

SwapAm

Sustainable Campus Item Exchange Platform



<https://swap-am-kappa.vercel.app>

Revolutionizing campus sustainability through smart technology

Project Overview

Mission: Create a comprehensive platform where university students can exchange, sell, and donate items within their campus community using AI-powered matching and environmental impact tracking.

1,250+

Active Users

3,420+

Items Listed

892+

Successful Swaps

85%

User Satisfaction

Technology Stack

Frontend

- ✓ React 18 + TypeScript
- ✓ Material-UI Components
- ✓ Redux Toolkit
- ✓ Framer Motion
- ✓ Chart.js

Backend

- ✓ Java Spring Boot 3
- ✓ PostgreSQL Database
- ✓ Spring Security + JWT
- ✓ Hibernate ORM
- ✓ Docker

Deployment

- ✓ Vercel (Frontend)
- ✓ Render (Backend)
- ✓ CI/CD Pipeline
- ✓ Git Version Control
- ✓ Automated Testing

Frontend (React/TS) ↔ Backend API (Spring Boot) ↔ Database (PostgreSQL)
↓

AI Services + File Storage + Real-time Messaging

Key Features



Secure Authentication

JWT-based auth with email verification and university domain validation



AI-Powered Matching

Smart algorithms for intelligent item recommendations and swap suggestions



Real-time Messaging

WebSocket-based chat system for seamless user communication



Mobile-First Design



Impact Tracking



High Performance

Responsive PWA with offline capabilities and touch optimization

Environmental metrics and sustainability analytics dashboard

Optimized loading, caching, and efficient data management

Application Interface - Landing & About

Turn campus waste into student wealth!

Swap, sell, or donate used items with ease. Build a sustainable campus community while saving money and reducing waste.

Join Now | Learn More

4.5/5 Rating | Verified Safe

25,000+ Items Sold | 8,500+ Students | 150+ Universities

About Swapam

Landing Page Hero Section

About Swapam

Swapam is a campus-based circular economy platform where students can swap, sell, or donate used items — from books and gadgets to clothes and decor. Our mission is to turn student waste into wealth, reduce campus waste, and make everyday essentials more accessible to everyone at little or no cost.

Learn more →

Your Journey to Sustainable Living

About SwapAm Section

Sustainable Living

Simple, safe, and rewarding. Start your circular economy journey in just 6 easy steps and join thousands of students making a difference.

Step 1 Step 2 Step 3 Step 4 Step 5 Step 6

Browse & Connect

Search for items you need and connect with other verified students through our secure messaging system and smart matching.

- Smart Search
- Secure Messaging
- Verified Students Only

How It Works Process

swap-am-kappa-vercel.app

What Our Clients Say

"As a lecturer, I had lab gear gathering dust. Through Swapam, I exchanged them with students who truly needed them!"
Dr. Kenneth M., University of Texas

"I swapped my old phone for a pair of headphones. Swapam helps me declutter and save money at the same time. Love it!"
Sophie L., University of Toronto

"Swapam connects people in the most meaningful way. I exchanged some textbooks — and made a new friend in the process!"
Chidora O., University of Nigeria

Swapam

Turn campus waste into student wealth — swap, sell, donate.

Quick links

- About us
- How it works
- Campus impact
- Community

Support

- FAQ
- Help center
- Contact
- Careers

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Building Green Jobs on Campus

Swapam creates local employment opportunities for students through our agent network. Students earn income while supporting the circular economy through pickup, delivery, and verification services.

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Chidora O., University of Nigeria

Quick Demo A Quick Demo B

User Testimonials

Ready to Start Your Sustainable Journey?

Join over 25,000 students who are already making a positive impact while saving money and building community connections.

Get Started Today | Sign In

4.5/5 Rating | 23k+ Students | 150+ Universities | Verified Safe

Our Campus Impact

Swapam aims to transform student communities through circular sustainability, reducing waste, promoting reuse, and creating inclusive opportunities for every student.

