MICHIGAN STATE UNIVERSITY

Project Plan Presentation

Community Giving Fund Database and AI Workflow

The Capstone Experience

Team PACE

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From Students…
…to Professionals

Project Sponsor Overview

- Program for All Inclusive Care for the elderly
- Provides services as an alternative to a nursing home
- Community Giving Fund (CGF) funded through philanthropic contributions



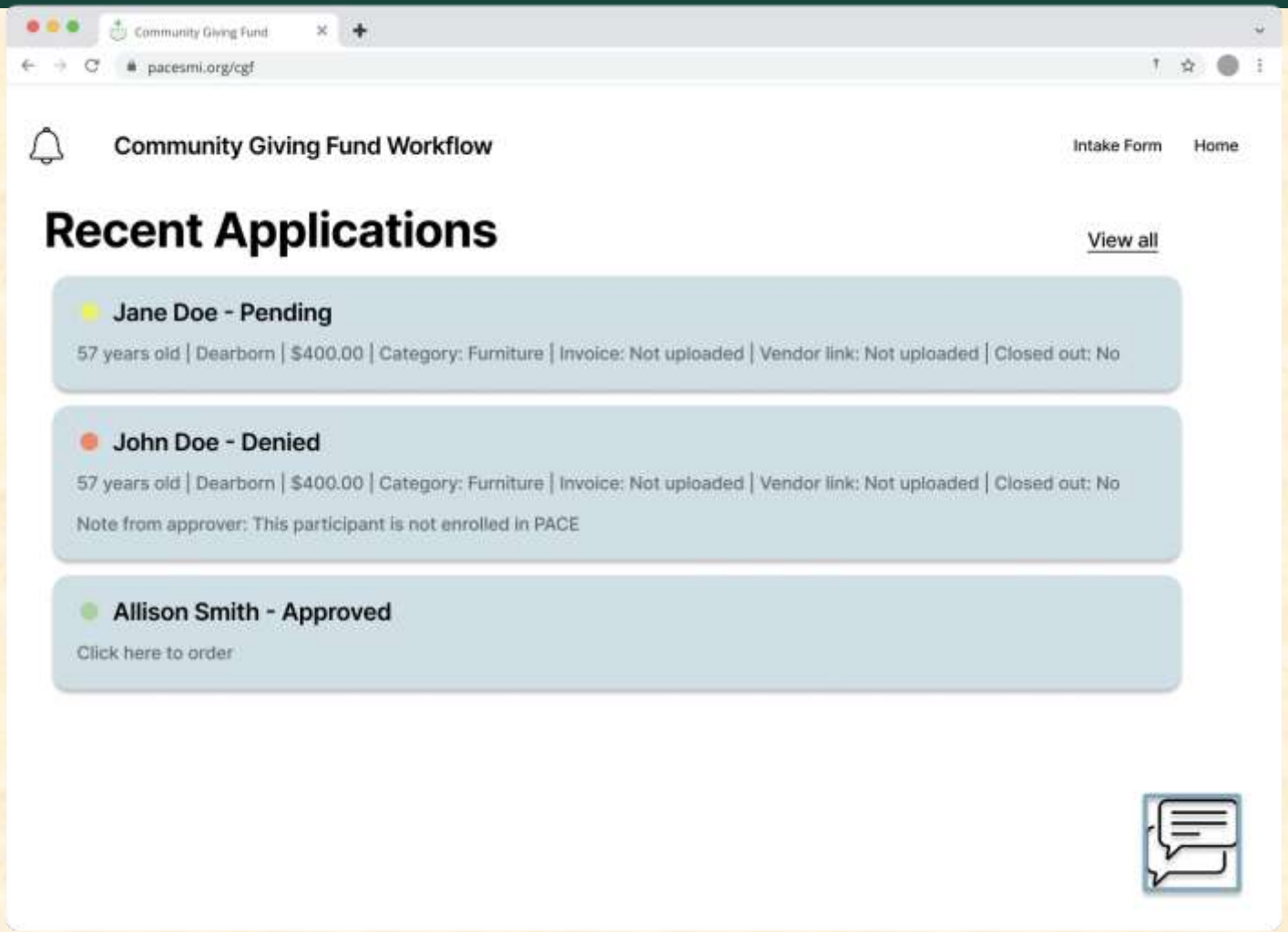
Project Functional Specifications

- Social workers request funds from the CGF for participants to use
- Current process uses email chains, spreadsheets, and manual reconciliation
  - Could cause requests to take longer to get approved
- Our solution is a centralized web application for the entire CGF workflow
- The system connects social workers, finance staff and approvers on one platform to decrease turnaround time

