

Lost and Found App

A web solution to manage and return lost items in institutions

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Features

- Clients: Institutions such as universities, schools, workplaces, etc.
- Customizable UI to adapt to different universities or companies
- Human approval to confirm computer generated possible matches
- Email notifications to inform about matching and pickup availability
- Archives to track and resolve any false pickups
- PESEL needed to finish pickups
- Image support to easily identify and match items
- Spam and redundant forms protection

Features

- Easily deployable using Docker
- Edit or Delete previously submitted lost forms
- Receipt generation on pickup
- View policy and editable by admin
- Statistics viewable by admin
- Report false pickups
- Permitted email domain

Technologies

- Python
- Frontend: Reflex
- Database: Postgres
- Deployment: Docker
- Version Control: Git

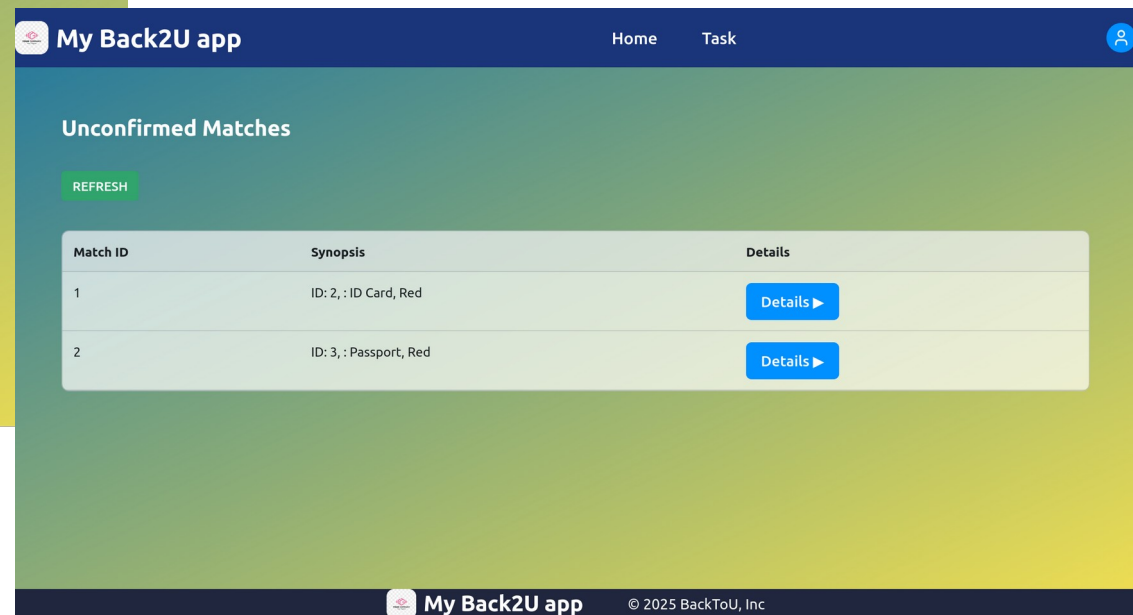
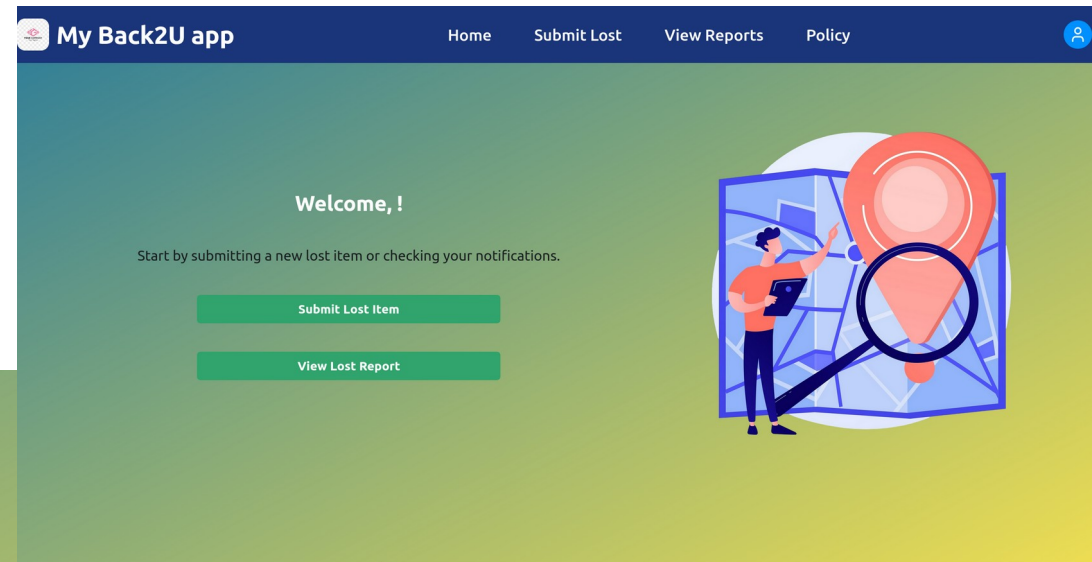
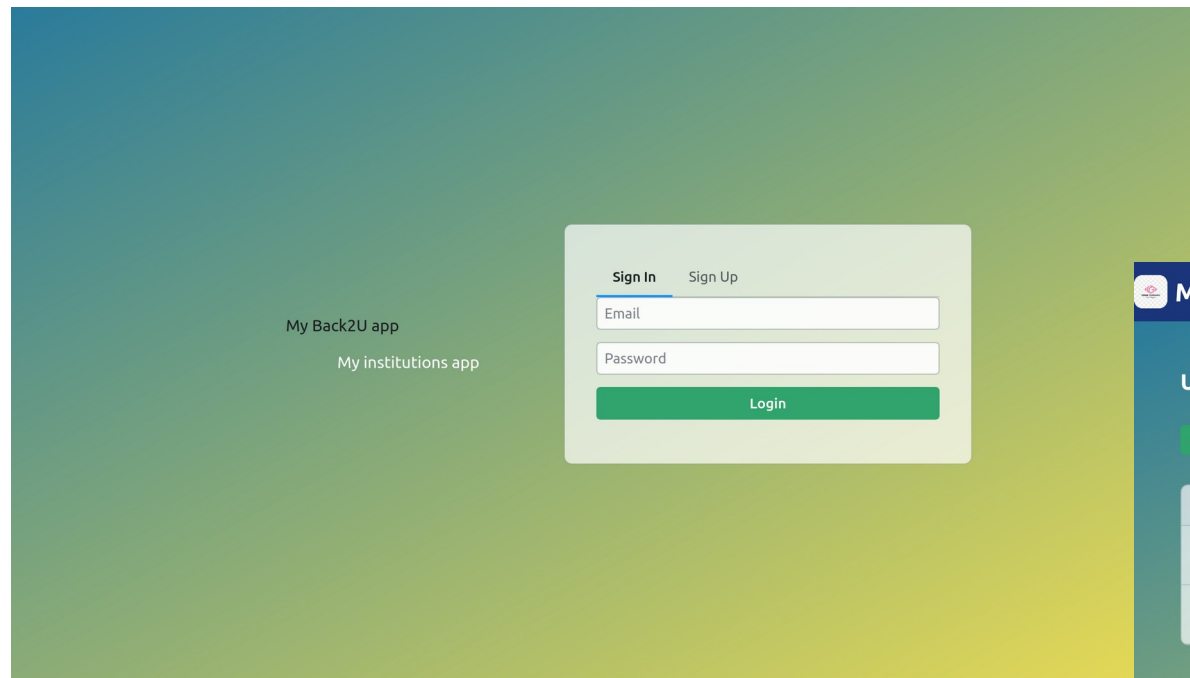
How it works

- Record found items to DB: When an item is found, its traits are recorded to the database. This is done via the worker frontend
- Records lost items to DB: Anyone who has lost an item fills out a lost item form with the traits and any additional information, which are stored in the DB. This is done via the frontend through any user
- Matches lost and found items: Items found with traits similar to those lost in the DB are matched. Worker sees matches, reads additional info, and confirms the match
- Match notification: Person with lost item is notified (email) of a match and informed that pickup is possible
- Confirm and archive match: When the item is returned in person, the item, along with the person's credentials, is stored in an archive DB

Design

- Stealing is prevented by imposing the following design
 - Institution is assumed to be trustworthy, they make the decision to match the item
 - An ordinary user doesn't have access to the found items list, they may only fill out a form
 - Upon pickup, the person's credentials are archived if needed (ex., Police are involved)
- Matching
 - Each category (phone, clothing, etc.) will have its own table and attributes
 - Attributes in tables will have predefined enum values (to promote automated matching)
 - Additional information is specified in a text attribute
 - Other category for others, very general attributes (size, color)
 - For each found item, the app lists all lost forms with at least n matching attributes, sorted in descending no. of matches

Screenshots



Thank you (and Q/A)