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P#02 - The End  
SoftDev1 Pd9  
2020-1-1

## Escape The Room

### Overview:

The overall goal of the project is to create a fun game with a storyline where players attempt to escape the universe Xenus. We will have puzzles like type racer, Galactica, trivia, chance, blackjack, snake and computation problems which will be timed and will only be available once the player completes the puzzles before that one. We will be using *Bootstrap* as our front-end framework because our best front end developers are most familiar with this framework.

### APIs Overview:

1. Diceful API
  - a. Will be used for our chance game
  - b. This API provides dice rolling functionality.
  - c. You can simulate rolling 6-sided or 20-sided die.
  - d. The API will return a JSON object with the results of the roll.
  - e. No keys, no quotas
2. Deck of Cards API
  - a. Will be used for blackjack
  - b. Provides pictures of cards
  - c. No key

### Player Experience:

Users would need to login or signup to be able to play the game. Once the session begins, The user can see what level they are on and can complete challenges to move up levels and play more games. They will have 10 min on each level, and once that 10 min is complete, the browser will automatically redirect them to the start of that level. Once they have completed that level, that information will be stored and can be seen on their profile page.

### In Depth View of Games:

1. Trivia
  - a. The trivia (singular trivium) are three lower Artes Liberales: grammar, logic, and rhetoric. These were the topics of basic education, foundational to the quadrivia of higher education, and hence the material of basic education and an important building block for all undergraduates.
2. Cee-lo

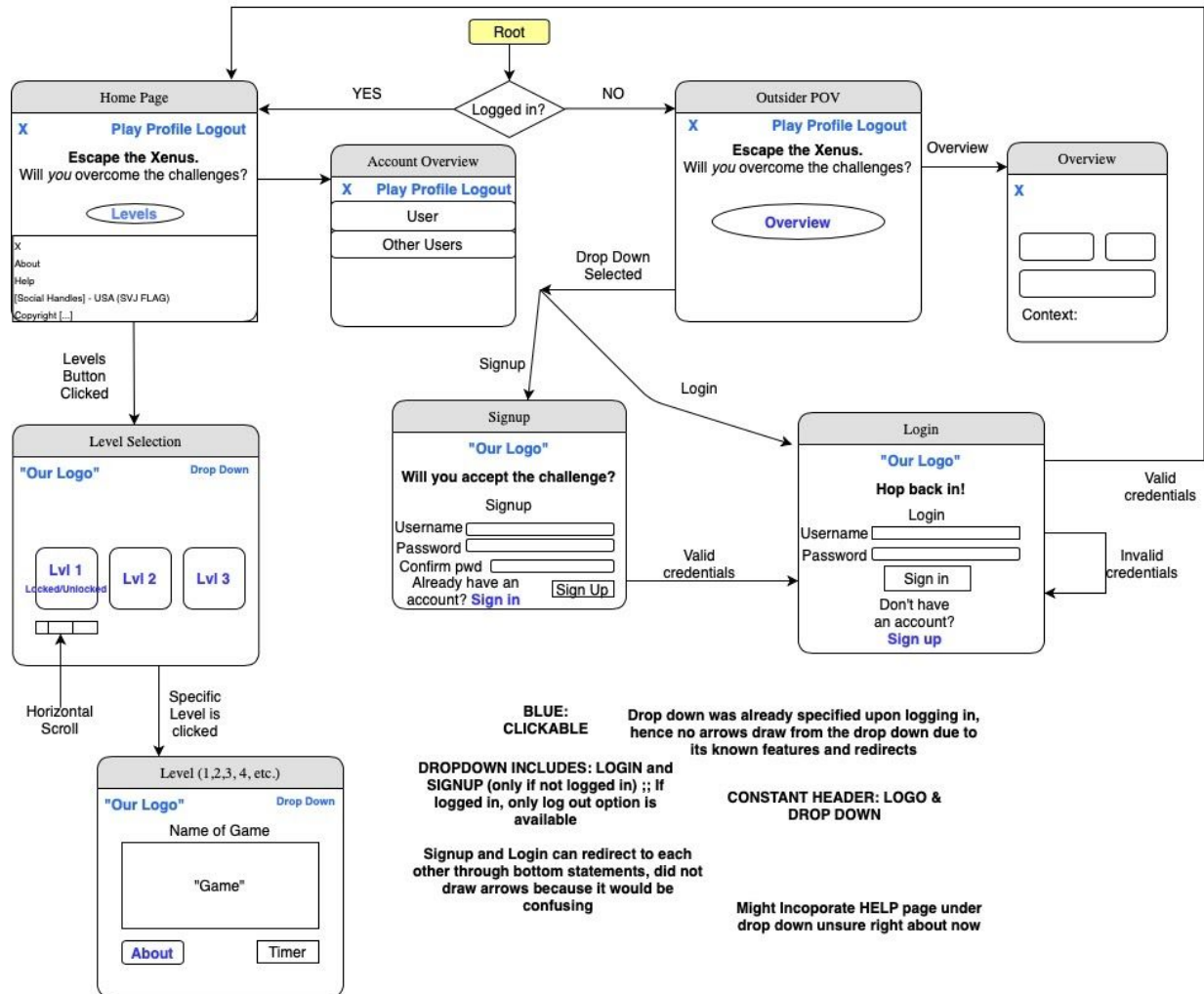
- a. Cee-lo is a gambling game played with three six-sided dice. Besides the winning combinations, all Cee-lo rules include certain rolls that establish a "point," and there are situations where two or more players will roll and compare their points to determine a winner.
- 3. Typeracer
  - a. Players compete by racing miniature cars that advance as the users type short passages that are 20 to 100 words long.
- 4. Snake
  - a. Snake is the common name for a video game concept where the player maneuvers a line which grows in length, with the line itself being a primary obstacle. ... After a variant was preloaded on Nokia mobile phones in 1998, there was a resurgence of interest in the snake concept as it found a larger audience.
- 5. Blackjack
  - a. Blackjack is the American version of a popular global banking game known as Twenty-One, whose relatives include Pontoon and Vingt-et-Un. It is a comparing card game between one or more players and a dealer, where each player in turn competes against the dealer. Players do not compete against each other.