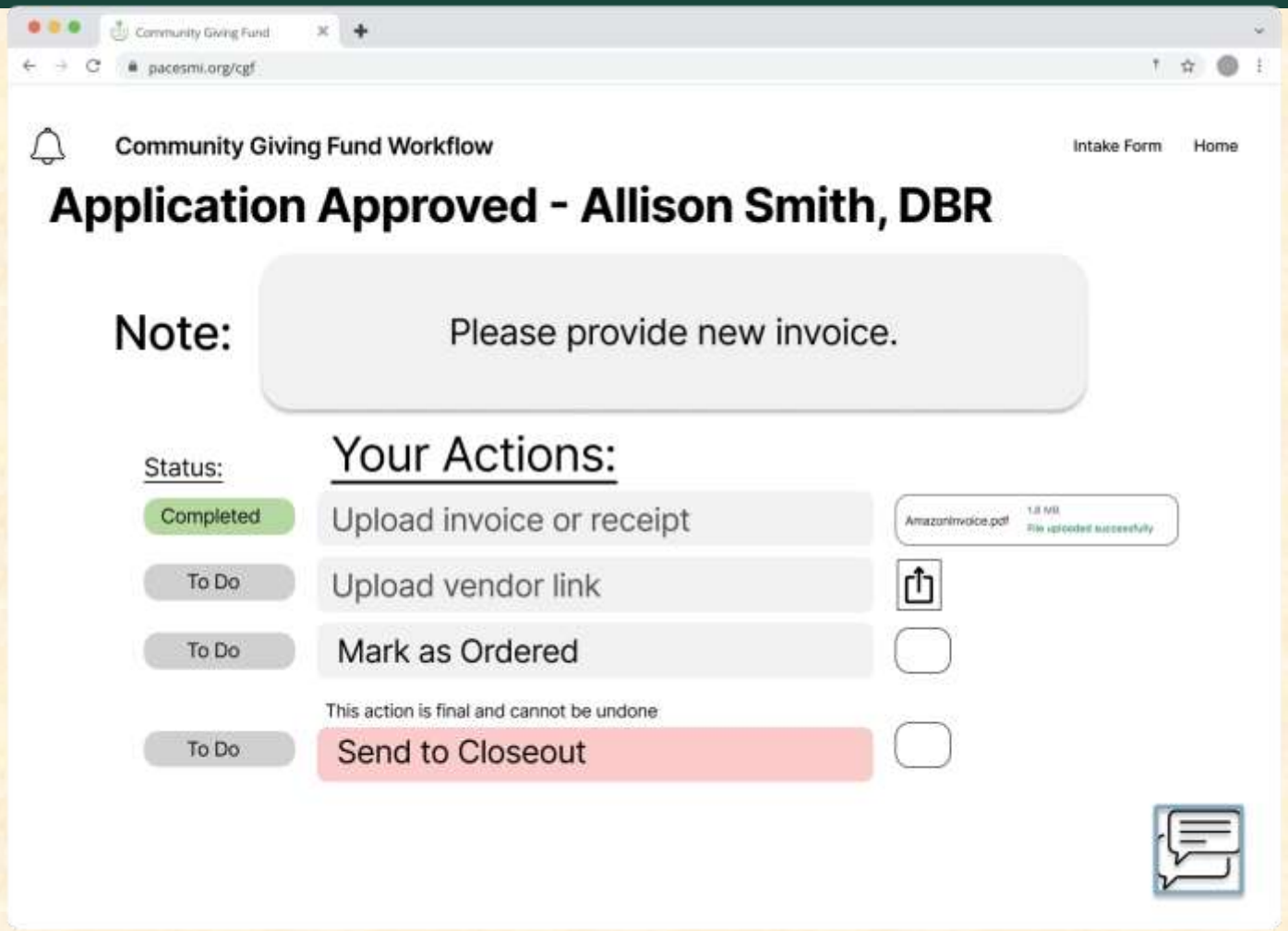
Project Design Specifications

- Easy to use for non-technical people
- Able to click a button and everything is complete
- Clear status stated for every order

