

Fairfax County, VA Accessible Housing Repository

Team HouseGuides

Current Situation and Pain Points

How can we use technology to better connect the supply of accessible housing with those in need of such accommodations?

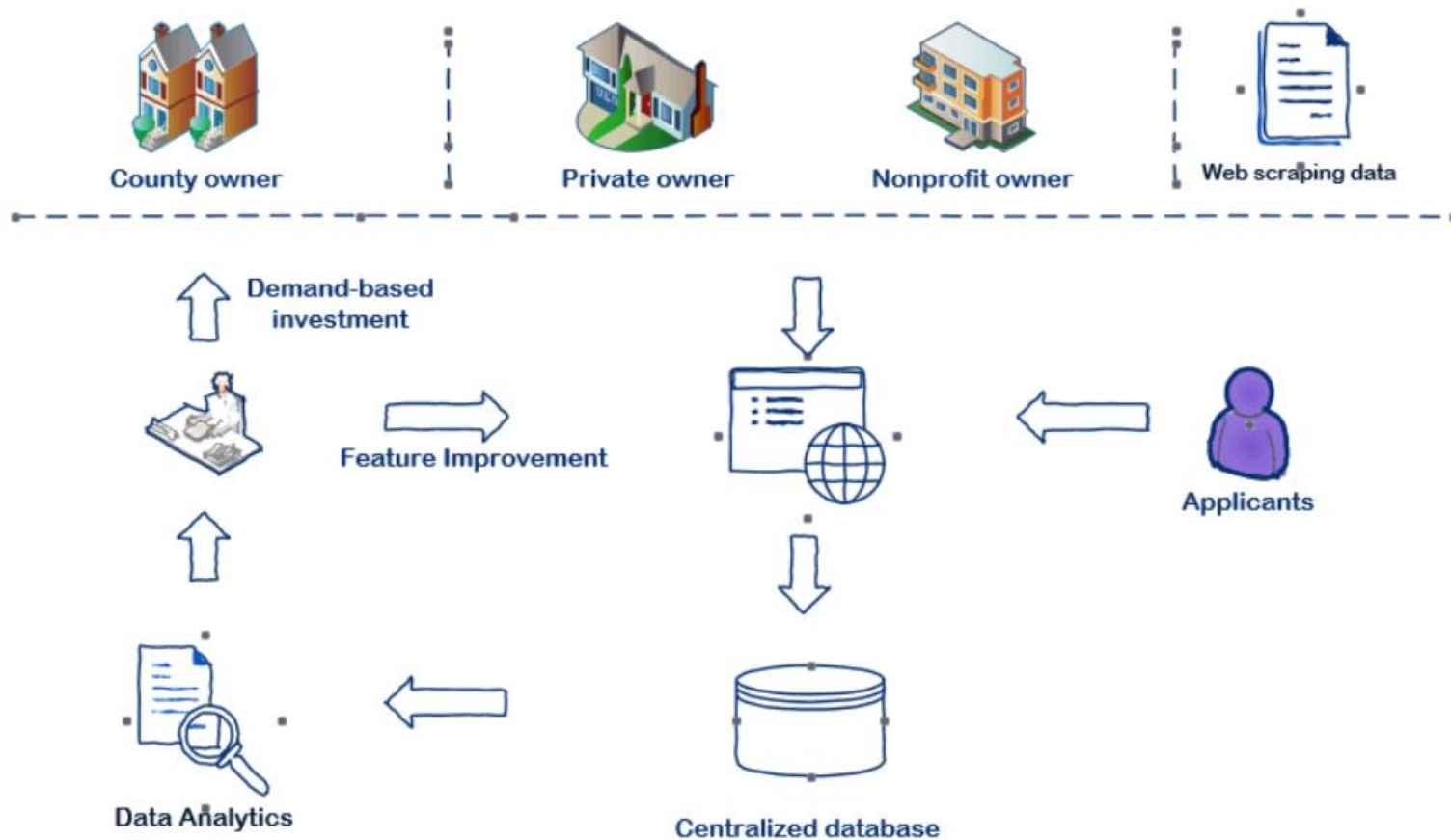
Accessible Housing Demand

- Demand far outweighs supply
- Lack of comprehensive and centralized resource on supply
- Unit features do not always match individuals' needs properly

