

## **Introduction**

BAU Recycle is a community-driven platform designed exclusively for the students of Bangladesh Agricultural University (BAU). It enables students to buy, sell, or exchange used items (such as books, electronics, furniture, etc.) within the campus, promoting a culture of sustainability and reuse.

## **Purpose of the Project**

The core purpose of BAU Recycle is to:

- Facilitate a trusted marketplace within the BAU student community.
- Reduce waste and unnecessary consumption by promoting recycling and reusing items.
- Help students save money by purchasing used items at affordable prices.
- Ensure safety and security by restricting access to only verified BAU students.

## **Key Features**

- Student-only access: Signup/login restricted to BAU student email addresses.
- Post Ads: Students can post items they want to sell or give away.
- Search & Filter: Easily search by item name, category, or condition.
- In-app Chat: Real-time messaging between buyers and sellers.
- Image Upload: Add photos to ads for better visibility.
- Location Tag: Mention hall or department for easier pickup/drop-off.

## **Technology Used**

Frontend:

- Flutter (Dart) - for building a responsive and modern cross-platform UI.

Backend & Services:

- Firebase Authentication - to restrict access to verified BAU students.
- Firebase Firestore - real-time database for storing ads, messages, user profiles.
- Firebase Storage - for uploading and retrieving images of listed items.
- Firebase Cloud Messaging - for push notifications on messages or item updates.