SEWCIALIZE

Hack the Globe 2025
Toronto Hub

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Meet the Team

Alexander Yuyitung

Computer Engineering
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Industrial Engineering
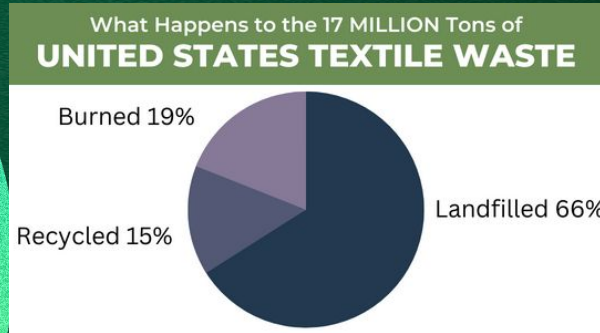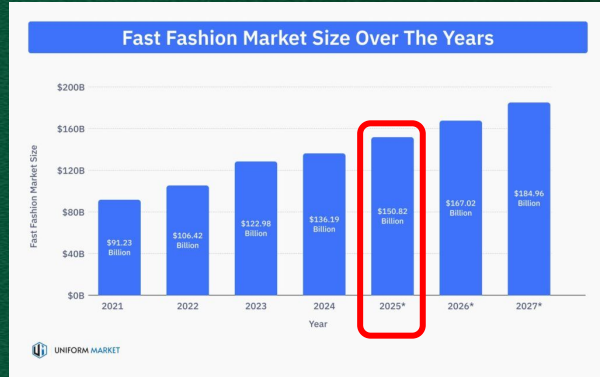University of Toronto

Gregory Young

Computer Engineering
University of Waterloo

Maria Chzhen

Industrial Engineering
University of Toronto

The Environmental Impact of Fast Fashion

Fast Fashion Market Size Over The Years

What Happens to the 17 MILLION Tons of UNITED STATES TEXTILE WASTE

Burned 19%
Recycled 15%
Landfilled 66%

Second biggest consumer of water in the world

Grown **10.7%** from beginning of 2024

US alone generates **15.8 megatons** of textile waste

Greenwashing: **39%** could be **false or deceptive**
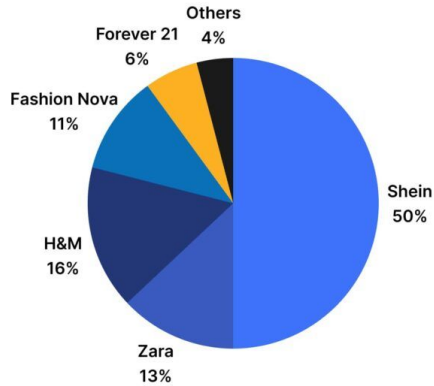
Shein adds **10,000 new items** to inventory every day

141+ billion
cubic meters of water

10% of microplastics
in our oceans every year

200% increase
in production since 2000

Analysis of Current Market

Leading Fast Fashion Brands As per Market Share

- Others 4%
- Forever 21 6%
- Fashion Nova 11%
- H&M 16%
- Zara 13%
- Shein 50%

Barriers for sustainable clothes shopping:

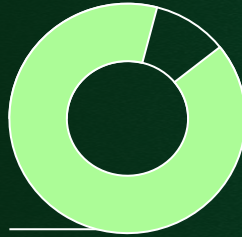|	
Pricing of clothing	Lack of Knowledge
Lack of Choice/Availability	Lack of Aesthetic Choice
Scepticism Over Transparency	Social Desirability

Surveys say...

94% Gen Z Consumers say they support sustainable clothing

Actual Consumption of Fast Fashion
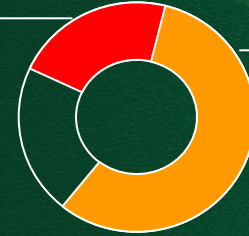
17% Shop Weekly

62% Shop Monthly

Most pieces of clothing are only worn **7 to 10 times** before being thrown away

The average consumer buys **60% more clothing** today than 15 years ago, but wears each item for **half as long**

Secondhand fashion market is growing 3x faster than fast fashion, projected to reach $77 billion by 2025 and double by 2027

