Form Buster
Team Members:
- Daniel Acosta (dacosta2022@my.fit.edu)
- Christopher Demuro (cdemuro2022@my.fit.edu)
- Alex Merino (amerino2022@my.fit.edu)
- Luka Miodrag Starcevic (lstarcevic2022@my.fit.edu)

Faculty Advisor: Phillip Bernhard (pbernhar@fit.edu)

Client: Phillip Bernhard (pbernhar@fit.edu)

Date(s) to Meet with Client:
- 1/24/25

Goal and Motivation:
The current PDF form system used at FIT is slow and does not indicate any progress to students, as all communication must be done explicitly through emails. This system has been disliked by students and advisors equally since its inception in 2018. With this proposed web application, students will be able to better track their forms' progress, and administrators will be able to easily approve/modify forms all in one place. This new system will increase the efficiency of administrators while also improving the user experience for students.

Approach:
Web-based Form Tracking for Students
Students can sign in and choose a form to complete and fill out the information needed. Using their profile information, the form will auto-complete fields such as name, student ID, etc. After completing a form, students will be able to track the progress of the form. Depending on which form was filled out, the student will be given a specified list of persons the form will be given to for processing.

Creation and Management of Registrar Forms
Administrators, such as the registrar, can create new forms that students can complete. Administrators will be able to use the form creator, which gives full control over the form fields and user types the form will be sent to after initialization. They will also be able to modify already existing forms and save drafts or publish them. When a form becomes obsolete, the Admins will be able to unpublish or delete the form.

Email Notifications
The application will automatically notify a student when they are eligible to submit certain forms, such as graduation petitions or CLEP exam eligibility information. Students will also get notified when their form is modified, accepted, denied, or completed by any party. Advisors and staff will get recurring notifications when forms are sent to them to be completed and signed.

Novel Features/Functionalities:
There are three user types: **Students, Advisors/Professors, and Staff/Moderators**
- Students can fill out and submit a course registration form online
  - Normally, students have to email PDF files to advisors
- Students can track the progress of completed forms
  - Currently, there is no way for students to track the progress of their PDFs
- Administrators can update and modify forms online
  - Currently have to modify PDFs and manually publish/email the changes to other administrators

Algorithms and Tools:
For the web app's development, we will be using the MERN stack, which includes MongoDB, Express, React, Node, HTML, and CSS. These languages provide all of the frontend and backend functionality that is required for the project.

Technical Challenges:
- Most of the team is unfamiliar with some aspects of the MERN stack, primarily MongoDB, Express, and React/Node.
- We will need to acquire a server to store information in our database.
- Finding another server to host the web application to be viewed on the internet
-

Milestone 1 (Feb 24):
- Design website frontend skeleton UI
- Acquire database, find a server to host the web application with backend support
- Develop data structure base for forms
- Create Requirement Document
- Create Design Document
- Create Test Plan
-

Milestone 2 (Mar 26):
- Implement routing between pages on the web app
- Design/Implement basic form editor
- Implement different User views for Students, Advisors, Staff
- Add profiles and store user profile data
- Add a simple form for class registration
-

Milestone 3 (Apr 21):
- Improve design/implementation of form editor
- Continue addition of sample forms
- Implement form tracking logic/UI
- Implement site mailbox/notification system
- Implement email notifications

Milestone 1 Task Matrix:

Task	Daniel	Chris	Alex	Luka
Website frontend	mobile	N/A	web	N/A
Database/ hosting server	N/A	search/acquisition	N/A	N/A
Develop Data Structures	design	design	design	design/code
Requirement Document	Write 25%	Write 25%	Write 25%	Write 25%
Design Document	Write 25%	Write 25%	Write 25%	Write 25%
Test Plan	Write 25%	Write 25%	Write 25%	Write 25%

Approval from Faculty Advisor:

"I have discussed with the team and I approve this project plan. I will evaluate the progress and assign a grade for each of the three milestones."

Signature: _____ Date: _____