Project Briefing

Goals and Impact

- Deciding which college to attend can be one of the most challenging decisions anyone might have to make. We plan to make this decision as informed as possible by giving prospective students an authentic experience and answering any questions they may have truthfully. In the short term we plan to focus on students looking to learn more about and tour the University of Michigan but in the future we want to expand our tour guide base to other schools. Additionally, we want to include graduate students and schools in our database, but that is a longer-term goal. In the short term our project will affect high school students and their parents who are interested in learning more about University of Michigan and its ins and outs. Our main "competitor" or reason for starting this project is the UofM tour guides that walk big groups of prospective students around campus and answer questions. Our tour will be much more personalized, with students who are ideally in their interested major, in potential clubs and extracurricular organizations. We will evaluate the success of our project by how many students we are able to assist. The more students who learn more about UofM the better our website is doing. A successful project will consist of many tour guides in our database providing applicable information to the prospective students. They will learn as much as the need to in order to make an informed decision about whether they want to attend UofM.

Background Information

- Our project will be a simple website very similar to cameo.com. Developing the interface should be mostly straightforward with a student and tour guide interface allowing seamless meetups and tours. The hardest part will be tour guide outreach and advertising our product to prospective students. A solution for this that we have contemplated is reaching out to our local communities with the hope of encouraging them to sign up if they are interested in attending UofM. In order to encourage students to sign up to be a tour guide we might introduce a money incentive for their time. Building the payment system and setting up bank accounts / ways to forward the payment through our website might be a technological hurdle we encounter.

Team Members

- Our team consists of three people so we will be fairly fluid in the ways we help out. Us three have taken many classes together and have pretty similar strengths but in our management process we have tried to maximize the skills that we have learned through summer internships and projects that we have implemented on our own. All three of us will have the same amount of say but when it comes to dividing up work we will try to stay within our strengths. We have chosen this organizational structure because we are

very familiar with each other and know how to work well with one another. If problems do arise and a structure has to be implemented, James will take charge and start assigning tasks. At the moment we believe we have the majority of knowledge we will need but hurdles may come up as we keep working.

- James Spillmann
  - Major: Computer Science and Cognitive Science
  - Strengths: Interface design, photoshop, advertising
- Colin Brosnan
  - Major: Computer Science
  - Strengths: Website implementation, website hosting, domain rights, documents and legal aspects for creating a business and handling revenue
- Rohan Saha
  - Major: Computer Science and Data Science
  - Strengths: Website implementation, website security, team management, agile programming

Project Management Strategy
- All three of us have been on project teams at our respective summer internships so we are familiar how milestones work and what it takes to build something from the group up. We will communicate through text and GitHub, both of which we are familiar with. Trello is a program that Rohan has used before and is interested in implementing it for our project. Using this we will be able to see what tasks have been completed and what needs to be done next. Additionally, we plan to start out with bi-weekly meetings and if we need more we'll move it to weekly. If the semester is moving too fast and we start falling behind, Rohan will be responsible for letting the team know our progress is not good enough and will assign new deadlines that will allow us to finish the project on time.

Project Management Plan & Milestones

Phase 1 - In this phase we will be doing research on what the typical highschool student looks for when picking a college. We would not only try and understand what information will help them but also look at resources that former applicants wish they had when trying to decide on a college. In order to gain a better understanding, we will interview and talk with not only current high school students, but possibly also college freshmen that have recently gone through the process of deciding between colleges.
Complete Phase - 10/7/2022

Phase 2 - After learning about the resources prospective students would want and need when deciding a college, we will begin listing and figuring out what features we would like to have on

our website. We will also begin to familiarize ourselves with possible programs and coding languages that might be useful for our application.
Complete Phase - 10/14/2022

Phase 3 - During this phase we will begin doing a high level implementation of our website. This will mainly consist of us working on getting the website up and running before we add any features for our application.
Complete Phase - 10/21/2022