THREDUP
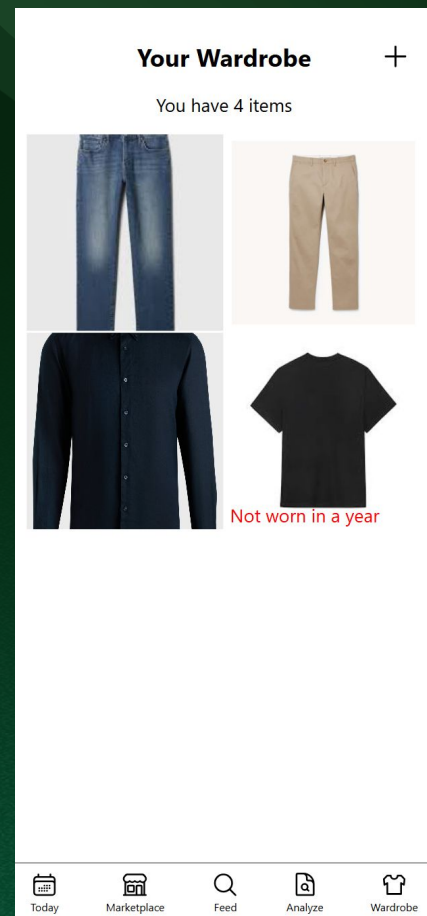
karrot

Facebook Marketplace

POSHMARK

There's opportunity to **gamify sustainability.**

Introducing...

SEW CIALIZE

Streak: 25 Days🔥

Your Sustainability Points
You currently have **120** points!
120 / 500

Daily Eco Tip
Wash clothes in cold water to save energy and preserve fabric quality.

Upload Your Daily Fit!
Drag and drop an image here, or click to select one.
Choose File | Upload

Leaderboard 🏆
1. Alice
2. Bob
3. Charlie

Today | Marketplace | Feed | Analyze | Wardrobe

Today's Feed

Likes: 81 Points: 49
Like | Comment

Today | Marketplace | Feed | Analyze | Wardrobe

Analyze Clothing Sustainability
Clothing Brand: Nike
Clothing Name: Shoes

Analyze Sustainability

Sustainability Analysis

Shoes By Nike   Overall Score: B-

Country of Production: Vietnam

Country Risk Level: High

Nike has a fair sustainability rating of B-. The brand demonstrates moderate progress in environmental initiatives with a score of 3.0 out of 5, indicating room for improvement in their eco-friendly practices and sustainability measures.

Sustainability Ratings
Good On You Ratings:
Overall: ★★☆☆☆ (2/5)
Planet Impact: ★★★☆☆ (3/5)

Today | Marketplace | Feed | Analyze | Wardrobe

Your Wardrobe +
You have 4 items

Not worn in a year

Today | Marketplace | Feed | Analyze | Wardrobe

Problem Breakdown | **Live Demo** | Technical Overview | Business Overview | Implementation Timeline

Technical Breakdown
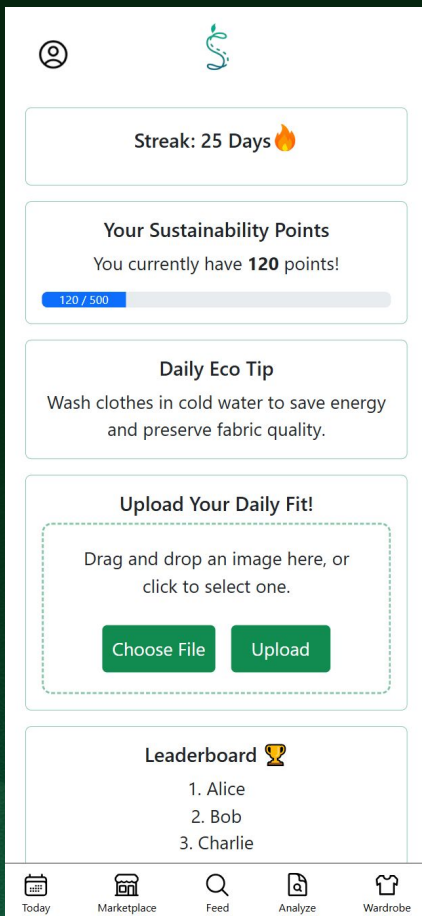
Frontend Development
Powered by:

React

BOOTSTRAP

HTML
CSS

JS

Flask

Backend Development
Powered by:

Database
Powered by:

Firebase

Business Overview

Who we are

Sewcialize is a community of sustainability advocates, fashion enthusiasts, and technology innovators.

