### **Author**

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### **Description**

To design a login authenticated web application having quiz like environment which calculates & stores the scores of each user after each game (set of 10 multiple choice questions having 4 options each) & also have three difficulty level (easy, medium, hard) options for users to choose from.

### **Technologies used**

* Flask

for running web application

* Flask-SQLAlchemy

for connecting & querying database

* Flask-RESTful

for restful api

* Werkzeug.Exceptions

for HTTP exceptions

* Json

for formatting json

* OS

### **DB Schema Design**

* users

for storing users details

* user\_id (Integer, Primary Key, Not Null, Unique)
* username (String, Not Null, Unique)
* password (String, Not Null)
* score (Integer, Not Null, Default = 0)
* easy

for easy questions deck

* word (String, Primary Key, Not Null, Unique)
* synonyms (String, Not Null)
* medium

for medium questions deck

* word (String, Primary Key, Not Null, Unique)
* synonyms (String, Not Null)
* hard

for hard questions deck

* word (String, Primary Key, Not Null, Unique)
* synonyms (String, Not Null)

### **API Design**

RESTful API is created using Python’s Flask-RESTful library.

APIs are implemented for users & decks

### **Architecture and Features**

* main.py
* Project Report.pdf
* Read\_Me.txt
* applications
* apis.py
* controllers.py
* errors.py
* models.py
* database
* database.sqlite3
* static
* css
* index.css
* js
* quiz.js
* templates
* admin\_dashboard.html
* admin\_login.html
* decks.html
* decks\_level.html
* error.html
* index.html
* play.html
* play\_level.html
* user\_dashboard.html
* user\_login.html
* usres.html
* It has two login options (Administrator & User)
* Administrator Login Password is set to “P@ssw0rd”
* New users can login directly & the password entered will be used for further logins
* Old users have to use their previous password for authentication
* Administrator can view all users with their score & all decks
* User can only play the game
* The game has three difficulty level options (easy, medium, hard)
* Each game has a set of 10 multiple choice questions having 4 options each
* One question will be displayed at a time
* Scores will reflect at the end of game

### **Video**

<https://drive.google.com/drive/folders/1QRjdNslIUDjA4LKNScSpTsVJXTAgaIKW?usp=sharing>