

Intra-Department Tech Hackathon 2025

International Islamic University Chittagong

Project AgroConnect: The Kumira-GEC Challenge

The Story

In a small village near Kumira, just a short distance from the IIUC campus, lives Abdul Karim. He's a hardworking farmer, and his vegetables, fresh tomatoes, crisp cucumbers, and leafy greens are the best in the area. Every morning, Karim wakes before Fajr to tend to his crops. He then packs his produce and heads to the local market in Sitakunda.

But his livelihood is fragile.

His earnings are inconsistent. Sometimes, middlemen exploit him, paying far less than his produce is worth. Sometimes, his vegetables spoil on the slow, bumpy ride due to transport delays. Other times, buyers simply cancel, claiming his "fresh stock didn't arrive" on time.

Meanwhile, 25 kilometers away in the heart of Chattogram city, restaurant owners like Shahed Alam face their own struggle. Shahed, who runs a popular small cafe near GEC Circle, desperately wants a steady source of high-quality, truly local produce. Instead, he's forced to pay high prices to large, impersonal distributors, all while knowing farmers like Karim are just up the road.

The gap between them is small in distance but massive in opportunity.

Your Mission

Your mission is to **design and build a technology-driven solution** that directly connects Abdul Karim and other local farmers with buyers like Shahed Alam. Your goal is to create a stable, efficient, and transparent food supply chain for Chattogram, built on trust and community.

Phase 1 (Virtual Round): Building the Bridge

Your first task is to build the foundational platform that allows Karim and Shahed to find and trust each other.

The Farmer's Challenge (Abdul Karim):

Karim needs a way to showcase his fresh produce to buyers across the city. He's proud of his work and wants to set his own fair prices. He needs to manage what he has available each day (his tomatoes, cucumbers, etc.), and, most importantly, he needs to know immediately and reliably when someone like Shahed wants to buy from him.

How can you empower Karim to run his own digital stall, giving him control over his inventory and direct notification of his sales?

The Buyer's Challenge (Shahed Alam):

Shahed is busy running his cafe. He's tired of unreliable distributors and wants to browse produce directly from local farms. He needs a way to find specific items, trust their quality and origin, and place an order with confidence. He also needs to track his orders and keep proper records for his cafe's accounting.

How will you create a trustworthy, transparent, and user-friendly marketplace where Shahed can find, order, and track produce and maintain his business records?

The Ecosystem Challenge (Oversight & Trust):

This new marketplace can't be a free-for-all; it must be reliable. It needs oversight to ensure that only legitimate farmers and serious buyers are part of the community. Someone needs to monitor the flow of orders and be able to step in if there's a problem. In case of important events like a market closure in Sitakunda or a new opportunity for buyers, this central "control tower" must be able to communicate effectively with the right people, whether it's all farmers, just one buyer, or everyone on the platform.

How will you build the 'control tower' for this ecosystem to ensure safety, manage users, oversee transactions, and serve as a vital communication hub?