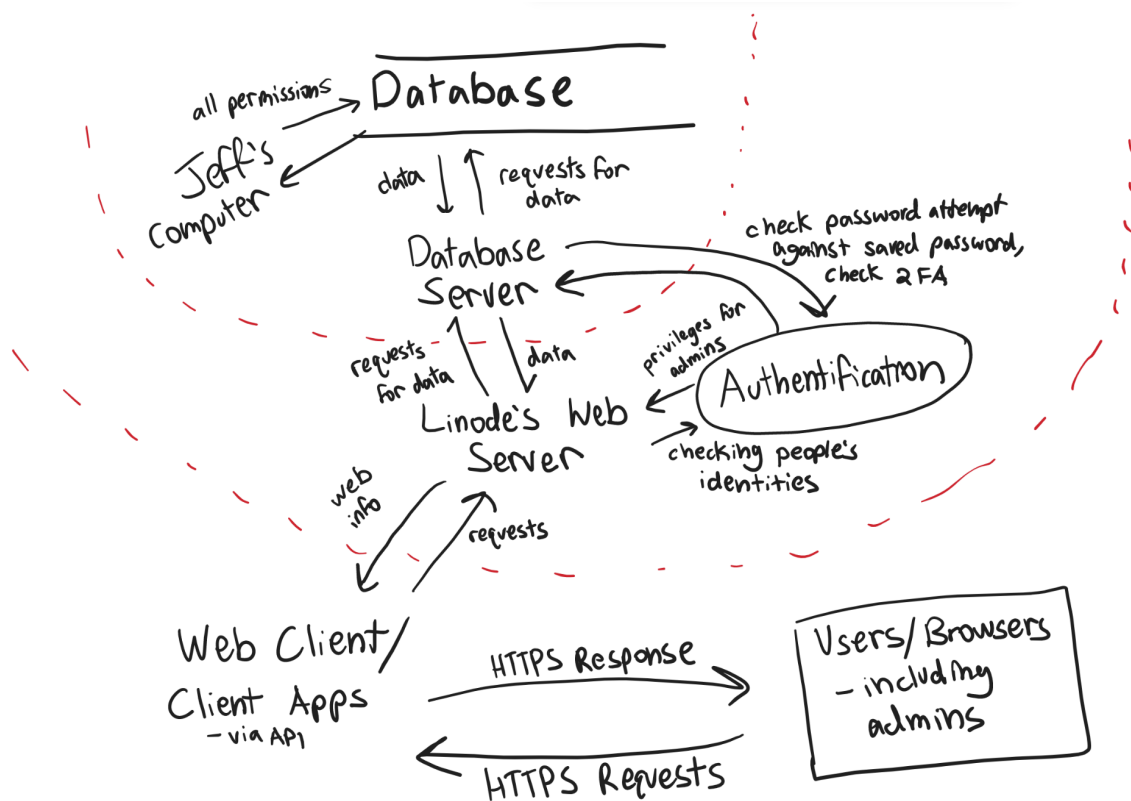


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Collaborators: Lily Haas & Ashok Khare (we worked did the initial brainstorm together and then wrote up our own reports separately)

## Data Flow Diagram



## STRIDE Threats and Mitigations

### S - Spoofing

- [Panda Universal](#) (Tapir Unlimited's main competitor, international crime syndicate, and extremist religious sect) breaks into Jeff's house and uses Jeff's computer
  - Jeff barricades his house (moats, walls, and anti-aircraft missiles) and becomes a hermit
- Fake Tapir Unlimited, called Tapir Unlimited (it's an I not an l) pretends to be Tapir Unlimited and then just leaks the location and personal information of anyone who tries to use it
  - File a lawsuit to take down the website
- Attempting to sign into accounts with the usernames on public forums and using the password "password"
  - 2FA required or limit password choices (have to be a certain length, can't be very common passwords)

### T - Tampering

- Panda Universal members use the username (`<font size="200"> PANDAS RULE TAPIRS SUCK </font>`) to inject HTML to make their username absolutely enormous and block the screen
  - Sanitize inputs to stop people from injecting HTML with their usernames
- Someone uses Jeff's computer when he's in the bathroom at his favorite coffee shop to delete the accounts of high ranking Tapir Universal staff (admins) or add tapir misinformation into the database off of a thumb drive
  - See "hermit Jeff"

#### R - Repudiation

- Panda Universal members with banned accounts use random phone numbers to create new accounts, unlinked to their previous bad behavior
  - Send a confirmation text to the phone number and require a phone number to sign up for an account
- Erase the list of banned members with Elevation of Privilege, so all Panda Universal devotees go back to spamming Tapir Unlimited with fake purchasing requests and tapir hate comments
  - Backup the list of banned members so it isn't so easy to erase and then immediately reban all of the offenders
- Use a VPN to circumvent IP address bans (also Spoofing)
  - Keep banning the new IP addresses of disruptive accounts, as well as the accounts and try to make it more difficult to make several accounts

#### I - Information Disclosure

- A Panda Universal adherent is always stationed to watching the HTTP port, after installing WireShark on Jeff's computer at a coffee shop, and leaks all personal information and any credit card info that passes through
  - Use HTTPS instead so they can't watch the packets
- Panda Universal zealot stalks Jeff, takes his keys, goes into his house when he's asleep, and downloads the whole database of personal information and credit cards. Then leaks all of it (also spoofing)
  - Jeff watches his keys or makes is so the database is more securely protected even on his computer

#### D - Denial of Service

- Pandas Universal DDOSes Tapirs Unlimited with a botnet
  - I don't think there's any real way of stopping this, short of bringing down Pandas Universal
- Jeff's internet gets hit by a tree (the work of Panda Universal?)
  - Install the internet connection from underground
  - De-tree the whole neighborhood

- Panda Universal acolyte infiltrates Linode (after mugging a Linode employee, carefully chosen because the acolyte and the employee look similar) and then shuts down the server (also Elevation of privilege)
  - Linode makes sure normal employees don't have access to things that would allow them to shut down servers
- Wholesale erasure of data (people with accounts now can't access them) via Tampering/Elevation of Privilege
  - Backup the data elsewhere, it will go down briefly but everything can be restored

#### E - Elevation of Privilege

- Use Jeff's computer to get all of Jeff's privileges, like wiping all of the data
  - See "hermit Jeff"
- The collective computing might of Panda Universal brute forces all of the admins' passwords until they break one. With these admin privileges, they systematically delete all forum comments mentioning tapirs or spreading anti-panda sentiments
  - Account locks after so many attempts, because it means people are targeting that account

#### Other:

- Panda Universal fanatic steals Jeff's keys, barricades Jeff's house against him, and then claims squatter rights. They haven't done anything (yet) but this is an issue of control & possession
  - Get the police to kick them out of Jeff's house
- A Panda Universal member impersonates a high ranking Tapir Unlimited person on social media and starts spreading misinformation
  - F the social media regulators to ban their account for misinformation and false identity

## Panda Universal Manifesto:

We, the Representatives of the Esteemed and Powerful Panda Universal, promise to with the best of our abilities to Spoof all other heretical anti-panda sites, to Tamper with all data that attempts to dispute the clear superiority of pandas, Repudiate all material supporting lesser animals, Disclose the Information of non-panda believers, Deny Service to anyone who has been brainwashed into hating pandas, and Elevate our Privilege until everyone only loves pandas.