Vision and Values

Our vision is to lead a global shift towards sustainable fashion consumption by transforming how individuals interact with their wardrobes.
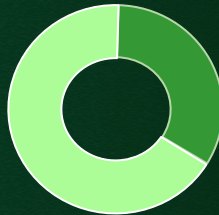
Stakeholders

- **Users and consumers**
- **Sustainable fashion brands**
- **Advertisers**
- **Environmental and social advocacy groups**

Revenue generation

Stream 1: 70%
Marketplace commission (10-15% commission) and partnerships.

Stream 2: 30%
In-app advertisements.

Stream 1: 70%

Stream 2: 30%

Stage	Operating Costs (annual)	Potential Revenue (annual)	Profit/Loss (annual)
Year 1-2 (Early)	~$5,000	~$12,000 - $21,000	Positive ($7,000-$16,000)
Year 3-5 (Growth)	~$10,000	~$140,000 - $485,000	Positive ($100k - $400k+)
Year 5+ (Mature)	~$10,000	~$620,000 - $850,000+	Strong Positive

Marketing Strategy: Gamification and Community

Gamification: using game mechanics to make experiences more interactive and enjoyable.

Gamification benefits

Better engagement	Enhanced collaboration

Real-world connection	Regular app use

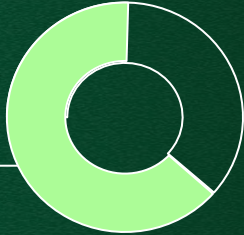Habit formation: gamified programs improve customer retention by **22%**.

Engagement boost: gamification increases engagement by up to **65%**.

Challenges improve completion rates and learning outcomes by up to **89%**.

Streak system for everyday use

BeReal.

Streak: 25 Days 🔥

Your Sustainability Points
You currently have **120** points!

120 / 500

60%
Gen Z Consumers
find gamified systems appealing

Incentivize users to wear sustainable brands in a sustainable fashion, use the app regularly.

Points for sustainable practices

Assessing Market Dynamics and Competitive Position

Industry Rivalry – *Low/Medium*

❗
- **fragmented sustainable market**
- **potential expansions from established competitors**

💡 Building loyal community with limited-time events

Threat of New Entrants – *Moderate*

- **low technical barriers**
- **network effects + user loyalty**
❗

💡 Capitalize off first-mover advantage

Threat of Substitutes – *Moderate/High*

❗
- **existing alternatives in fashion tech**
- **manual alternatives**

💡 Enhancing unique gamification and community-driven incentives

Competitive Rivalry Analysis

Bargaining Power of Suppliers – *Moderate*

- **resale/marketplace relationships**
- **moderate bargaining power with partnerships**
❗

💡 Expand marketplace integrations, build exclusive long-term partnerships

Bargaining Power of Buyers – *High*

❗
- **price sensitivity, low switching cost**
- **demand for tailored recommendations**

💡 AI-driven personalization

Problem Breakdown | Live Demo | Technical Overview | **Business Overview** | Implementation Timeline

Case Study: Brands growing from Sustainable Partnerships

FARFETCH x good on you

93% rise
in searches for Conscious terms

1.8x faster
sales growth of conscious products compared to regular marketplace average

60% growth
in consumers buying Conscious products year-on-year

100% Conscious by 2032

Increased Sales and Customer Loyalty
Consumer Engagement Surge

Business Impact

Scalable Brand Rating Solution
Credible, Independent Methodology

Operational Strategy

Empowering Brands to Improve
50+ brands improved ratings
Launch of sustainability hub

Industry-Wide Impact

Helps brands improve performance
Empowers creators, curators, and consumers by educating on sustainability

