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Murali
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Team Communication

For this course, our team will be collaborating through the means of Google Docs, Discord, text messaging (to coordinate in-person meetups), and of course, in-person meetups as well. For this first part of the project, we met in-person at the library to discuss ideas for the system itself and for roles that each of us will take on in this project.

Initially, our roles will be slightly more broad and will be refined as the semester goes on and we discover each of our strengths and weaknesses regarding these individual projects. But for now, we have decided that Reagan will take the lead on the Executive Overview section of the Project Description. Jackson will write the business case for why the system is necessary. Jack will describe the stakeholders and the benefits they can expect to receive from the system. Our unofficial regular meeting date as of now is every Monday at 5:30. If one member is unable to meet in-person at that time on any given week, they will join the group on Discord as soon as they are able.

Executive Overview

This overview is a summary of this group's planning document for a computer system to optimize efficacy and efficiency of a company-wide transit system for travel between campuses of the company as well as employees homes. Our system is designed to minimize the number of times that employees have to make these commutes on their own and help them take full advantage of the company's available resources. An additional benefit of this system is that since less employees will be commuting in their own cars individually, we will reduce the company's carbon footprint by carpooling to different locations when possible. And finally, we hope that this system will optimize company transit in such a way that maximizes convenience and satisfaction for employees, producing a more positive company atmosphere in general. Theoretically, this positive attitude shift in the company should trickle down and produce a better experience for its customers, as well.

The implementation of this system requires a lot of planning, interviewing, design, and modeling. These are all things that this team is prepared to do. The system will require a heavy amount of scheduling and maintenance once it is put into place, as well. All of these issues and more will be addressed in this document as well as in future planning and design documents.

A further explanation of the business side of this system and why we think it should be implemented is in the following section of this report labeled "Business Case". A further explanation of who the stakeholders affected by this system are and questions that we intend to ask them can be found in the sections labeled "Stakeholders & Benefits" and "Stakeholder Questions", respectively.

Business Case

The case for this new system can be built using several categories: efficiency, customer and employee satisfaction, and environmental responsibility.

The first case to be made for the necessity of the MCSTS is the improvements to the efficiency of the campus. There are countless factors involved with transportation that can delay or stop important personnel from arriving to their designated locations on time. An executive's car could break down, an event planner's only route could have detours or an employee could get rear ended on the way to work. Individual transportation has too many risks that can lead to the cancellation of meetings with fellow employees or clients which in turn leads to wasted money, time, and customer satisfaction. A standardized transport removes these problems by providing a safe and consistent method of getting all these people to campus, despite any personal differences between them.

The second case is the satisfaction of your customers and employees. Most employees will be overjoyed to hear that there is a new transportation system to get them to work. Employees will appreciate the MCSTS's ability to save them money on their personal vehicles and save time through the transport's consistent timing and reliability.

The last case to be made is in environmental responsibility. All of the staff heading to the campus from all around using their own vehicles is a huge source of pollution and fossil fuel use that could be completely avoided. Each of these vehicles belonging to the staff is polluting the environment with its emission every single time it is driven to campus and back; for the staff that lives farther away, the emissions are even greater per trip. Like any self-respecting business, you cannot sit by while the people on your payroll make careless mistakes that could greatly affect future generations. The MCSTS could drastically reduce carbon emissions by having most of these many environment-polluting commutes replaced by a few MCSTS vehicles carrying many of the staff.

With these improvements, in addition to the benefits already discussed, the company could make a big marketing push about how much they do to reduce environmental damage on every single level of their operation, emphasizing transportation. This would increase the company's reputation, incentivizing environmentally conscious customers to pick your business over less thoughtful ones.

Stakeholders & Benefits

Company Administration, those who contacted us requesting the Multi-Campus Shared Transportation System, will see a decrease in costs regarding the reimbursement of employees for individual travel costs. Company meetings both with clients and fellow employees across multiple campuses will become more predictable and reliable. This will allow for more business to be conducted that would have otherwise been lost to inconsistent meeting schedules. Company transportation employees will work more as dependency on company transport increases. This will increase their value as assets to the company. Transport workers will no longer be paid to do seemingly nothing. Time management and company efficiency in regards to communication and travel will increase, allowing for more work to be done and consequently more business to be conducted. The company's carbon footprint will decrease as traveling employees use company transport over individual vehicles when traveling to separate campuses.

