Ubiquitous and Mobile Computing
CS 528: Goat Sale App

Florina Asani, Amisha Jindal, Baoxin Liu, Bhoomi Patel, Sanika Patki, Srinarayan Srikanthan

Computer Science Dept.
Worcester Polytechnic Institute (WPI)
No app available for WPI students for buying, selling or renting stuff

Only medium is email which gets cumbersome for those who are not interested

Need a proper platform instead of outlook
Methodology

- Seller use cases: Adding, modifying and deleting new listings
- Buyer use cases: Viewing and responding to listings
- Effective communication between entities involved without any inconvenience to unrelated entities
Difficulty Points

- Mobile Technologies & UI (16 pts)
  - Android Screens
  - Maps
  - Location sensing
  - Camera
- Ubiquitous Computing
  - Speech Recognition/GeoFencing (6 pts)
- Machine Learning Component (Recommender System) (10 pts)
Related Work

- As of now, there's no application or website that allows for direct communication between buyers and sellers in WPI.
- Websites like VarageSale, OfferUp and Bonavendi allow location-based trade but they're not specific to students of WPI.
System Architecture
Implementation Plan

- Sell
- User Profile
- Buy
- New Listing
- Modify Listing
- View Listings
- Buy Stuff
- Update Details
- View Purchase History
- View Saved Items
- Save
Implementation Plan

- Title
- Description
- Location
- Add

- New Listing
- Modify Listing

- View Listings
- Buy Stuff

- Title
- Image

- Item Name
- Description

- Save
- Buy
Timeline

**Analysis**
- **WEEK 2**
  - Analyzing & gathering the requirements

**Implementation**
- **WEEK 4-5**
  - Development of the application

**Planning**
- **WEEK 1**
  - Deciding the modules of the application

**Design**
- **WEEK 3**
  - Designing the modules and screens

**Integration**
- **WEEK 6**
  - Testing and integrating all the modules

Image Creation Source: https://cloud.smartdraw.com/editor.aspx?templateId=500c3dfc-22c4-4504-b6d8-634a2cda74d9&noro=1&nsu=1#depoid=16516955&credID=-27943991
Mock-Up
Mock-Up
Evaluation Plan

- Survey
  - Circulation of App
- Alpha version test
  - Determination of usage of App
- Beta version test
- Feedback collection
Supplementary Features

- Location Based Travel Paths?
  - Users will be given an option to input a meeting point which can be modified as per the requirement

- Expansion to other colleges in Worcester?
  - Initially, the app will just be for the students of WPI
  - It can be extended to other areas later

- Relation to Potpourri list?
  - The app will be circulated on the potpourri list as well as other lists so that it becomes accessible to everyone

- Personalization?
  - Recommender system to give user-specific suggestions
Future Scope

- Extension to other colleges in Worcester
- Adding new features such as leasing, tutor services etc.
References

- **CS 528 Final Project Page, Fall Semester 2018**
  
  https://web.cs.wpi.edu/~emmanuel/courses/cs528/F18/projects/final_project/final_project.html

- **Varage Sell – Bull & Sell Locally**
  
  https://www.varagesale.com/

- **Worcester Craigslist**
  
  https://worcester.craigslist.org/