Prospectus

Your first deliverable requirement is to produce a prospectus for your project. The prospectus should fully describe who is on your team, the technical strengths of each team member, and a brief but complete description of the system you will build. Your prospectus should describe the vaporware that you will create. The prospectus is not a contract. It is a road map that outlines what you will try to create. It is not necessary for you to implement every feature. When complete, post your prospectus on your project portal. (**Your instructor will assume you do this for all documents from now on**).

In order to describe the system you will need to establish contact with your customer as soon as possible, and have an initial meeting in which you can acquire a more solid understanding of what you have been asked to build. You should carefully review the preliminary project description you have been given on the first day of class, and start laying whatever groundwork you can accomplish before your initial meeting with the customer, e.g. start reading up on any dev tools/platforms they might reference, Google other domain specific terms they might be using, etc.

You will be using the scrum methodology to manage and develop your project. If you need to refresh yourself on scrum, you can find a nice tutorial at http://www.scrumalliance.org/why-scrum. The prospectus must also include a product backlog. At this point don't worry too much about *how* you're going to implement the project. Also keep in mind that although it may look like you have 6 sprints, in reality the final couple of weeks of the semester will be busy with the final report, demo video, poster, and presentation materials. Don't plan on it being a full development sprint.

It is also mandatory for each team to use ZenHub Project Management software. This software integrates very nicely within github.com and is free for up to 5 users on private repos (should be sufficient for this project). ZenHub has published a free e-book that will help you get up to speed with the software.

You must also describe areas of **technical growth** -- technical areas in which team members are not necessarily well versed at the outset of the project that must be mastered in order to complete the project. In the course of the semester you will demonstrate your expert technical knowledge, and your ability to learn new things on your own. These technical growth areas should be ones that you will spend a great deal of time researching new techniques, implementing algorithms, etc. Later on, you will be evaluated on your progress in these technical growth areas (see section on grading).

You must also read the Software Engineering Code of Ethics and Professional Practice. It outlines professional responsibility towards the profession, the public, teams, etc. In the prospectus, indicate at least 8 principles you think will be particularly relevant to your project (e.g., 1.01. Accept full responsibility for their own work.) You will be asked to reflect on these principles in your Final Report, so choose wisely.

Take a look at this example prospectus to get a better idea of the information the prospectus should contain.

Prospectus Grading Rubric (100)

- On-time establishment of project portal on GitHub, initial time tracking entries (10)
- Team Description
    - Summary of Technical Strengths (10)
    - Anticipation of Growth Areas (10)
- Project Description
    - Description of Intended Features/Backlog (15)
    - Anticipated Platform / Tooling (15)
    - Completeness / Correctness (15)
    - Ethical Considerations (15)
- Complete the Prospectus Consultation with the Instructor (10)

Team Description

Members:

Our group has 3 members, Linhao Yuan, Alex Woods, and Josue Nunez.

Technical Strengths:

Linhao: Linhao is majoring in computer science. He has experience in software development before, especially web development. He has worked in an internship doing web development, so he is familiar with basic tools and languages in web development. During his past experiences, he has done many front end work with vue.js, HTML, CSS etc.

Alex: Alex Woods is majoring in Computer Science. He has experience in software development, working primarily in back end development. Recently, he worked for Steve's Blinds, gaining experience with .NET Core and working with SQL. In the past he's had development experience with Python, Java, and C#.

Josue: Josue Nunez is majoring in Computer Science. He is currently working with Amcor Rigid Plastics part time as an IT Data Analyst with a focus on Business Intelligence development for centralizing data to create Dashboards and Reports based off of company KPI'S. He will be working full time with Amcor upon graduation this December 2022. He started becoming passionate about Business Analytics after his internship with Stellantis aka Fiat Chrysler Automobiles last summer where he created an interactive audit tool report page using Cognos BI. He has developing experience with Cognos, PowerBi, SQL, Python, JS, vue.js, HTML, and CSS. His strengths are in development with raw xlsx /csv data.

Growth Area:

Linhao: Linhao has no past experience in python, and python is what the team has decided to use for the back end, so he will have to learn the language through our development. Also, though he is familiar with web development, he hasn't done much back end, he will get to opportunity to get hands on experience with backend development on this project.

Alex: The extent of experience that Alex has in front end development is limited to building basic websites. He will have to grow in that area to build a user interface. He has some experience with API's and could grow in that area as well.

Josue: Josue has some experience in Python but hasn't used it in a while so will have to do some relearning. He could grow on back end development as well as has minor experience using API's.

Project Description:

Project Title: Customer Experience Dashboard
Company Name: Digs Solutions

Digs Solutions is a human-centric digital solutions agency that starts with human experience and layers in technology and marketing to deliver digital solutions.One of their bigger markets is in paid search, target audiences, and email marketing campaigns. Clients generally expect monthly reports detailing how these items are working. Our team will work on developing a system that visualizes the omni-channel customer experience for a brand providing near time insights into how a brand's channels are performing based on important Key Performance Indicators such as analytics for emails, ads, and donations. By consolidating and centralizing analytics from marketing tools, sales data, websites, and even mobile apps we can help inform strategies that drive growth for their clients.

Deliverable: The final goal would be a proof-of-concept of this application. Dashboard-type visuals showing a particular brand's site analytics, marketing, and other data in near-real time. A successful engagement will provide an end-to-end understanding of the customer journey.

- Description of Intended Features/Backlog
    - Front End
        - Display the information from the backend to the clients
        - Pick the Red, blue, and the black font text color for our colors.
    - Back End
        - Pull data from Google Analytics
        - Pull data from Google targeted search
        - Pull data from Facebook Ads

        - Pull data from Campaign Monitor
        - Pull data fromiDonate
        - Pull data from DonorBox
        - Pull data fromMailChimp
        - Possibly do the conversion for some of the data from the api
        - Feed the data needed to the front end
- Anticipated Platform / Tooling

    After talking to the sponsor, we decided to use python for our back end, and vue.js for the front end framework. We will be pulling data from multiple API, but those should be already established by the companies. For the API host, it is still yet to be decided, but the sponsor has suggested we look into Linode. And of course, as the class required, we will be using github with zenHub addon to it. We will be using insomnia to test API. The database is still yet to be determined since the sponsor will have to pay for that, so it is up to them.

- Relevant Ethical Principles
    - 1.01. Accept full responsibility for their own work.
    - 1.03. Approve software only if they have a well-founded belief that it is safe, meets specifications, passes appropriate tests, and does not diminish quality of life, diminish privacy or harm the environment. The ultimate effect of the work should be to the public good.
    - 3.02. Ensure proper and achievable goals and objectives for any project on which they work or propose.
    - 3.11. Ensure adequate documentation, including significant problems discovered and solutions adopted, for any project on which they work.
    - 3.13. Be careful to use only accurate data derived by ethical and lawful means, and use it only in ways properly authorized.
    - 7.03. Credit fully the work of others and refrain from taking undue credit.
    - 8.03. Improve their ability to produce accurate, informative, and well-written documentation.
    - 8.04. Improve their understanding of the software and related documents on which they work and of the environment in which they will be used.