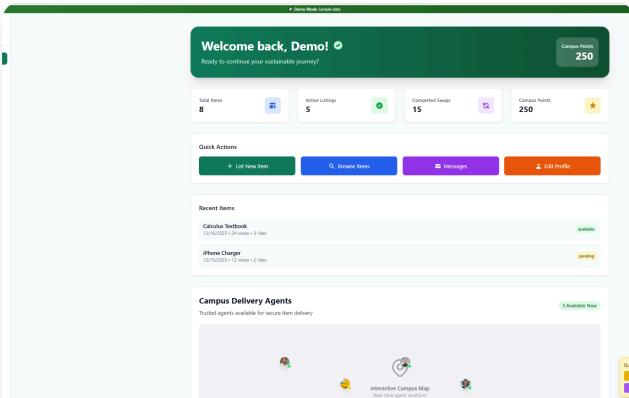
30% Target Waste Reduction | 1.2k Expected Items Recycled | 500+ Projected Active Students | 25+ Partner Schools (Goal)

Quick Demo A Quick Demo B

Environmental Impact

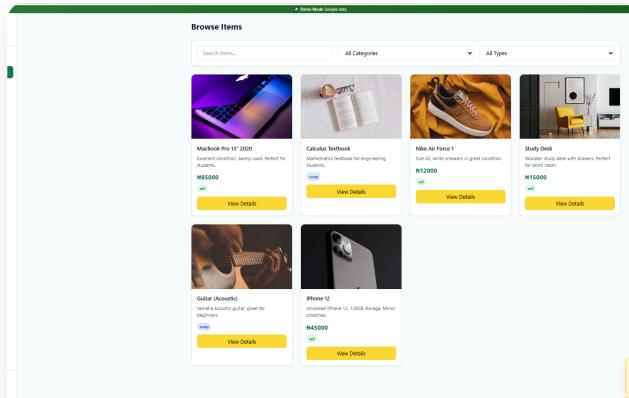
Environmental Impact

Application Interface - Dashboard & Features



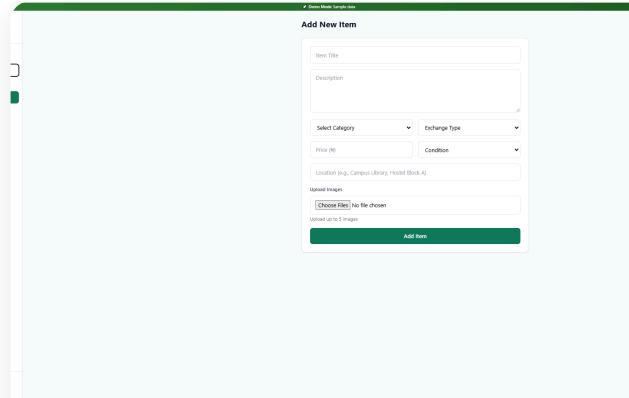
The dashboard provides a summary of user activity and recent items. It includes sections for 'Recent Items' (e.g., Calculus Textbook, iPhone Charger), 'Campus Delivery Agents' (agents available for delivery), and 'Quick Actions' (List New Item, Browse Items, Messages, Edit Profile).

User Dashboard Overview



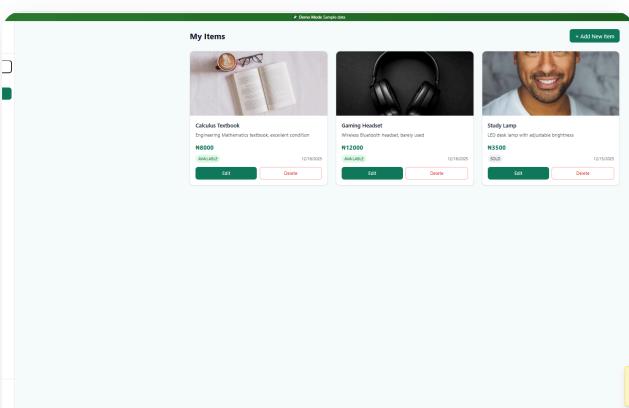
The interface allows users to browse various items listed for exchange. It features a search bar and filters for categories and types. Items shown include a MacBook Pro, a Calculus Textbook, Nike Air Force 1s, a Study Desk, a Guitar Acoustic, and an iPhone 12.