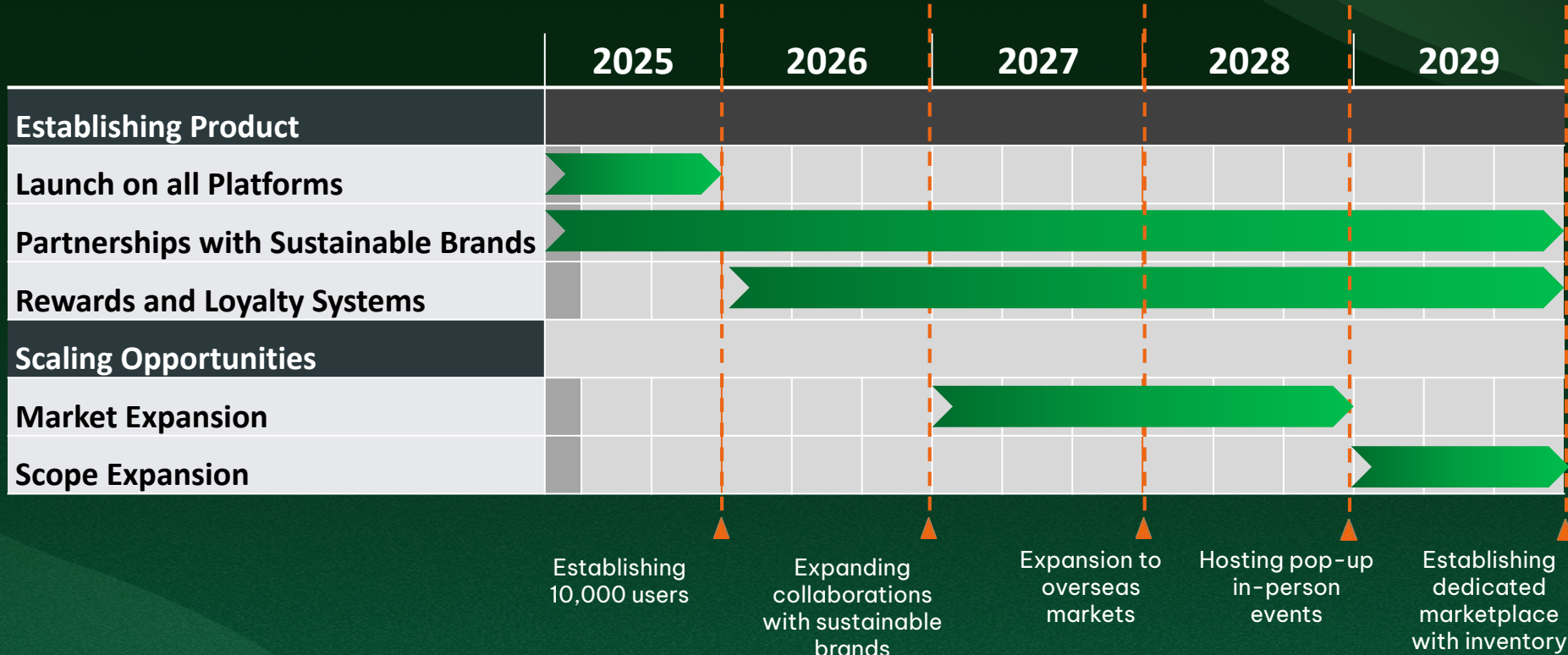**Foundation for Change**

Problem Breakdown | Live Demo | Technical Overview | **Business Overview** | Implementation Timeline

Timeline of our Impact: Projection of Next 5 Years

	2025	2026	2027	2028	2029
Establishing Product					
Launch on all Platforms	██████				
Partnerships with Sustainable Brands	████████████████████████████████████				
Rewards and Loyalty Systems		████████████████████████████████			
Scaling Opportunities					
Market Expansion			████████████████		
Scope Expansion					████████

Establishing 10,000 users

Expanding collaborations with sustainable brands

Expansion to overseas markets

Hosting pop-up in-person events

Establishing dedicated marketplace with inventory

Appendices

- https://www.unep.org/news-and-stories/story/putting-brakes-fast-fashion
- https://www.shu.ac.uk/news/all-articles/latest-news/fast-fashion
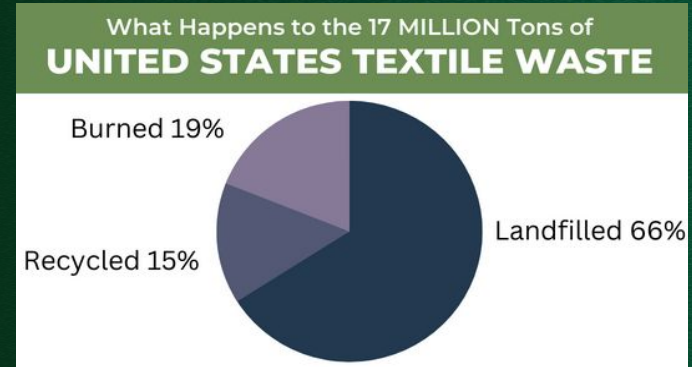- https://www.asustainablecloset.com/home/the-second-hand-market-is-expected-to-double-by-2027#:~:text=ThredUP%20is%20an%20online%20marketplace,by%20an%20average%20of%2025%25.

Fast Fashion Market Size Over The Years

https://www.uniformmarket.com/statistics/fast-fashion-statistics

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https://davidsuzuki.org/living-green/the-environmental-cost-of-fast-fashion/