Employees who find themselves frequently traveling will see a decrease in their personal spending on work travel costs. They will no longer have to wait to be reimbursed or worry about the hidden costs they may not be getting returns on, such as personal vehicle depreciation. Should there be unexpected travel delays that cause meetings to have to be rescheduled or canceled, employees will not be held nearly as accountable should they be using shared company transport. An added benefit being that if an employee need to make calls or do work during the period of time it takes for them to travel from one campus to another they now have gained the ability to do that on company transport. Employees who do not find themselves traveling and have meetings with employees coming from other company campuses will have their daily frustrations lessened. They will have a better idea of why a colleague may be running late as communication will be easier (and safer) since the individual will not be the one driving. Schedules will be revised and updated faster - allowing them to be more able to accept meetings with other colleagues or clients should the original person not make it. Employees can also rest easy knowing their use of company transport decreases overall pollution to the environment.

Secretaries and those in charge of scheduling employees' meetings both with one another and with clients will find that they will be kept more up to date in regards to the likelihood that company transport is delayed. This grants them the ability to adjust their scheduling at an earlier point in time - allowing for more convenient rescheduling options. Daily frustration and stress will decrease.

Company drivers will find themselves having more hours. Should they have hourly wages this will increase their overall earnings. Drivers will be aware of when they are needed, when they will be departing and when they should be arriving, how many people they will be transporting, and which company campus they will be going to. They will receive better information and be made more aware of scheduling. This will decrease stress and boredom.

The accounting department of the company will find they have less information to keep up with regarding employee travel. Instead of having to keep track of a huge number of

individual costs to eventually reimburse, they will only deal with a small, manageable number. Tracking costs for company vehicles such as buses and shuttles - their maintenance, gas, etcetera - is much easier to track and more reliable that the many numbers given by a huge amount of employees. The system will allow for the efficient gathering and display of such information - improving the department's ability to adjust the company budget as needed.

The IT departments of the many campuses of the company will be provided with a system that they can easily implement with their current software and hardware. They will be provided with the means to monitor and adjust the system - should company administration request it - as well as the knowledge that the system is the same across all campuses. There is no need to worry about having to reconfigure something because the software on one campus is different than another.

Stakeholder Questions

Company Administration:

- **What is your company - are you more oriented towards a university or a general corporation?**
- **What is your budget?**
- **Do you have a preference for how the interface is designed - would you like the scheduling for campus to campus travel to be more client oriented (custom) or consistent (scheduled)?**
- **Do you want the campus to campus travel set-up to be the same as the employee home to campus travel set-up?**
- **How detail oriented do you want this system to be?**
- **Do you want a general system like a city bus schedule or do you want one that requires an employee to make some sort of notification that they are planning on using company transport at a specific time and keep track of that?**
- **If yes to the above question: Would you like to implement a notification system for when an employee does not arrive for transport on multiple occasions?**
- **Are we asking you the right questions or have we taken the wrong direction?**
- **What do you have in mind overall for your system? Do you already have some ideas?**
- **How many company vehicles are you thinking of using in relation to the number of employees that you believe would use company transportation?**
- **Would you like the system to implement a driver rotation - such that it is also known what driver is using which vehicle and keeps track of the consistency of that driver being on time or late?**
- **How environmentally conscious would you like this system to be?**
- **Would you like a mobile app that works with your software?**
- **Is there any software that you are currently using that you really like the user interface of, and if so would you want something similar?**
- **What are your priorities for the system in regards to its purpose & goals?**

Employees:

- **How frequently do you travel between campuses?**
- **How many miles do you typically travel between campuses per year?**
- **How much money do you estimate you spend on gas making the trips you just mentioned?**
- **What time during the day do you typically need to leave to go to another campus?**
- **Would you prefer a way to request a specific block of time for your meetings or to have a consistent schedule of company transport that you can build your meetings around?**

- **How much time does it normally take you to travel between campuses?**
- **How much time does it normally take you to travel from home to work?**
- **Do other employees live nearby where you live?**
- **If you were creating this system, what would you want in it?**
- **What would you say your biggest problem is when it comes to driving your own vehicle both to work from home as well as to other company campuses?**
- **Do you have any concerns about using company transport?**
- **Is there anything you can think of that would make this system more useful than other public transport systems?**
- **Would you like a mobile app that allows you to regularly see updated company transport schedules as well as notifies you when there are delays?**
- **Would you want to be able to provide feedback regularly regarding the features of this app?**
- **Are you in favor of the positive environmental impact this program will have?**

Secretaries/Scheduling:

