AnimalsOnFire -- Joshua Kloepfer, Yaying Liang Li, Qina Liu, Thomas Yu

SoftDev

P01 -- Design Doc

2022-01-04

Components

- Collectible: image of animals you can receive when you answer trivia questions right
- Trivia questions: questions testing user on facts
- Burning: image on fire
- Login accounts: users must need account to keep collectibles
- User Profile: all the collectibles, items, special collectibles, achievements that the account has
- Random Picker: mechanism by which a random collectible is given to user; basically like a gumball machine; duplicates not allowed
- Achievements: when user gets a certain item or a certain amount of collectibles (or an other assortment of tasks), user gets a special collectible
    - Achievement page: shows all possible achievements you can get, ones that user have gotten are highlighted
- Items: items users can use to aid in collectible collecting [Hint and Extinguisher items]
    - Some make it easier to answer questions [Hints]
    - Fire Extinguisher: put collectible out of fire and receive collectible despite answering question wrong
    - A hint will be given to the user every 10 questions they answer correctly
    - A fire extinguisher will be given every 10 questions they answer incorrectly
- Special collectible: collectible you can only get through achievements; basically like trophies

Python:
- Will set up the database by creating the tables and adding information to each table
    - Users Table: username, password, Questions
    - Individual Tables: Type, Object, Number
        - Name of the table will be the same as the username
        - Will keep track of all collectibles, items, number of questions gotten correct and incorrect
- Will interact with the APIs by making http requests
- Will send information using flask to create the webpage

Flask:
- Will create the site the user will interact with
    - Sends questions and the collectibles obtained by a user to be displayed
- Will create a session when a user is logged in

Sqlite3:

- Will have tables that will store information related to a user's account that can be pulled via python

Jinja2:

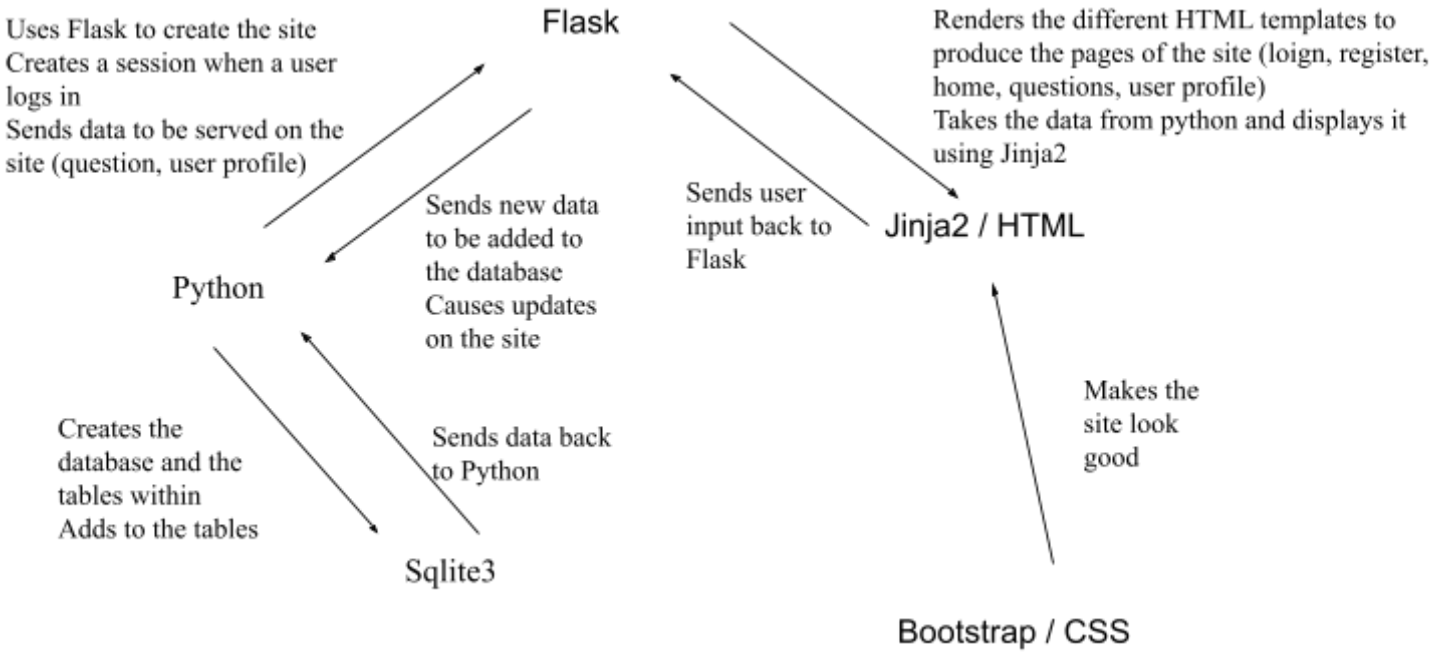
- Will be used to create the HTML templates that can display different trivia questions and the user's profile
- Also displays the collectibles' images and their burning on fire