## **Roles:**

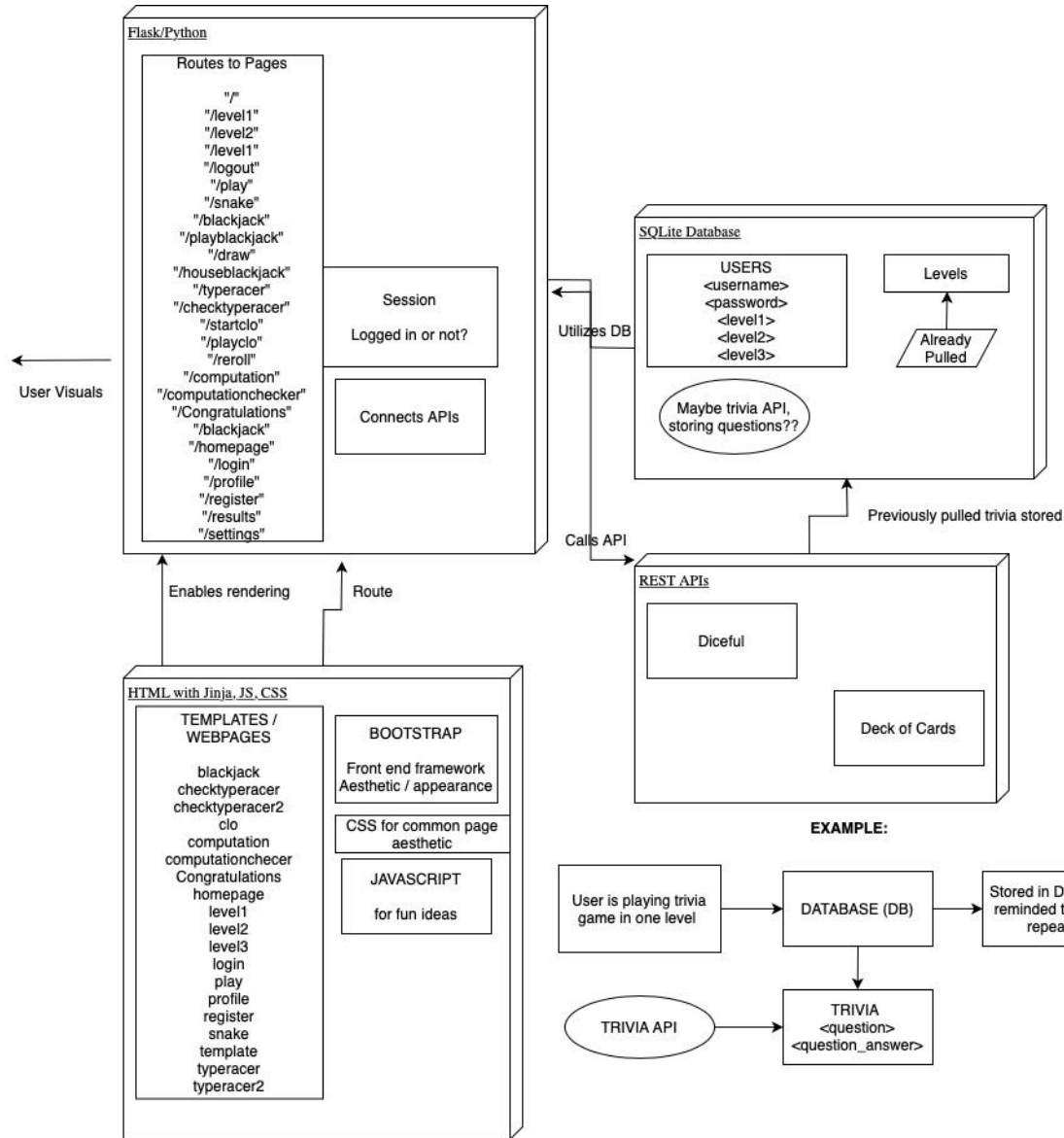
- 1. Henry:
  - a. Project Manager
    - i. Revise design doc
    - ii. Assign tasks
    - iii. Facilitate communication
  - b. Troubleshoot issues and complete minor coding tasks as necessary
- 2. Nahi:
  - a. Front-end
    - i. Templates using Bootstrap
      - 1. Make a template that will store and format the title, headers, images, and forms to be displayed on a given page■ Renders the template for each page requested
    - ii. Create cards for each API used to store in the Knowledge Base
  - b. Game Designer
- 3. Biraj:
  - a. Back-end
    - i. Database Operations Module (Insert to Table, Edit a Row, Create a Table)
    - ii. Facilitate any changes that the user will request, such as adding a new row in a database when the user pulls information from the API to store that information and facilitate faster access in the future
    - iii. Open the url for each API every time a call is made and pull and store needed information from the API in the appropriate database