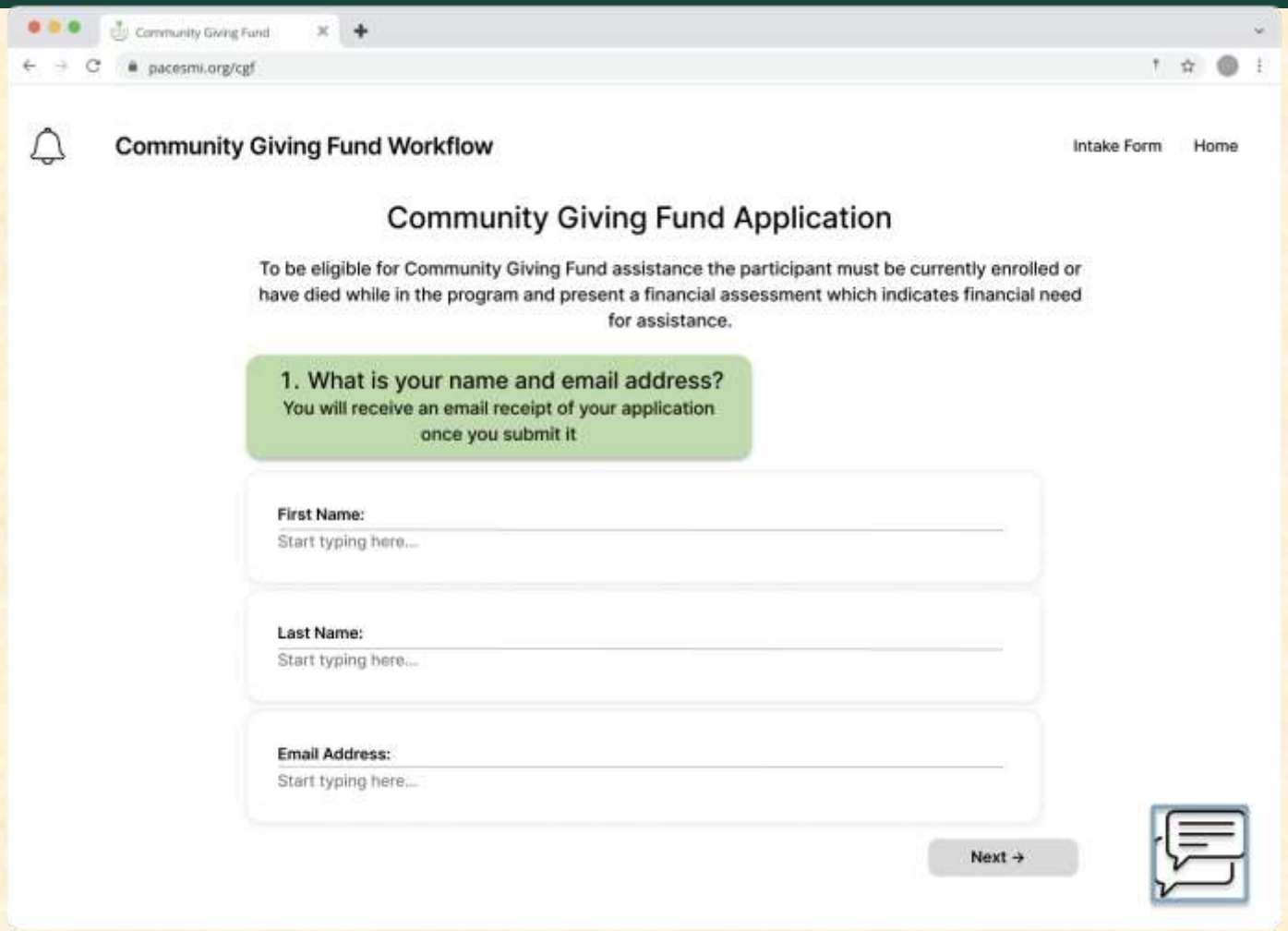
Screen Mockup: Social Worker Home



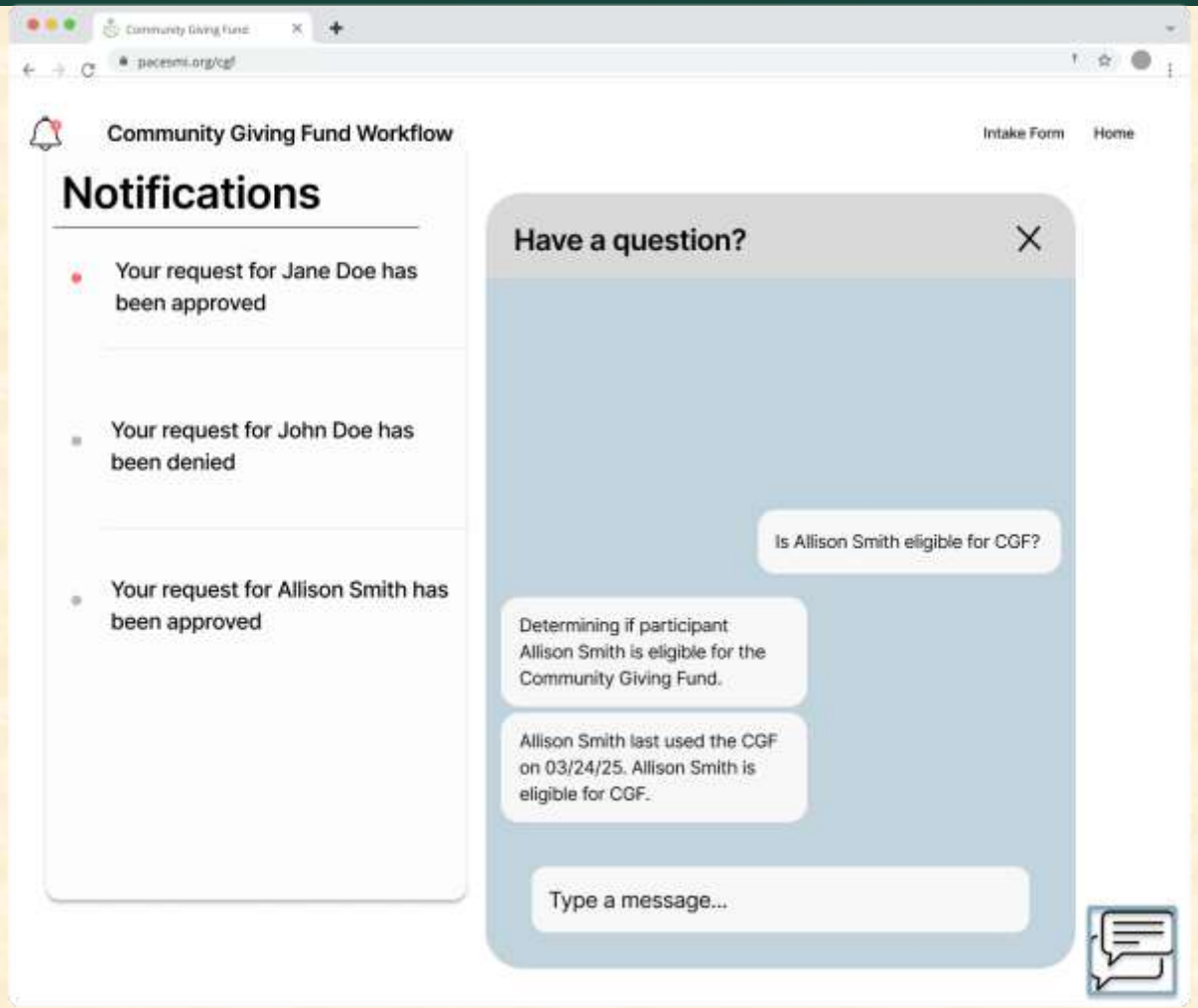
Screen Mockup: Application View



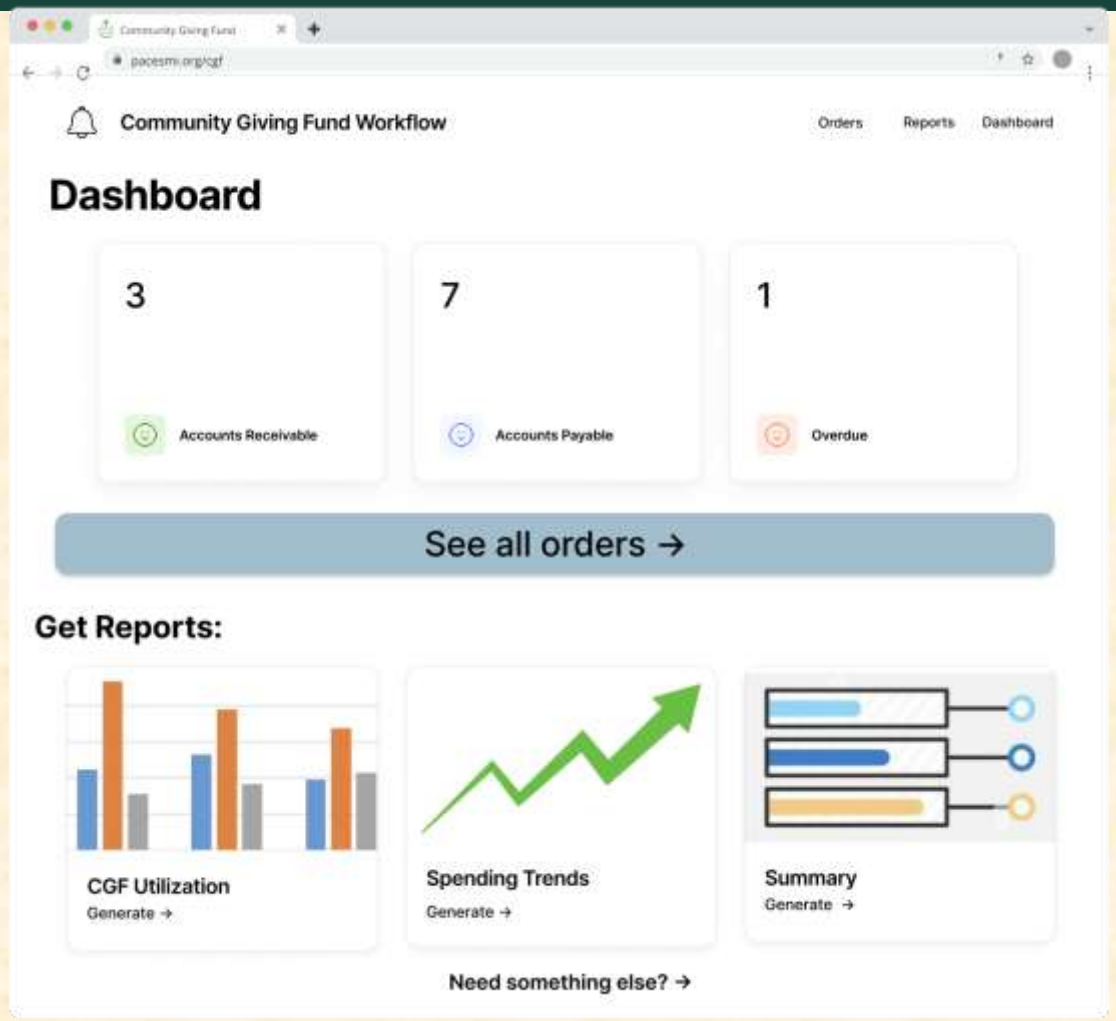
Screen Mockup: Intake Form



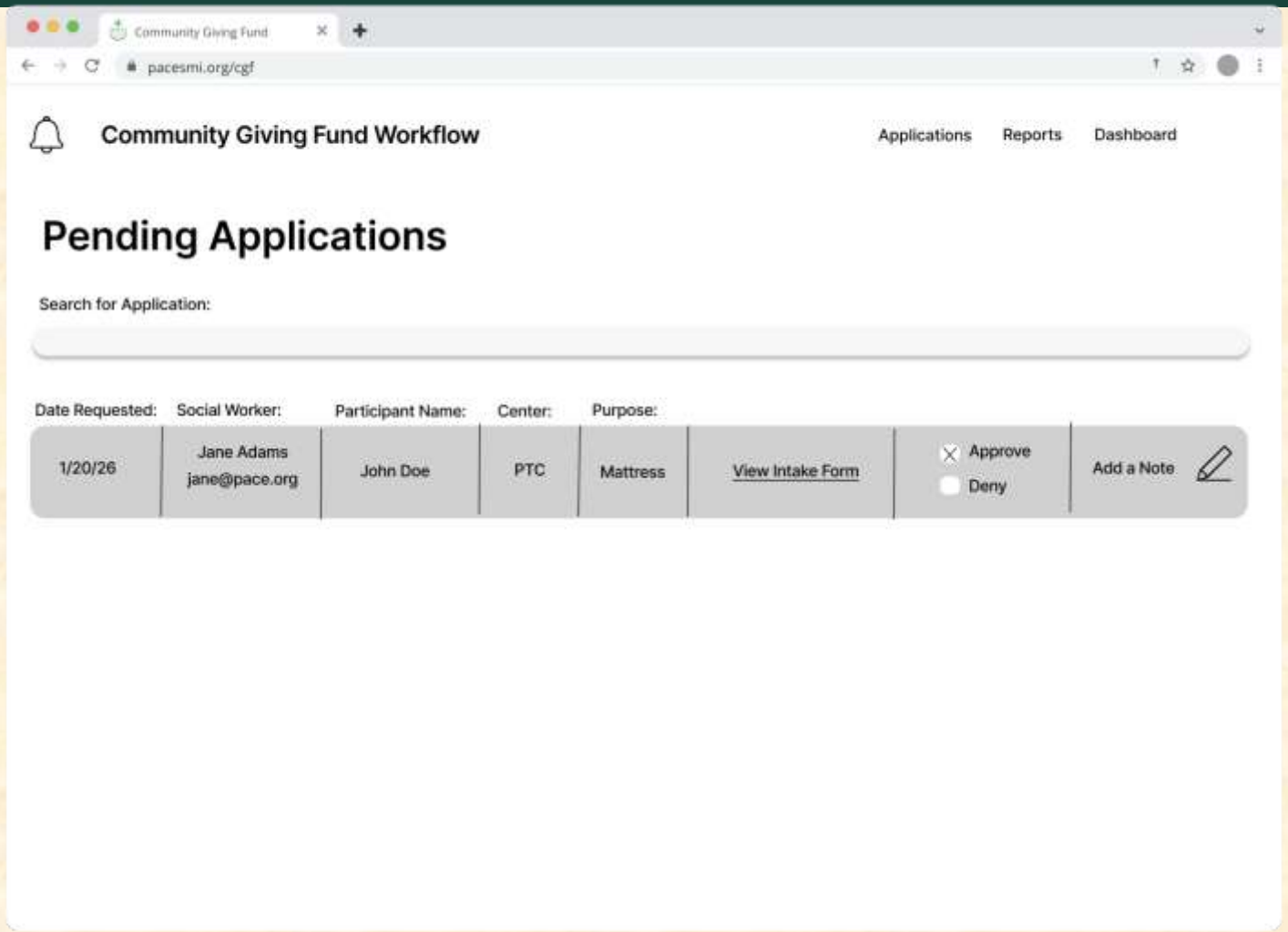
Screen Mockup: Popouts



Screen Mockup: Finance Home