Bootstrap:

- Will be used to setup the CSS for the site

How The Components Relate

- User answers trivia questions
  - If get it right → receive random collectible (no duplicates)
  - If get it wrong → sees collectible they would have gotten in fire
  - Collectible they get is chosen by random picker
- Account is needed for user to build collection (and thus all the things that require a collection to have, like items, achievements, special collectibles)
  - If logged in, get question right → user obtains collectible
  - If not logged in, user will see collectible (not on fire, will say that user has gotten said collectible) but will not show up in their collection
  - If not signed in, collection page will tell user to please login in order to build a collection
  - Not needed to sign in to answer questions, only needed to keep track collectibles gotten
- Achievements gotten from collecting (based on collection)
  - Results in special collectibles
- Profile keeps track of and shows user's collectibles, items, special collectibles, achievements



Database

- **Users** Table: Table to track usernames and passwords of registered accounts
    - Usernames must be unique, must be alphanumeric and cannot start with a number
    - Password and username must exist

Username (TEXT UNIQUE)	Password (TEXT)

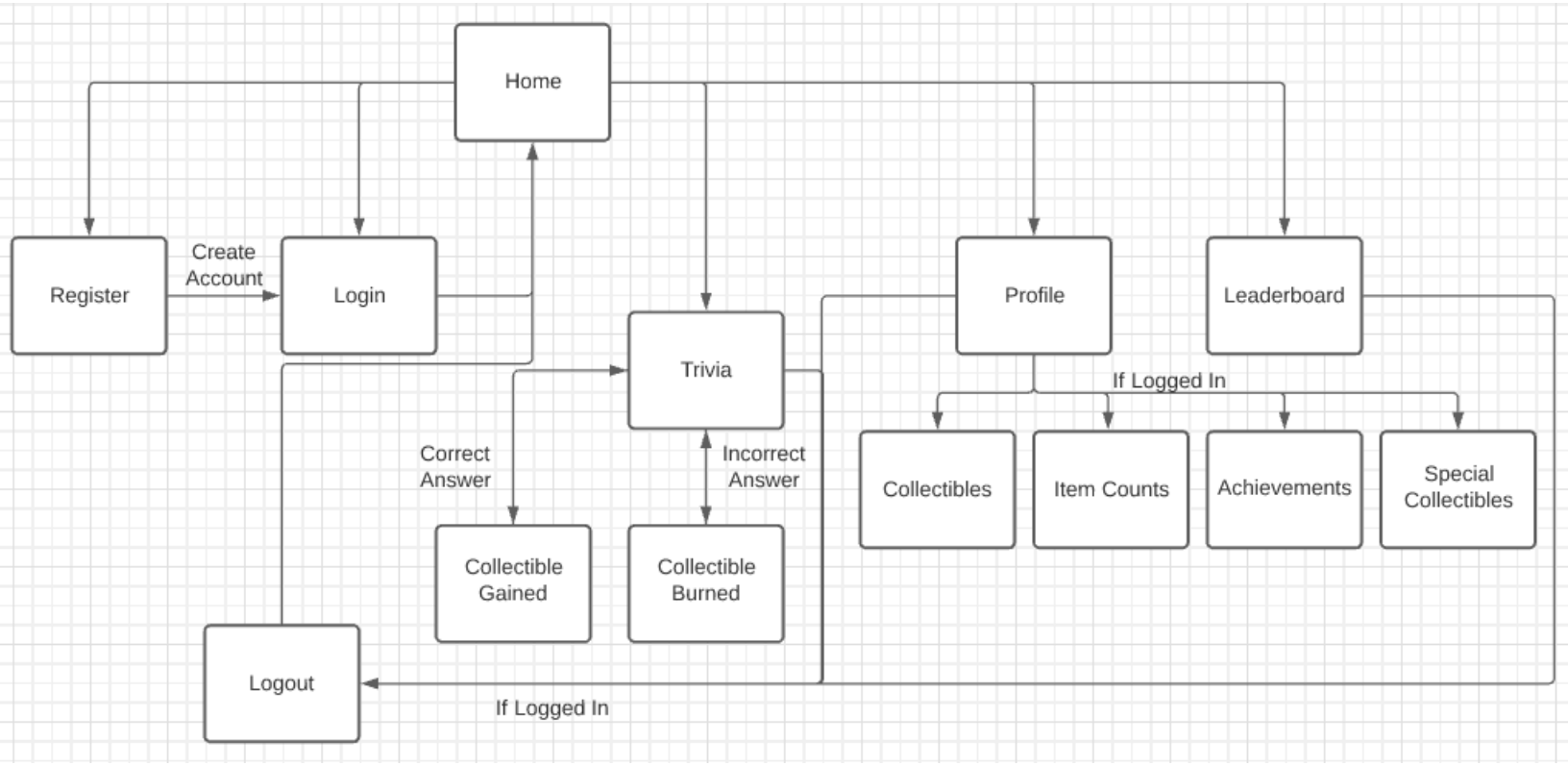
- **User Data** Tables: Individual tables for each user
    - Name for each table would be the username associated with it
    - Type of Object include Collectible, Item, Counter, and Question
    - Number will be used primarily track the number of items a user has (hints and fire extinguishers)
    - Questions is used to keep track of what questions the user has answered to help prevent duplicate questions

