UX Design and Critique Case Studies

Choose one of the following application case studies for your design. Or you may propose another application that will require instructor approval.

Bicycle Share System

Bicycles are available at geographical distributed bike stands for the short term public to rental for a small fee. The target market for the bike rental system includes municipalities and institutions like RIT who are motivated to encourage healthier life styles, and reduce congestion and emissions. They also want to earn extra revenue or at least break even.

Features:

- Search for available bikes based on user location. Search results include the number, size, and type of bicycles available by bike stand location.
- Reserve a bike for immediate or later use.
- Unlock the bike at the bike stand using a provided code to begin riding it.
- Search for a bike stand for returning the bike.
- Return the bike and pay the fee.
- Complete the required survey about the mechanical condition of the bike and the ride experience.

Convenience Store Point of Sale (POS) System

The POS system is deployed behind the counter in convenience stores that dispense fuel as well as sell a variety of goods in the store. It provides an interactive interface to store clerks to handle three categories of transactions: dispense fuel, sales of merchandise, and lottery ticket sales. Each clerk has an account and must log in and out of the system for security.

NOTE: Assume the POS app is hosted on a stand-alone in-store computer with local network links to the pumps. For security purposes, the POS system is only connected to the Internet when off-line for maintenance purposes.

Features:

- Enable fuel dispensing following validation of card transactions at the pump or in-store pre-pay cash payments.
- Reset the pump.
- Emergency pump shut down.
- In-store merchandise sale transactions; cash or credit, coupons, bar code scan or manual entry of product code, running list of scanned items with prices.
- Lottery ticket sales from a list of available games as separate transactions.

Micro Loan Service

People often need to borrow relatively small amounts of money on a short term basis to startup new business ideas or for other unexpected purposes. The Micro Loan Service provides them with a simple, safe, and reliable source of funding with low interest rates and flexible payback plans. Loan approval, while not guaranteed, is widely granted with one qualification. The applicant must have a co-signer who has proof of good financial standing.

Features:

- Registration – all applicants and their co-signer must be registered to establish an account they share. All users must be authenticated to use the system.
    - Enter name, address, email, and bank account number.
    - Electronically sign the terms and conditions.
- Apply for a loan. Select the loan amount and payback plans from a list of predefined options. Payment plans detail the time intervals and amounts of re-payments. The fixed interest rate is displayed.
- Validate loan. Only available to the co-signer.
    - The requested loan is presented to the co-signer who can then either accept it or decline it.
    - If declined, add comments to be returned to the applicant.
    - If accepted, the system sends an approval to the applicant.
- View loan status. Applicants and co-signers can view the status of the loan at any time.
    - The current state of the payment plan is displayed and any lagging re-payments are highlighted.
- Make payments. Pay an installment amount or payoff the entire loan balance.