Community Meeting (August 15, 2018): Presentation on GSoC 2018 Projects

Description

Presenters:

- Victor Alagwu: Upgrading AChecker
- Kunal Mohta: Build a service for adaptive content and learning supports
- Jeevan Prakash: Import external data to MyL3
- Ria Bhatia: Inclusively design and build a game for kids
- Christine Hu: Playtown!: Creativity through exploration

Google Summer of Code (GSoC) is a global program focused on bringing more student developers into open source software development. Students work with an open source organization on a 3 month programming project during their break from school.

Video Recording

Notes

Upgrading AChecker

https://gist.github.com/VictorAlagwu/f7c36cc27846bc302ce4e96a394b7a90

https://docs.google.com/presentation/d/1IMMqdA18bHO9RHCdljwj5Kdad77Ik94W0CFkMn-kEyk/edit#slide=id.p

- Upgraded AChecker so that is will be compatible with PHP 7.0+ and MySQL 4.1.13+
  - upgraded MySQL queries to MySQLi
  - several other changes were required
  - updated AChecker to version 1.5

Build a service for adaptive content and learning supports

- Meant to be an easy to use REST API for services like dictionary look-up, translation, spell-check and etc
- main aim was to have a well documented, refactored, easy to understand and test covered api
- Tasks achieved this year
  - Services
    - Dictionary service
      - Used Wikitionary and Oxford
    - NLP (Natural language processing)
      - currently only adding meaningful tags to the text (e.g grammatical constructs)
      - Used Compromise
    - Translation
      - Used Yandex, Google
  - Testing
    - unit tests
    - integration tests
      - test overall API responses
      - used nock to mock servers
    - contract tests
      - to test response structure from third part services
      - used AJV to test JSON schemas
  - Documentation
    - Swagger
    - GitHub repo README
- Remaining work
  - convert existing functions to Kettle Middleware
  - Implement HATEOS for all endpoints
  - Optimize the application
    - reduce number of request by caching data on the server

Import external data to MyL3

- My life long learning lab
  - Data sources

- import weather data
- import map and location
- import Google fit data
- import Facebook status
- Importing data
  - can select which type of data you'd like to import
    - for example from weather can choose the temperature
  - location
    - will reverse geocode the location to transform the longitude and latitude into an address
  - Google fit
- quick notes
  - track your data (enter data
- playground
  - reflect on your data

Inclusively design and build a game for kids

https://medium.com/@riabhatia_73052/gsoc-2018-spifind-music-mania-3e9cc7ec8d5e

- Worked on two games
  - eye gaze
    - control using eye gaze, instead of using a mouse for example.
    - on problem with these games is that most are very simple, don't involve enough exploration and discovery
    - Game SPIFIND
      - would use eye gaze (can optionally use the mouse) to find spiders.
        - the room is blacked out, but where the gaze is there is a spotlight
      - includes gifs as well as text to explain how to play the game
      - other than being fun, it will help the children build up their eye muscles
      - received positive feedback from children playing the game
  - digital literacy for visually impaired children (1 - 2 years old)
    - Music Mania
      - https://build-odeglceahu.now.sh/
      - in this game you can press any key and it will produce a musical sound
      - fun to play music for keys
      - will help the children learn the various key and their locations

Playtown!: Creativity through exploration

- switched optimized game