- **How much do unexpected individual travel delays impact company scheduling?**
- **What type of interface would be most effective for providing you with the information you need to adjust company meetings?**
- **How much time ahead do you prefer a warning of travel delay such that you can reschedule meetings effectively?**
- **Would you want the system to be able to be integrated with the calendar applications you may be using?**
- **How much late time is allowed for activities?**
- **Would a tracking system on the transports allow you to schedule better around incidents?**
- **What information do you need to help you change or alter schedules if an unexpected event were to happen?**
- **How much time do you estimate it will take you to make/maintain these schedules weekly?**
- **Does this time commitment fit into your current work week?**
- **Are there times of the day you would say are more busy than others?**

Drivers of Company Transport:

- **What user interface would be best for you to know when your drives are scheduled?**
- **Would an electronic way of informing a delay be better or would you calling the campus site when you can judge there be a delay be better?**
- **Would a mobile app compatible with this system be something you would want?**
- **Are you comfortable with using a GPS?**
- **What would be the safest way to provide you with directions?**

- **Would you want to be able to provide feedback regularly regarding the features of this app and system?**
- **Would weather updates be something you would like the system to provide for you?**
- **Would alternate routes that adjust to traffic be something you would like the system to suggest or would that be difficult due to the size/nature of the vehicles?**
- **Would you prefer the routes you take remain consistent?**
- **Would you say the vehicle you regularly drive has limitations in regards to what roads it can take?**
- **Do you have any suggestions on improving the safety aspect of this system?**

Accountants/Financial Department:

- **How much money is spent on reimbursing employees for personal vehicle travel?**
- **How much money can be devoted to this project?**
- **What methods do you believe our system could implement that would decrease costs hidden within company vehicle transport?**
- **How would you want gas and vehicle depreciation costs for company vehicles to be tracked?**
- **Do you have any statistics you would like the system to track that we have not mentioned?**
- **How would you want any financially relevant data collected by the system to be displayed to you?**
- **Do you have any ideas for the system?**
- **Are the questions we are asking things that concern you or do they concern company administration?**
- **Would you like to be able to provide feedback regarding the efficiency of this system and its ability to fulfill your needs?**
- **Have the questions we have asked you been relevant to what you would want out of this system and if not what would you rather we asked?**

IT Departments:

- **Do you have any experience working on a transportation network?**
- **Is there a way to establish reliable electronic communication between the other company sites already such as a company wide network?**
- **Should the drivers require electronic guidance systems could you maintain them?**
- **Would connecting the system to company networks be a wise decision - are the networks fast and reliable enough?**
- **If there was a power outage on one campus would there be a way to have the system remain unaffected for the other campuses?**
- **Are the questions we are asking things that concern you or do they concern company administration?**

- **Are you capable of placing electronic tracking devices in the buses for employees to track the locations of the buses in a mobile app?**
- **Could said mobile app allow the employees to choose which bus routes they would like to see on the screen at any given time?**
- **Are you capable of integrating employee authentication systems with the system?**
- **How dependent on already established company software systems would you say our proposed system would be and how would you recommend we integrate the project with those systems effectively?**
- **Do you have any ideas for the system?**
- **Are there any aspects of your company's software/hardware that concern you when regarding this system?**
- **If yes to the above question: What suggestions do you have that would help us to relieve those concerns?**

Team Member Contributions

At the start of this project, we attempted to evenly split up duties amongst our team members in order to maximize the efficiency and speed of our work. Then, the plan was for each member to read over the other members' contributions to proofread for grammatical errors, revise it so that the report has a good and easy-to-read flow, and make sure we're all thinking about the system in a cohesive way.

The duties assigned were as follows: Reagan was to write the executive overview, Jackson was to write the business case, and Jack came up with the stakeholders affected by the system. Then all of us would come together to come up with the interview questions that we would ask each stakeholder.

These duties were fulfilled as dictated. Each team member contributed at least some amount to the interview questions, though Jack wrote the majority of them. All reviewed them - checking for relevancy and consistency. Reagan and Jack revised the interview questions. Jack made grammatical and word choice edits where needed throughout the document.

Regarding communication about ten text conversations were had, Jack initiating about seven and Reagan initiating about three. All members responded. A discord was set up and created with one conversation initiated by Jack and responded to by Reagan consistently. The in-person meeting had all three group members attending. All three spoke and contributed.

Jack's strengths and areas for improvement:

Jack did a great job initiating conversations and making sure this project was a priority for each member. He was serious about his work and about making it the best it could be.

Reagan's strengths and areas for improvement:

Reagan did an excellent job of taking responsibility for his work and while he completed his section later on in the project, he did it well. He responded to messages consistently and contributed to group sections. Starting earlier on his section of work for future projects would be the only area of improvement suggested.

Jackson's strengths and areas for improvement:

Jackson did his individual section of work very well and very quickly. After that, though, he could have communicated more than he did and could have contributed to the group sections a bit more.