

REPORT

Coursework #2

SUMMARY

Report about a web-app developed using Python-Flask. Platform to learn French.

Carine PIC - 40215333

Advanced Web Technologies

Carine Pic

Napier matriculation number: 40215333

Module: Advanced Web Technologies

Coursework #2

Submitted on Sunday 29th November 2015

A web-app using Python-Flask

Table of contents

Introduction	3
Learning French	4
The quizzes	4
The logged in features	4
Design and architecture	5
Enhancements	6
Critical evaluation	6
Personal evaluation.....	7
Resources and references	7

Introduction

This web-app is a platform to learn French when you are English. The web-app offers the user to learn the basics of French language, and to play quizzes in relation with what they have learnt.

If the user is logged in with the administrator credentials, they are able to add a new quiz, edit or remove the existing quizzes, and add, edit and remove questions into each quiz.

Home Profile (log out)

Learn French with Carine

HOME

BASICS

- Rules for pronunciation
- Basic vocabulary
- How to build a sentence
- Quiz for beginners

VOCABULARY

CULTURE

QUIZ

GAMES

Rules for pronunciation

The alphabet

The French alphabet, like in English, has 26 letters.

To know how to pronounce French words, you have to master the pronunciation of each letter of the alphabet. Let's begin!

A	B	C	D	E	F	G
H	I	J	K	L	M	N
O	P	Q	R	S	T	U
V	W	X	Y	Z		

Accents and cedilla

The French alphabet differs from English because there can be accents on certain letters or a mark like the cedilla. They are used to change the pronunciation or the meaning of the words.

Accents on the letter E

There are four accents: acute (é), grave (è), circumflex (ê) and trema (ë). They indicate different sounds:

é e.g. cinéma	è, ê, ë e.g. crème, fête, Noël
------------------	-----------------------------------

Accents on the letters A, U, O

Accents on these letters can be used in writing to differentiate meaning, even when the pronunciation is the same:

a / à, la / là Voilà	ou / où, sur / sûr Août, ambigu	Ô capitaine, mon capitaine ! (Dead Poets Society), ôter
-------------------------	------------------------------------	---

Learning French

There are a few pages of content that the user can read in order to learn French.

I hadn't enough time to add the content for each page so there are just 3 pages of content.

In the pages, you can listen to the sounds when the feature is available (mainly in the beginning of the "Rules of pronunciation" page)

The quizzes

The user can play a quiz (Quiz for beginners) but they have to be registered and logged in to save their score. The quiz' questions are chosen randomly in the database.

I had a problem trying to implement the quiz' results and hadn't time enough to fix it, so at this time, you can't check your answers...

Logged in features

You can log in as an administrator and be able to **add**, **edit** or **remove** a quiz, and **add**, **edit** or **remove** quiz' questions.

The user name is "admin" and the password is "default".

Design & Architecture

The initialisation of the app, the functions and the routings are in the file "*index.py*". The parameters are stored in the *etc/config.cfg* file.

I have used sqlite3 for the database, so I created a file to store the schema of the database and a function to initialize the database. You can also launch the file "*create_db.py*". The data are stored in *var/data.db*

The templates are in the *templates* folder. I have created a *layout.html* template and all the other templates override it.

I have used Bootstrap for the styles and some customised styles in the file "*static/css/styles.css*".

The URL layout:

- /home
- /login
- /logout
- /register
- /profile
- /manage_quizzes
- /add_quiz
- /edit_quiz
- /remove_quiz
- /add_question
- /show_questions
- /edit_question
- /remove_question
- /rules
- /basic_vocabulary
- /build_sentence
- /quiz_beginners

Enhancements

There are a lot of features that I would add or improve.

- Add all the sounds for each French word
- Improve the design and the display of the examples
- Finish the quiz feature
 - Display the score
 - Display the right and wrong answers after submitting and explain the rules
- Complete the other pages (Vocabulary, Culture...)
- Display quizzes and games in relation with the level of the user
- Improve the user's profile
 - Stats
 - Change the password
 - Delete the account
 - Profile picture
- Offer weekly challenges and general challenge with rankings

Critical evaluation

This web-app using Python-Flask is not as good as the last one. The main code (in index.py) is messy and not well thought, there is also an error in the quiz_beginners' route that I couldn't fix (lack of time).

The features available could be improved by more interaction and more content.

I have a lot of ideas to complete this web-app and make it better, as the feature currently available are not really enough.

I think I failed to answer well the initial demands of the coursework because there are a lot of things that I hadn't implement yet (logs, tests, etc) and I didn't really add something that it was not asked.

Personal evaluation

For this coursework, I didn't have as much time as the first one and I had a loss of motivation to work hard. At the end, I'm really disappointed about my work, which is very weak compared to what I can do.

I was happy to continue my experience with Python but I think it's definitely not a language for me. I'm not comfortable with it (probably because I used to work with PHP for ages) and maybe it's why I lost the motivation to work hard.

As I didn't work really hard for this coursework (forgive me), I have nothing special to say in this part.

Resources and references

All the sounds have been recorded by me (with my voice).

I've used [Bootstrap](#), which is open-source. The code is licensed under MIT (see licence file in the Bootstrap folder).

Unfortunately, I didn't read a lot of thing this time, except some internet forums when I had an error or the python documentation, but nothing really interesting.