

## Personas

- 1) Professor Kuilin Zhang is teaching the course and will use the Instructor View of the app. He will need to be an expert in using the app from both the professor view as well as student view.
- 2) Student 1, Gerald, is a Civil Engineering Major who is very technically literate. He has a deep understanding of the app and can use it without issues.
- 3) Student 2, Alfred, is primarily a tablet user and will be using a mobile version of the application. He is comfortable with technology, but may have some issues.
- 4) Student 3, Norval, is a humanities major and is very technically illiterate. The only device he has is a smart phone which he only uses for texting and calling. He will have plenty of issues with the app.

## Use Scenarios

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- 1) Professor - Professor will be able to start a new session from the home page, creating a new name for the class session. The professor will then send invites to the students in the class. After all students have joined the first iteration can take place. The professor will then wait for all students to input their maps and move to the next iteration. At his discretion or when a 'nash equilibrium' is reached the 'game' can be ended and saved.
- 2) Student User - User will get an invite from the professor with a link to the website. They will be asked to log in with their tech email and be assigned an identification number and [origin,destination] tuple. When the professor chooses for the student to input their map they will choose the nodes and vectors they wish to 'travel' along. While not their turn there will be a current display of the map that is updated after each student inputs their route. After the game has been ended and saved by the instructor, the student will be kicked out of the app.

# Stakeholders

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## Students using the App (user)

The students are stakeholders in the app because they'll be the ones actually using it in class. They are a part of the system in the article in the onion article.

## Dr. Kuilin Zhang (user)

Prof Zhang is the scientist for this project and is one of the primary user stakeholders. The app that we create will be used as a teaching aid for his classes. Prof. Zhang will likely be the most frequent repeated user of our app and he therefore holds a significant stake in the success of the project. Dr. Zhang is also a part of the system in the article in the onion article.

## All members of Team Traffic

We're obviously stakeholders in our own app because we're designing and creating the app itself. We're heavily invested in the app's success. We are a part of the containing system in the article.

## Dr. Pastel and Prof. Kitalong

Prof. Pastel and Prof. Kitalong are the instructors teaching the course and are held partially responsible by the University for the success of their respective courses. Our app is one of six being developed this semester, so they hold their own stake in the success of our app. If things do not go well for our team and our app, this will reflect poorly on the course and somewhat on them as instructors. Professor Pastel and Kitalong are a part of the containing system in the article.

## Michigan Tech University

Michigan Tech is a stakeholder because it is hosted on Michigan Tech Property and uses Michigan Tech's resources and utilities. Additionally, the project may be used for accreditation to evaluate what students learned during the course. Michigan Tech is a part of the containing system in the article.

## Other Professors/Teachers wanting to present traffic optimization problems

If the app is successful enough, it may spread and be used as a teaching aid by other instructors at other universities. These would be tier 3 stakeholders. A design catered to these stakeholders would be the ability to import and use maps/graphs of areas surrounding the educational institutions that this app is used at.