

JITI Web App Design Document

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Overview

The goal of this project is to create an interactive web app that utilizes data-driven results from last semester in order to both aid professors in identifying at-risk students, and to empower students with data that can improve their performance in school

Proposed Solution (subject to change)

<https://wireframe.cc/pro/pp/a6e1460e6310625>

Above is a wireframe detailing a proposed version of the web app.

Milestones (Big Picture)

Start Date: January 15, 2020

Milestone 1 – Finish acquiring basic skills needed to begin development: March 3rd, 2020

Milestone 2 – Finish core functionality of web-app with dummy data: March 10th, 2020

Milestone 3 – Integrate web-app with real data and users: April 6th, 2020

Milestone 4 – Finish styling web-app: April 6th, 2020

Milestone 5 – Add additional features

Project Deadlines

3/11 – Presentation 2

4/15 – Final Presentation

4/22 – Peer Evaluations – Final

4/24 – VIP Assessment – Final

Stack Overview

- Python, Dash (HTML / CSS / React / Flask)
- Python for modeling / data-analysis / formatting
- Dash is built on React and Flask, framework which allows for seamless use of Plotly, which works well for our purpose of creating interactive graphs
- Dash uses HTML syntax, need CSS to style pages

Guidelines

- Write “pythonic” code and follow best practices
- Write clear, concise comments and document progress (via VIP journals)
- Communicate with team to stay-on-track
- GIT / version control

Specific Task Timeline

Milestone 2:

- Generate appropriate dummy data given what we have access to
- Finish basic layout of all pages (add images, buttons below images, style pages, etc.)
- Stretch: Make graphs interactive (e.g. sliders, filters, clickable elements)

Milestone 3:

- Get all of our data into correctly formatted pandas data frames
- Replace dummy data with real data (should be straight-forward)
- Integrate login for students / professors (? Needs further discussion)

Milestone 4:

- Make graphs interactive (PRIORITY)
- Finalize layout of pages