Type (TEXT)	Object (TEXT)	Number (INT)

Example:
User1

Item	Hint	2
Item	Fire Extinguisher	2
Counter	Total Right	100
Counter	Goal Right	2
Counter	Total Wrong	75
Counter	Goal Wrong	0
Collectible	URL to Collectible 0	1
Collectible	URL to Collectible 1	1
Question	Question0	
Question	Question1	

Sitemap



https://lucid.app/lucidchart/6623fcfd-1850-4195-bd06-d5f162a1d51f/edit?invitationId=inv_815d74d3-8ea0-44ad-aadb-41a884b35a9f&page=0_0#

Breakdown of Tasks

- Joshua Kloepfer: (Backend) Selecting random questions as well as checking if they are correct or not, Users Table, Trivia Table
- Yaying Liang Li: (Backend) Storing collectibles as well as questions already asked, Collectibles Table, selecting which collectible to give
- Qina Liu (PM): Frontend (How Site Looks), Collection page, burning, login + accounts
- Thomas Yu: Frontend (How Site Looks), achievements, items, special collectibles

APIs

Trivia:

- Open Trivia (https://opentdb.com/)
    - Used for multiple choice
- Jservice (https://jservice.io/)
    - Used for short answer questions

- Trivia API (https://trivia.willfry.co.uk/)
    - Also used for multiple choice questions
- All APIs can:
    - Serve questions based on category
    - Serve multiple questions at once
- Will be used to request the trivia questions to serve to the user

Collectibles:

- Axolotls (https://theaxolotlapi.netlify.app/)
- Cats (https://alexwohlbruck.github.io/cat-facts/docs/)
- Dogs (https://dog.ceo/dog-api/documentation/sub-breed)
- Ducks (https://random-d.uk/api)
- Pets (https://www.petfinder.com/developers/v2/docs/)
- Each API will be used to obtain images that will be used as collectibles for the user to obtain

Framework:

Bootstrap

- Found it to be easier to work with compared to Foundation
- Documentation is easier to navigate for Bootstrap (https://getbootstrap.com/docs/4.0/getting-started/introduction/)

Target Ship Date: Jan 6, 2022

- We would like the due date to be after break rather than right before break, and the day following the first day returning seems conducive for non-stressed-out good code development
- Break good time for dry run too!