Existing Housing Supply

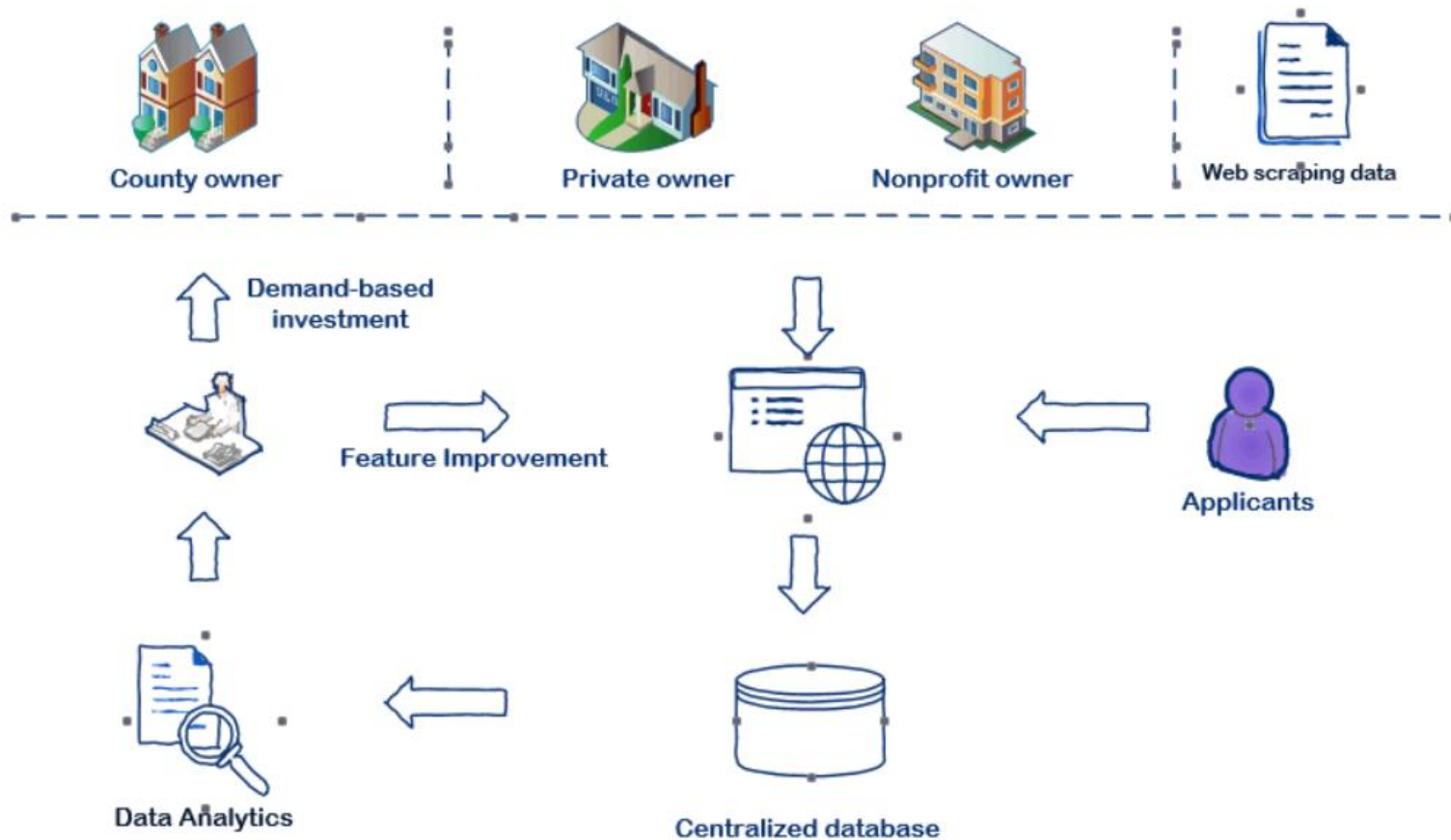
- Lack of information on private and nonprofit organization housing resources
- Insufficient data on applicants that would better connect them to units
- May require additional modifications
- Accessible features may exceed the needs of the renters

Overview of System Architecture



- Includes private, non-profit, and commercial housing data
- User-friendly website and integrated data center improve matching accuracy and speed

Overview of System Architecture (continued)



- Inform further system modifications based on user behavior and matching results
- Demand-based funding investment to improve efficient matching

Data Feeds and User Definitions



Property owners

- Provide detailed descriptions for available properties
- Select available accessibility features, including a variety of reasonable accommodations



Prospective applicants

- Apply to program waitlists, identifying specific special needs and modifications



Web feeds

- Add publicly available data on relevant housing websites through web-scraping
- Link direct sources of already existing data on a regular basis



Renters

- Explore available housing options
- Filter properties by accessible features

<https://sling.shinyapps.io/housingrepository/>

Applications Portal and Future Features



Waiting List Applications

- Name
 - Contact Information
 - Income
 - Disability type (Hearing /Mobility /Sight)
 - Range of distance considerable
 - Accessibility needs
- Other features not listed



Search Engine of Available Rental Properties

- Available rentals
- Feature filters include:
 - Range of rent
 - Distance to work/school/etc.
 - Accessibility features
- Direct contact information (for private owners only)



Future Features

- Search engine will track user behavior, helping improve feature definitions
- Matching algorithm will improve search engine and better connect the supply of accessible housing
- Analytics dashboard will include user behavior, demand, and market proportions
- Expand system to include homeless, displaced, and elderly populations

Thank you!
Questions and comments?