# Goal

Our Face Recognition Project is going to revolutionize the way instructors manage their class. The instructor will be able to log into to our application, create and manage their class, take a picture of their class, and then will be presented information about the people in the picture. Creating and managing a class will include the ability to create a new student in a class, update information about a particular student, and upload a picture of the student. The instructor will have the ability to create multiple classes. Information presented to the instructor will include, but is not limited to, name, classification, major, and notes about the student. Names will be overlaid on the image, with information presented below.

# Team Composition

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| --- | --- |
| Role | Role |
| Project Manager | Jack Meyer |
| Systems Engineer | Anthony House |
| Architect and Developer | Nischay Venkatram |
| Tester and Integrator | Ian Harris |

Although these roles are clearly defined, it is expected that each team member will contribute in another place when deemed necessary.

# Costs

We approximate that this project will require 20+ hours per person, coming to a total of 80+ hours of work. Outside of the salary of each developer, you can expect no additional costs. We plan on utilizing our own apartments and open spaces to complete work, therefore there will be no costs for space and work areas. We are using open source technologies, which in return means no cost for using third party resources. Most of the 80+ hours are going to be spent researching each individual framework and setting up the project. We predict once the research and set up is completed, development work will flow smoothly.

# Requirements

Our project will have the following requirements:

* Be able to take a picture and separate the faces that are in the picture
* Compare the faces against the pictures which the instructor uploaded via the manage class screen
* Show the image to the instructor with names of the students by their faces
* The program will run via the instructor’s computer
* Unidentified people will be asked to be saved to the database for future reference

# Risks

One issue that can be seen right from the start is the integration of our open source library for Facial Recognition, Open CV. There could be unforeseen integration issues that appear throughout the course of development. This is a significant risk because it is the basis of our project. To mitigate this risk, we will continue to do research as the project goes along. Another issue is the lack of knowledge of one of the technologies we will be using, Angular 2. Our developers have limited knowledge of Angular 2. If this issues manifests into a large issue, we will move to do a different front end framework which our developers have more experience with. Although the limited lack of knowledge, we believe that Angular 2 and Open CV will be the best tools to complete the project. After 3 or 4 days, if either framework is not working out, we will migrate to using another framework with similar capabilities. We also acknowledge the risks of using two new frameworks, but we believe we have skills and know-how to implement Angular 2 and OpenCV.

# Project Tracking and Management

The completion of our project can be tracked on our issue tracking system. We will be using GitHub issues and pull requests to track the work being done to the project. Through GitHub issues, you can clearly see the progress of the project. It is very easy to search by issue type, when it was created, and who is working on the issue. It is also very easy to add comments to the issues to further discussion about it.

# Timeline

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| --- | --- |
| Deliverable | Date |
| Project Proposal | September 1st |
| Initial Project Setup | September 3rd |
| Login/Logout/Sign up | September 5th |
| Create Class | September 7th |
| Mange Class | September 9th |
| Integrate OpenCV | September 12th |
| Deliver Project | September 15th |