Phase 4 - This will be our most extensive phase as we will integrate our application of matching prospective students with tour guides. This will most likely be the most challenging aspect of our website to implement. There will be three main parts of this application. The first part will be designing a form of some sort where prospective students can fill out what interests, goals, and extracurricular activities they are aspiring to do in college. The second part will be a form for potential tour guides, where they can also fill out what they are involved with on campus. The third and possibly most challenging part will be to implement a matching algorithm that will match prospective students and tour guides with similar interests. Ideally, they will be able to meet and discuss their college experience and life in college, as well as give them advice.
Complete Phase - 11/4/2022

Phase 5 - In this phase we will work on testing this application and fixing any potential bugs in our application. We will not only manually test it ourselves, but try to find prospective students and tour guides to use the website in order to make sure it is user friendly. If any issues occur, we fix the problem whether that be a new format/design or finding bugs in our program.
Complete Phase 11/11/2022

Phase 6 - In this phase we will begin to add smaller applications to our website that may be useful for prospective students and tour guides. This can include a virtual tour, payment method for tour guide, etc.

Phase 7 - In this phase we will begin overall testing of our website. Again we will be testing with actual people who are both prospective students and prospective tour guides. During the testing phase we will make any necessary changes to our website.

Strategic Milestones:
User Requirements - Complete by 10/7/2022
Completion of Rough, Preliminary or Conceptual Solution - Complete by 10/21/2022
Completion of Minimum Requirement Deliverable - Complete by 11/11/2022
First Day of Testing/Evaluation of Minimum Requirement Deliverable - 12/2/2022
Project "Freeze" Date (the last day of development changes) - 12/16//2022

Literature & Technology Review

Literature

- Our team has analyzed a number of sources to better understand the current college tours market and how our solutions fits within it. Of particular interest is the accelerated adoption of virtual college tours due to COVID-19 (1). Accordingly, multiple websites offering free virtual college tours have gained significant popularity, as they allow students to see a given college's campus without traveling. Though widespread university adoption has allowed greater tour access to students from different regional and socioeconomic backgrounds, the efficacy of virtual tours compared to in-person tours is a topic of great debate (2, 3). In addition to virtual tours, our platform will, of course, compete with traditional university-run in-person campus tours. However, we feel that our product differs greatly from both virtual and traditional college tours and could serve as a supplement instead of a replacement for many prospective students. For instance, a student who enjoyed a virtual tour at Michigan and now wants to visit in-person could use our platform to make a more informed decision. Additionally, there appears to be no competitor in the space that we seek to operate in. Our closes competitors, while sometimes offering the option to be matched with a current student, largely try to sell a packaged custom itinerary for wealthy students and their families to visit college campuses (4, 5). Our platform would be different from this as it would focus heavily on empowering prospective students to select a current-student tour guide of their choice, with virtual and in-person meeting options–giving more price flexibility. As such, we feel that our platform provides students with great virtual and in-person options that will help augment their college decision at a low cost.

Technology

- As our group has extensive web development experience stemming from both classes and internships, we are electing to use a tech stack that our team is comfortable with. Accordingly, we plan to use Flask and Python to produce the website's backend, Bootstrap (HTML, CSS) to produce the the frontend, and AWS to host the website. Any API's we need (such as Stripe's for payment processing) can be easily implemented using Flask. Rohan and Colin have significant full-stack experience and James has worked heavily with frontend development, so we will delegate the programming work according to individual strengths. James also has experience working in QA for a large tech company, so he will be spearheading testing.

References

1. https://www.nytimes.com/2020/04/30/well/family/coronavirus-virtual-college-tours.html
2. https://www.insidehighered.com/admissions/article/2020/04/20/virtual-tours-boom-will-they-have-same-impact

3. https://blog.prepscholar.com/virtual-college-tours
4. https://customcollegevisits.com/
5. http://www.collegetours.us/