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CS 392 Software Engineering 2

Workshop #2: developing food text classification system

November 20, 2021

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1 Introduction

The purpose of the workshop is to provide the students with the knowledge of currently challenges of software engineering activities and the skills to apply it. The workshop also introduce students to teamwork. Each team consists of 2 to 4 students working on the same system. Team work is mandatory and required.

This workshop consists of four iterations of implementation product (food text labeling predictions). See Deliverables schedule in Section 04.

2 Grading

Your group grade for this workshop will depend on the following:

- The quality of the deliverables as described in **Deliverables schedule section**.
- Your team overall cooperation as well as your **individual contribution** to the team.

3 Topic

This workshop is based on developing a web-based machine learning system for simple text classification. The following steps will show you how to set up a *Node js* server to run the core system of the machine learning (*fasttext* tool for text classification) on input from a user. In order to run the first version of the system you follow the following steps:

1. Download npm: `sudo apt install npm`
2. Create and open project folder: `mkdir [your choice name]`
3. Initialize requirements: `npm init -y`
4. Add `index.html`,`index.js` and `train.txt` in the same folder. [check the supplement materials]
5. Install the Node.js sandbox for the Machine learning algorithm (fasttext): `npm install node-fasttext --save`
6. Install Express: `npm install express --save`
7. Install some `cors` issues: `npm install cors --save`
8. Now if you want to get this sandbox up and running pretty quick you go ahead and use my HTML and J's files (provided on this URL) and once you have done.
9. Run index.js: `node index.js`

4 Deliverables schedule

The following schedule implicitly assumes you will run into many technical difficulties and will often have incorrect/missing or outdated information which will prevent you from preparing the appropriate documentation. However, it is expected from you that you will proactively extract the necessary information about technology you are using, and the results you are coming up with, thus enabling you to meet on time the expectation described below.

Milestone	Due date	Expected progress	Deliverables
Iteration 1, task 1	02 Dec, 2021	• Meet with team members • Setup your development environment requirements (VMs, Node js, Git, etc.).	• Cloned repo in each group individual member • Create Tag for the first codebase • Create your first release (i.e., x.0.0)
Iteration 1, task 2	09 Dec, 2021	• Update UI by adding: show results button, space area to show the classification results "text labels". ** • Add Travois CI to watch your Git actions. **	• List all the features added and explain any fixed issues from the previous version. • Pass/fail label on your GitHub README file. • Create your updated release (i.e., v0.x.0)

** The specifications for this task will be posted on the BR on 29 Nov, 2021.

Note that both the technical content of the GitHub repository, and the documentation style (including quality of writing, commits messages, tests pass, REAME content, etc.) of your project will be taken into consideration when grading the each individual efforts.