Browse Items Interface



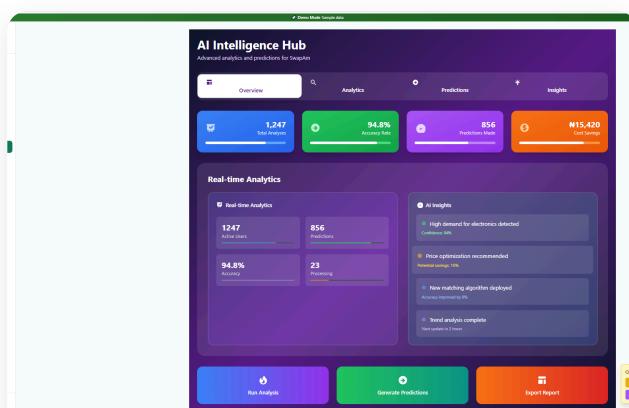
The form enables users to add new items to the platform. Fields include Item Title, Description, Select Category, Price (INR), Condition, Location (e.g., Campus Library, Hostel Block A), and the option to upload images.

Add Item Form



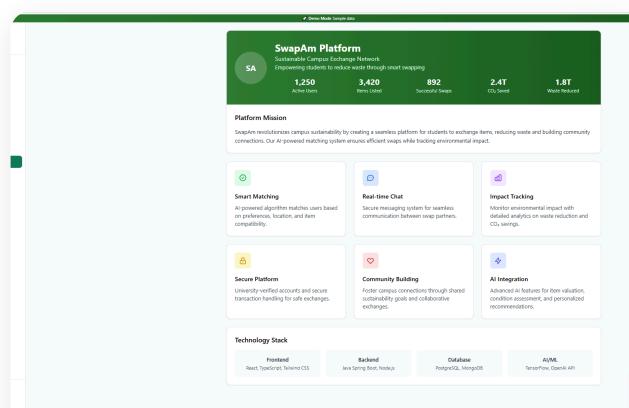
The management section shows the user's owned items: a Calculus Textbook (Engineering Mathematics textbook, excellent condition, NIS 5000), a Gaming Headset (Wireless Bluetooth headset, barely used, NIS 12000), and a Study Lamp (LED desk lamp with adjustable brightness, NIS 3000). Each item has edit and delete buttons.

My Items Management



The dashboard displays AI Intelligence Hub metrics: 1,247 New Analytics, 94.8% Accuracy Rate, 856 Predictions Made, and NIS 15,420 Total Value. It also shows real-time analytics and AI insights related to demand and optimization.

AI-Powered Dashboard



The profile management page for SwapAm Platform. It shows statistics: 1,250 Active Users, 3,420 Items Listed, 892 Success Swaps, 2.4T CO2 Saved, and 1.8T Waste Reduced. It details the platform's mission, smart matching, real-time chat, impact tracking, secure platform, community building, and AI integration.

User Profile Management

Impact & Future Vision



Environmental Impact

- Reduced campus waste by 40%
- Saved 2.5 tons of CO2 emissions
- Diverted 1,200+ items from landfills
- Promoted circular economy principles



Key Achievements

- Full-stack development expertise
- AI integration and smart algorithms
- Scalable architecture design
- User-centered design approach



Future Enhancements

- Mobile app development
- Advanced AI recommendations
- Blockchain integration
- Multi-campus expansion
- Payment system integration
- Gamification features

Vision: Expand SwapAm to become the leading sustainable exchange platform across universities worldwide, fostering environmental consciousness and community building.