- b. Game Designer
- 4. Albert:
  - a. Assist Nahi with front-end
    - i. Work on presentation and aesthetics
  - b. APIs
    - i. Obtain access to keys for all APIs
    - ii. Pull relevant information from APIs
    - iii. Add API cards to Google Drive
  - c. Game Designer

**Site Map:**



## Component Map:



Each of these components will be dealt with by a different member of the team, so that in the end they can be pulled together to form the entire website. Communication will be required between SQLite and the API, as well as the HTML and Flask code in order to render templates correctly.

## Database Diagram:

## USER

username primary_key	password	level1	level2	level3
"bertw2002"	"pass123"	1	0	0
"coolusername"	"password123"	2	1	1
"Xenus"	"passsss"	3	1	2

## TRIVIA

questions	one	two	three	four
In base 2, what is $1 + 1$ ?	Two (2)	10	11	01
What is the approximate value of mathematical constant $e$ ?	1.41	3.14	2.72	1.62

## answers

question	answer
In base 2, what is $1 + 1$ ?	10
What is the approximate value of mathematical constant $e$ ?	2.72

ourGame

link	number
<a href="https://deckofcardsapi.com/static/img/2D.png">https://deckofcardsapi.com/static/img/2D.png</a>	2
<a href="https://deckofcardsapi.com/static/img/9H.png">https://deckofcardsapi.com/static/img/9H.png</a>	9

userGame

link	number
<a href="https://deckofcardsapi.com/static/img/5H.png">https://deckofcardsapi.com/static/img/5H.png</a>	5
<a href="https://deckofcardsapi.com/static/img/4S.png">https://deckofcardsapi.com/static/img/4S.png</a>	4

userGame and ourGame is used for blackjack

**References:**

<http://homer.stuy.edu/~thluffy/how2fef/> (check for Bootstrap demos)

<https://www.freelancer.com/articles/web-development/css-tips-and-tricks>

Dommy.html (in repo) (JS)

<https://getbootstrap.com/docs/3.4/examples/navbar-fixed-top/> (TOP NAV BAR FIXED)

<https://www.sitepoint.com/build-javascript-countdown-timer-no-dependencies/>  
(countdown timer)

<https://stackoverflow.com/questions/1527803/generating-random-whole-numbers-in-javascript-in-a-specific-range/1527820#1527820> (random numbers)

<https://gist.github.com/straker/ff00b4b49669ad3dec890306d348adc4> (snake game)