

Group 16 - Project Proposal (National Land Exchange Portal)

Group Members:

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Introduction:

This website acts as a platform for users to search, view, sell and purchase properties in certain areas of the USA (such as New York, New Jersey, etc).

This sale and purchase of land will be overseen by a regulatory governing body (through our web app) which will have more privileges to the portal, and will approve each and every transaction happening on it.

A user can add a land that they own after creating their account. They will have to upload land ownership proof documents in order to prove their ownership, and the governing body will verify the documents on their end and approve/reject the request.

After each transaction (whether successful or not), the seller and buyer, both, will have the opportunity to rate or report the other party (To avoid frauds and protect both users).

Apart from admin, sellers, and buyers, there will be three more entities involved in each transaction – a title company, a land surveyor and government, who will verify and approve/reject transactions from their end and will send an update to both the parties about the reason for rejection and will terminate the whole transaction. This'll give both parties an option to back out of the transaction unharmed, or re-start the transaction with correct details.

Motivation/Purpose:

This website will cover almost all of the aspects of sale and purchase of properties – from finding sellers and buyers, to title clearance, land surveying, permits checking and transferring ownership of land from one profile to another. If implemented properly, this website will act as a one-stop for all the parties involved.

Core Features:

Our website will have 5 roles, each with different privileges –

- User – Can buy and sell properties; Can add their already owned land on the website
- Admin – Will approve/reject newly added land; Will approve/rejects new account creation for all the other types of users; Will approve/reject all land

transactions at the end; Will transfer land ownership from one profile to another

- Land Surveyor – Will approve/reject the transaction based on land map and property details
- Title Company – Will approve/reject the transaction based on title status of the land
- Government – Will approve/reject the transaction based on whether all land permits are done properly or not (for now, we are keeping only one government account, and assuming that all land will require permits for transaction, regardless of the state)

Pages of web app (for Users):

- Main Page:
 - Search for property by area
 - Sort the listed properties
 - Filter the listed properties
- Property Page:
 - Information about the selected property
 - Option to contact the seller
- Transaction Page:
 - (From buyer's side) Request for buying the selected property
 - (From seller's side) Approve or disapprove the request.
 - Track transaction progress
- User Profile Page:
 - Personal Information
 - Reputation; derived from rating system
- Land Surveyor Profile Page:
 - Land Surveyors Information
 - (From land surveyor's side) Approve/Reject transaction; If rejected, then mention reason in comment box.
- Title Company Page:
 - Title Company's Information
 - (From title company's side) Approve/Reject transaction; If rejected, then mention reason in comment box.

Pages of web app (for Admin):

- Main Page – View all properties
- Account Approvals Page
 - Approve or reject new user's account; If rejected, then mention reason in comment box.
- Property Approvals Page
 - Approve or reject land added by users; If rejected, then mention reason in comment box.
- Transaction Approvals Page
 - Approve or reject the transaction after it goes through all the steps – land surveyor approval, title company approval and government permit approval; If rejected, then mention reason in comment box.

Pages of web app (for Title Company / Land Surveyor / Government):

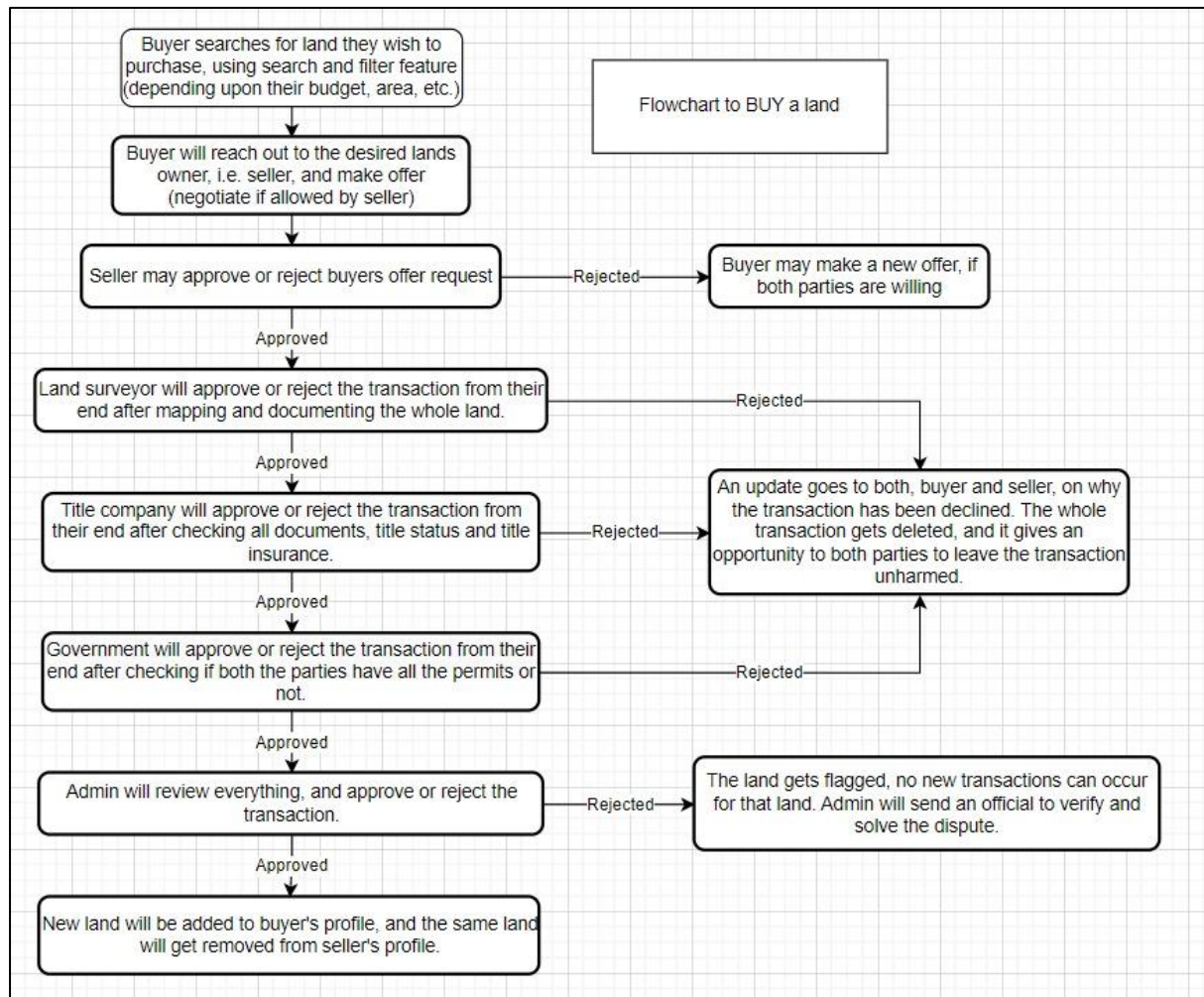
- Main Page
 - View all the transactions assigned to them
- Transaction Page
 - Approve/Reject transaction; If rejected, then mention reason in comment box.

Extra Features:

- History for previously searched properties
- Admin can freeze land, user accounts, land surveyor accounts and title company accounts
- Admin can view accounts of flagged buyers & sellers, and send them warnings when they are flagged

GitHub Link: [daksh95/CS-546-FinalProject \(github.com\)](https://github.com/daksh95/CS-546-FinalProject)

Flowchart (to buy land):



This is the main flow of our application and will determine all the features of each role.