Prototype documentation
CodeTrip

Jan 12 2018

CS 446 - Team CodeTrip

Jiajun Zhou
20522165
j86zhou@edu.uwaterloo.ca

Tianrui Ma
20550222
t33ma@edu.uwaterloo.ca

Jiahua Zhu
20474723
j66zhu@edu.uwaterloo.ca

Haolin Wu
20572042
h97wu@edu.uwaterloo.ca

The demo summary should describe the functionality that will be demonstrated highlighting which aspects of the demo are real and which parts are simulated.

- Sidebar
  - Navigate between Course Map, Gist
- App bar
  - Display total stars gained (**simulated**)
- Course Map
  - User can navigate through courses by scrolling
  - User can click on a course to start learning
  - Unattempted courses have their icons shown in grayscale
- Course
  - Support all five type of question
    - Short Answer
    - Drag and Drop
    - Multiple Choice
    - True and False
    - Rearrange
  - User can get hints for each question
  - User can get feedback when the answer is wrong
  - Progress indicator
  - User can return to Course Map at anytime by either pressing the back button on their phone or click 'X' on the top left corner
  - Reward stars upon each courses' completion (**simulated**)
- Gist
  - Displays all knowledge points
  - User can click on a course title to expand the corresponding collection of knowledge points

The status report should describe your current progress on your system, what difficulties you are facing, and a short overview of the next month of development.

Current progress:
Functional: completed all basic functionalities of a course (see previous sections for details) using live data from an in-app SQLite database.
Compiler: we are currently using a web server to compile python inputs, planning on transitioning into a built-in compiler in the upcoming month.

Difficulties:
1. We are unfamiliar with making HTTP requests in Java, and there are limited resources online on this subject
2. Designing meaningful and intuitive questions

TODOs:
1. Optimize course map loading
2. Add ability to reset a question to initial state
3. Add Color & Font for Question instruction's keyword
4. Improve questions quality and quantity
5. Use in-app compiler for python code
6. Improve UI and Icon
7. Add small project

CodeTrip Component diagram

CodeTrip

Android

Home

Java

Course Map

Java

Gist

Java

Achievement

Java

Course

Java

Database

SQLite

Server

Final version will be using a built-in compiler, replacing the current server.

CodeTrip API

Python

Flask

Python