**McGill Independent Study Business Implication Write-up**

**Maya website Project with Autodesk**

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Section 1b: introduction/Background & Objectives

What is Entertainment and Media Solution team (EMS): We are responsible for industry strategy, product execution, and the realization of the cloud environment and services that deliver on Production in the Cloud for M&E. The products that the EMS team is responsible are: Maya, 3dsMax, Flame, ShotGrid, Arnold, Mudbox, and Motionbuilder.

What is a waypoint: Waypoint are data that keep track of users’ movement as well as the response within the Maya application. It records important information that related to specific functionality of Maya which different product owners and stakeholders are responsible for within the team. Attributes are associated and corresponds to waypoint, which are additional description of the waypoint. Commands are not associated with waypoint and attributes. It is a standalone data that keeps track of standard commands that user make not explicitly to Maya.

**Who:** The project will support the internal Analysts/Developers in the Data Analytics team at Autodesk Entertainment and Media Solution team (EMS) for product selection and attributes related decision making. The project will only be used internally if goes beyond proof of concept stage.

**What:** The project will deliver a proof of concept stage of website that generates waypoints and corresponding attributes to Autodesk’s product. The data analytics team at Autodesk lacks a centralized website that could generate and provide the list of attributes that internal users can need. These attributes and waypoints can be translated into product usage information that could be used to help improve product quality and understand customers’ needs better. So the goal for this project is to provide a easy to use platform for non-technical users to quickly search for needed data without writing any query or coding.

**How:** The outcome will be a Figma (Figma is a collaborative web application for interface design, with additional offline features enabled by desktop applications for macOS and Windows) design and a website. The project will overall deliver an executive summary containing its business objective, a UX/UI design using Figma, and several scripts for the final website. I will start on September 26th, and will complete the business objective and UX/UI design by October 17th. The draft of the website will be completed around November 14th, and the final solution will be submitted by December 12th.

Section 2a: Scope of Work

The Analytics Team intends to do a deep dive into the following one uses cases requested by Autodesk. The scope will define the boundaries related to the analysis and project deliverables

Thus, for this phase, the scope of the work will be limited to:

* The project will mainly focus on technology and user section. The technology section will help the project to have the working new platform, and the user section will help to achieve a creative and practical environment.
  + Creative: easy to use, but at the same time, the website isn’t dull and rigid to use.
  + Practical: the website should be straightforward with all the available information, and the data should be up-to-date so it is practical to use these data points
* The boundary of the project would be the limited data resources. I will not use large datasets to test out the website, instead I will just use a simple JSON file. But this leaves future extension of the project if needed, as we can consider connecting it to an existing database.
* Currently there is no such website or interface that could provide the corresponding attributes to Autodesk’s product. Examples would be MAYA.CACHED\_PB\_FILL\_END, MAYA.CACHED\_PB\_MEMORY\_LIMIT\_CHANGE, and MAYA.PLOGIN\_LOADED. They have a manual script that could return the desirable output, but they lack the interface for users to easily access.
* I will deliver a proof of concept stage of website that returns the desired attributes of certain product so that there will be this centralized platform where internal users at Autodesk can go and request for needed information.

Use cases: Internal stakeholders, such as product manager (PM) or product owner, engineer, software engineer, etc might want to ask the data analytics team whether certain data exists in the database. Not all the employees know how to use certain data analytics related software such as Looker, Zepl, or just to write queries. Examples:

* Product manager under the Entertainment and Media Solution team ask whether if there is usage data for Color Management in Maya since there will be no more support for the legacy color management synColor on M1/MacOs in Maya2024.
* Determine if there are data for some Maya plugins – features: nCache, nHair, nParticles, Toon Shading, ShaderFX, etc
* Determine if there are data on Maya’s viewport modes

**Out of Scope**

The McGill Analytics projects are designed to be ‘Proof of Concept’ –like works to help Industry Partners advance a current problem solution or uncover a new problem solution. Thus, the aim of the outcomes is not:

* Production level/ready models or solutions
* Training beyond handoff meeting
  + If additional time is requested by the client, any additional time spent with clients after close of the project is at the full discretion of the Student Consultant

Section 3A: Deliverables & Milestones

The below list consists of the initial milestones identified for the Project McGill-Autodesk:

|  |  |  |
| --- | --- | --- |
| Milestones (Deliverable) | Target Date | Comments |
| 1. Business objective & design due | Oct. 17th | Follow up with manager to ensure the design and objective is on the right track |
| 1. Draft of the website due | Nov. 14th | * Additional insights of the website design/aesthetics to be discussed with manager * Any problem related to coding/debugging/Backend integration issue * Things to improve/fix/modify * Difficulties/boundaries/limitations I encountered |
| 1. Solution Delivery | Dec. 12th | Final submission, hand over meeting with professor and Autodesk supervisor |

Section 3B: Content Deliverables Breakdown

As part of the McGill-Autodesk project, the Student Consultants will be responsible for performing tasks throughout various stages of this project. The following is a list of these tasks which will result in the successful completion of this project:

This section of the SOW will focus on the Target state:

1. Project Value Proposition
   * The pain point is the lack of such platform that could centralize users’ request for product’s attributes, and having the easy access to the data points. The project will only assist the Data Analytics team under the Entertainment and Media Solution team (EMS) at Autodesk.
   * In the final submission slides, I will talk more in depth of how this website will help with team’s business goal.
2. Technical Solution Analysis
   * To create the website, I will mainly focused on using HTML, JavaScript, and CSS. At the meantime, I will self-learn more detailed methodologies of creating websites.
   * Figma has a plug-in that allows the design to be directly translated to HTML, so this will greatly improve my work efficiency and reduce the time to do duplicated work
   * JavaScript and CSS are the most widely used and popular website development languages. There are plenty resources online that I can seek for to self-learn, and I can easily find resources if I have difficulties during implementation.
   * JavaScrpit is a text-based programming language used both on the client-side and server-side that allows you to make web pages interactive. While HTML and CSS are languages that give structure and style to web pages, JavaScript gives web pages interactive elements that engage a user.
   * Here are some potential resources for me to self-learn web development:
     1. <https://weblab.mit.edu/schedule/> (I watched all the videos in this website to self-learn web development first)
     2. YouTube lectures
     3. Udemy courses
   * Data will be in JSON format and it is provided by the supervisor at Autodesk. It will be in file format for now. Scalability problem will be considered once the draft of the website is complete.
3. UX/UI
   * Figma will be used to create the user experience web design.
   * Features to consider to include in the webpage are: a searching bar, a drop down menu, and a display area to show corresponding data, and a button for download.
   * Unsure what other features are needed to solve the data collection problem the client is having:
   * The problem clients usually have is unsure if a certain data exist, so normally they would have some keywords to search for. Therefore, search bar is the key feature for this project.
   * We already have a data collection website, so this website that I need to create will only focus on getting and examining if the data exists.

Section 4A: Success Metrics

The goal of this project phase is to advance the project analysis into actionable strategies. The project intends on helping our partners drive to this value and outcome through the following tangible metrics.

Thus, the project will be a success if/when:

* A webpage with clear guideline to search for products or select the products from a drop down menu, and it will return the accurate corresponding attributes and information; The design should be implemented with Autodesk’s theme, and the website should be easy to use; Consider areas for scalability or further development once finished with the first draft.
* A Figma design for the webpage prior to creating the website by considering what is best for the user experience and business objective; The website should be visually appealing and shows some creativity.