Threat Analysis Using STRIDE
Author: Ashok Khare
Collaborators: Emma Roskopf, Lily Haas (brainstormed ideas but did our own writeups)

Spoofing
- Someone creates fake Tapirs Unlimited website (Solution: Use authentication methods like certificates, PKI)
- Someone uses another person's credentials to masquerade as them (Solution: Ensure secure passwords or use 2-factor authentication)

Tampering
- SQL injection (Solution: limit or specify input types)
- HTML injection (Solution: limit or specify input types)
- Someone accesses Jeff's computer and changes or corrupts the data (Solution: Jeff closes computer when away and requires password to log back in)
- Someone logs in using another person's account and then changes their credentials to lock them out (Solution: 2-factor authentication)

Repudiation
- Someone gives fake information (Solution: 2-factor authentication)
- Someone uses another person's information (Solution: 2-factor authentication)
- Someone physically sees raw database on Jeff's computer or another administrator's computer and shares its contents by word of mouth (Solution: Close computer when away, require password to get back in, don't leave files open when not working on them)
- Use thumb drive to download database files off of Jeff's computer, then give the files to others (Solution: Jeff closes/shuts down computer when away, requires password to log back in)

Information Disclosure
- SQL injection to get data (Solution: limit or specify input types)
- Monitor packets with Wireshark if using HTTP (Solution: Only allow HTTPS port connection)
- Someone with access to the complete database tells unauthorized parties about its contents (Solution: Non-disclosure agreement with legal consequences)

Denial of Service
- DDoS (Solution: no good solution)
- Submit so many files the site crashes (Solution: Limit file size or number of files for uploads)
- Database server goes down due to broken computer, WiFi connection issues, broken router (Solution: have backup server on a different system, maybe connect systems directly to ethernet to avoid WiFi issues)
- Linode server goes down (Solution: Have backup servers/redundancies)
- Database totally erased (Solution: prevent access to database, have backup data)

Elevation of Privilege
- Someone accesses services without signing up for their own account (Solution: require password inputs to access services)

- Someone accesses database without receiving administrator privileges (Solution: restrict access to database)
- Use Jeff's computer for administrative privilege (Solution: Jeff closes computer when away, requires password to log back in)