app is used?
* How do you sell your products and where?
* **Background and preferences**
* What is your name, age and education?
* Do you own any farms?
* Which crop do you take?
* How much profit do you make annually?
* Where do you sell your products?
* **Problems faced by users**
* What are the problems you face in your daily life?
* What is the hardest part of farming for you?
* How do you overcome those challenges?
* What are you considering as you plan to sell products online?
* **Affinity Mapping**

After gathering a lot of information from user interviews, company analyzed and synthesized the observations to identify the key issue that has been identified so far.

* **User Background**
* Older farmers do not train. They are more comfortable in their native language than in English
* Sell there produce to nearby APMC with help of broker.
* Farmers help them with smartphones and update news, schedules, online orders and more.
* They have been farming for generation, but they still need to try new crops. It is difficult for them due to a lack of knowledge.
* **Challenges & Pains**
* Constantly changing and unpredictable Climate make losses.
* Not having knowledge and guidance about different crops.
* Farmers face shortage of labour during peak time and they charge lot.
* If something new diseases came on crop then it is difficult to connect consultant.
* Not able to generate good profit from farming. Sometime have sell at loss
* **User Interest**
* Watching videos on YouTube and spend time on WhatsApp.
* User interested in how to make more profit.
* Subsidies and schemes from government or Private Social Gatherings
* Minimizing farming expenses and saving money for next crop.
* **User Behavior**
* In case of diseases asking to Agri shop to Self-Experiments/ Call Agri Officer if diseases unknown.
* Ready to sell the produce online, if the price is better than the usual, they are getting.
* Farmer which are operating in low budget prefer to buy locally on credit.
* Spend time on YouTube to get farming and schemes relate knowledge.
* **Empathy Mapping for Farmers**
* **Think & Feel**
* Weather should not destroy the crops. How can we get more income profit?
* What's the perfect time to cultivate specific crops? How can I sell my produce?
* Need to buy seeds and fertilizers. How can I sell my produce?
* How can I sell my produce at a price? What is the current price of my produce?
* **Hear**
* I will not let my son be a farmer. Which can give you profit.
* Farming doesn't give profits. Try new crops which can give you profit.
* Workers are not available. My crop has diseases; what should I do?
* My crop has diseases; what should I do? What is the current price of my produce?
* **See**
* Soil Quality.
* Crop health.
* Weather news and updates.
* Market visit of Agri products in a shop.
* **Say & Do**
* Organic products are very costly; who will sell from us?
* Sell seeds, fertilizers and required materials from market.
* Price check of produce in market view.
* Get weather updates
* **Pain**
* High level of financial insecurity related to farming.
* Lack of Agri knowledge.
* Fear and frustration of selling the produces at low cost.
* Losses because of disease on crop.
* **Gain**
* Agri Knowledge about new farming produces and equipment.
* Expert guide to resolving crop issues.
* Increase in income and profit.
* Expert guide to resolving crop issues.
* **How Might We**

How might we? Questions are the best way to open up brainstorm and other ideations sessions where you explore ideas that can help you solve your design challenge.

* **How do we collect data on farmers' sales?**
* Introduce buying and selling opportunities for farmers through the app.
* Customize posts and videos about Agri's knowledge of crops, new useful farming
* Announce weather updates, harvest prices, news articles, and community massages
* Do your technology, market price, and more?
* Will you sell your product online at a better price?
* **How can we simplify and speed up user logins?**
* Teach them to sell packaged foods and connect them directly to consumers.
* Support reliable contract farms that can bring good profits to farmers.
* Sign in with your mobile number and OTP detection
* **How can we evaluate farmers faster and more efficiently**
* Call the video agro expert and he will give you a good solution.
* Excellent customer support & telephone support.
* Aware of agriculture apps and online platform.
* Maximize the efficiency of his livelihood.