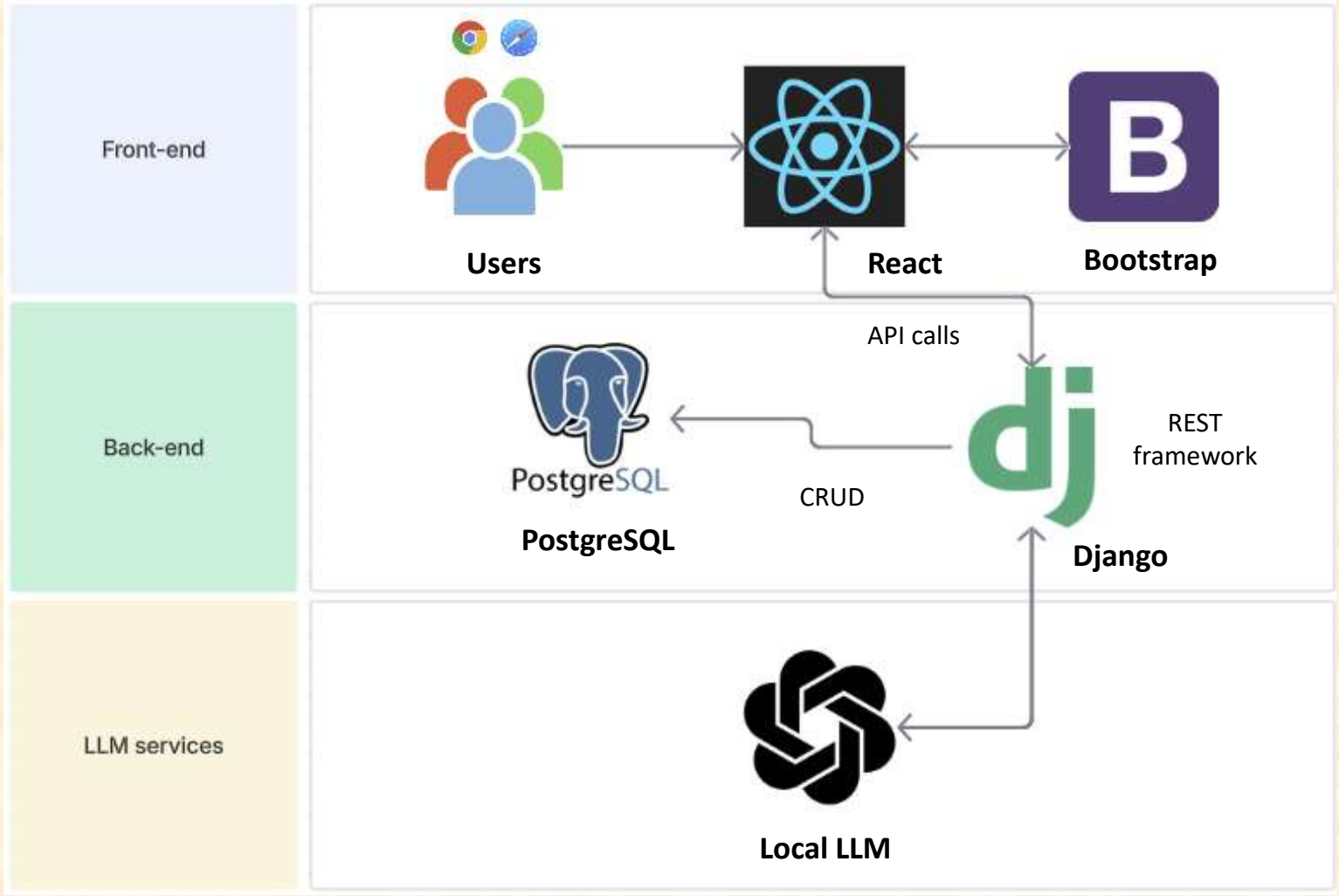
Screen Mockup: All Applications



Project Technical Specifications

- Python
- Django
- React
- PostgreSQL
- Local LLM model

Project System Architecture



Project System Components

- Hardware Platforms
  - Development Laptops
  - Web Server
  - AI-hosting Server
- Software Platforms / Technologies
  - React
  - Typescript
  - Python
  - Django
  - PostgreSQL
  - Bootstrap
  - AI Model

Project Risks

- Risk 1: HIPAA Compliant AI
  - Social Workers are uploading/searching for sensitive information
  - Mitigation: Plan to use a local LLM for data security and privacy
- Risk 2: NLP accuracy
  - AI layer misinterpreting questions and responding inaccurately
  - Mitigation: Refine the model to convert natural language to SQL statements
- Risk 3: Secure Login Access Control
  - Ensure that the correct role ie. social worker, financier, sees the correct information
  - Mitigation: Microsoft Active Directory is consistent with their current login method
- Risk 4: Platform Accessibility & Usability
  - Non-technical staff using the platform, needs to be intuitive and easy to use
  - Mitigation: Using clear navigation and guided workflows to minimize user effort, test with staff before deployment