Available Team Projects

# Formbar Development

By now, everyone is well-acquainted with the Formbar. What you may not know if that the Formbar is packed with Teacher-only tools and features. Since its inception last year, many teachers and administrators have been asking when they can get their hands on one.

Unfortunately, this project was created out of necessity over a few lunch breaks during Covid by a single developer. The Formbar is riddled with broken and missing features, bugs, and completely lacks any documentation. In its current form, it does not collect all of the data Mr. Smith requires, would be difficult to write third parties applications for, and nearly impossible to use for anyone who is not “tech-savvy”.

### Job Description (what you will be doing)

* Discuss and interpret required features from clients
* Work with other teams to make Formbar features available to them
* Accurately Document features
* Collaborate in a codebase and track bugs
* Code backend and frontend applications

### Required Skills (what you will need to prove to me you can do or learn)

* Document code and usage in **excruciating** detail
* Use github to share/merge code and track bugs
* Code backend software in Python with flask, and SQL
* Code frontend software with Javascript, Jinja2, HTML and CSS
* Code physical features on a Raspberry Pi
* Communicate between applications with REST APIs and Websites

# RPG Maker Websockets Plugin

As some may know, Mr. Smith teaches most of his 9th grade class in RPG Maker MV. RPG Maker can easily load in plugins to add features without any coding knowledge. Mr. Smith requires a plugin for RPG Maker games that allows 9th graders to easily add chat/websocket multiplayer and/or Formbar webockets/API to their game.

### Job Description (what you will be doing)

* Accurately Document features
* Work with REST APIs and websockets to communicate with Formbar

### Required Skills (what you will need to prove to me you can do or learn)

* Code in Javascript to use websockets, frontend features, and the Formbar
* Familiarity and experience with RPG Maker
* Ability to document code and usage

# Grindset Flashcards

Computer Programming requires a lot of practice and memorization. Creating practice material for programming is time-consuming and buying it is expensive. Your team will be creating simple HTML + Javascript tools/games to rapidly practice code snippets. This will start with a standalone Flashcard website with easy flashcard creation. It will expand to mini-quizzes, and drag-and-drop answers. Eventually, this will interface with the Formbar to collect data and reward students for streaks/highscores.

### Job Description (what you will be doing)

* Creating learning aides for students
* Collecting and storing data of usage
* Interacting with the Formbar

### Required Skills (what you will need to prove to me you can do or learn)

* Code front-end features using Javascript, jQuery, and CSS
* Use REST APIs and websockets to communicate with Formbar

# Lattebar Menu

The Spart Inn has a Latte Bar. Each day, a Culinary Instructor must manually send out and email declaring that the bar is open, and what flavors are available. Each order must be emailed back, and orders are tracked on paper. You will be building a website that handles the menu and orders automatically.

### Job Description (what you will be doing)

* Working with clients who are not “tech-savvy” to meet their needs
* Creating an interactive website with server

### Required Skills (what you will need to prove to me you can do or learn)

* HTML, CSS, and Javacript to code front-end features
* Javascript in nodeJS, ExpressJS and EJS
* Using SQL Databases

# Personal Finance Bank

Mr. Gaidos requires a piece of software that tracks “money” in his personal finance class.

### Job Description (what you will be doing)

* Working with clients who are not “tech-savvy” to meet their needs
* Creating an interactive website with server with APIs
* Using student IDs and scanning hardware

### Required Skills (what you will need to prove to me you can do or learn)

* HTML, CSS, and Javacript to code front-end features
* Javascript in nodeJS, ExpressJS and EJS
* Using SQL Databases

# Caught Being a Spartan

As we all know, the “Caught Being a Spartan” program is defunct. It is too difficult to reward students for good behavior at a moment’s notice. Your team will be developing an application that teachers can use to reward students, probably by a phone-based web-application. You will also develop a website to track these points and allow administrators to create/give out rewards.

### Job Description (what you will be doing)

* Working with clients who are not “tech-savvy” to meet their needs
* Creating an interactive website with server with APIs
* Using student IDs, scanning hardware and developing for mobile platforms

### Required Skills (what you will need to prove to me you can do or learn)

* HTML, CSS, and Javacript to code front-end features for mobile
* Javascript in nodeJS, ExpressJS and EJS
* Using SQL Databases
* Using scanners or NFC
* Using mobile camera hardware

# Lateral File Organizer

You may not know this, but the file server for this school is an absolute mess. It is very difficult to find anything you need in what is essentially just a giant flash drive on the network. You will be developing a piece of software that can organize hundreds of documents by “tags”, such as school year, category, and filetype. Users will be able to rapidly search for a document by descriptive “tags”. Users will also be able to upload files as “revisions” or “new versions” and rapidly tag them with related “tags”.

### Job Description (what you will be doing)

* Working with clients who are not “tech-savvy” to meet their needs
* Creating an interactive website with server with APIs
* Organizing data by qualities
* Searching and matching data by qualities
* Anticipating user needs

### Required Skills (what you will need to prove to me you can do or learn)

* HTML, CSS, and Javacript to code front-end features for mobile
* Javascript in nodeJS, ExpressJS and EJS
* Expertise with SQL databases