

# Design Document

Code Name: *TreeHouses*

## Concise Statement of Porpoise

TreeHouses will act as a social network catering to the specific needs and micro-political community structure of the Trans community.

## Background and History

The Trans community has long had a unique social structure born out of sociopolitical struggle and oppression. In times where queer youth and young adults have not received necessary resources or familial role models, the social and micro-political House system was created. Older, responsible, well-known members of our community took on roles as parents, taking our youth under their wings as children. While originally named and functional for competing Queens and Kings in New York City and Chicago, they quickly expanded purpose to help raise our queer brothers, sisters and siblings all around the country.

A (very) non-exhaustive list of well known houses include

- Imperial House of Black Inc.
- The House of St James
- House of Xtravaganza.

These larger houses span the country, the largest — the Imperial House of Black — is incorporated. With cliques and close-knit sub communities formed on the city level, they become bureaucratic with matriarchs, patriarchs and polyarchs acting as leaders of these groups, both as a figurehead and pivotal micro-political liaison between cities.

With this naturally-formed social hierarchy, members of the house are able to share resources with their family. Some may have something of value — exempli gratia, a job opening in their place of employment — or need something: they are *without* a job, for example. Because of the close ties between these members, even if they do not personally know each other, a common family member is able to put the two together to fulfill these needs.

Before we continue, we should note the intersectionality present in this community. One of the many influences in the creation of the house system is the fact that older, white gay men were unfairly distributing resources to younger, white drag queens by way of drag shows and competitions. In fact, if queens of color expected to place well, or even be given a fair shot, they were often told “to lighten their mug” — a reference to the stage drag makeup being “too ghetto” for those in power in gay culture (often by very virtue of being not white). Drag kings were rarely even acknowledged in this community.

Because of these injustices in an already externally oppressed community, the queens of color — with few notable exceptions from the white community — formed their own competitions and events: hence ball culture was born. Named for the lavish events of royals in times past, a ball was extravagant, flashy and fabulous. They offered a safe space for persons of any gender and identity. The balls doubled as charity events, raising money for queer homeless youth. In the 1980’s with the rise of the HIV/AIDS epidemic, they began to raise money for research and care for those affected.

## Technical Consideration

As a house is born and grows, care and administration become more difficult and bureaucracy grows. However, the services that are offered and made possible by houses seem extraordinarily compatible with ideas and technologies in the IT field.

- ***The family tree of a house*** can be modeled by a directed acyclic graph, with down-graphs consisting of all children of a parent.
- ***Sharing and receiving resources*** can be facilitated in the way of database insertion and extraction. With the “Bubble-over tree traversal” algorithm described later in this section, these requests for help can be automated in a way that brings these already close-knit families even closer.
- ***Organizing balls and charity events*** can be implemented with a robust calendar system and contact

lists.

### Front End Conceptualization

TreeHouses will feature a web and mobile app interface. After creating a profile — a node in the **forest of houses** — the user builds their contacts by listing parents and children, hooking into existing houses or creating their own.

With this directed graph in place, users post **resources** available to them. If a user requests a resource, the tree is traversed and the user is shown a chain of house-mates with the final member having the resource. This way, if the two do not immediately know each other, they can contact intermediate members until comfortable.

Additional functionality includes hosting and planning 'inter-house' **balls** — community events hosted by one or more houses. A simple calendar section that is strongly tied to the **user's and house's location** facilitates this interaction.

### Back End Conceptualization

#### *Bubble-over Tree Traversal*

1. A resource is located
  - a. The direct parent(s) of the user are traversed.
  - b. All parents' children are traversed.
  - c. Step 1 is repeated with the direct parent(s) as the requester
2. The path is traversed backwards, the requester is shown the path and given the opportunity to communicate with any house-mate along the way as comfortable.

### Safety and Security

Because of the social danger of having essentially a phone directory of queer and trans individuals, members are only visible to other members if given permission — implemented as a '**sharing password**' created by members and distributed.