**Executive Summary**

The motivation for my capstone is to create a tool to have real time data for operators on which areas are driving their cost per meal (CPM) in Vanderbilt Campus Dining using the Menu Management System, NetMenu and the access and card system, Gold. The opportunity to shorten the feedback loop and push information without having operators run reports will help them guide their day to day decisions for production.

Data Question- How can we get NetMenu data to be displayed with visuals and have it updated with Meal Plan reports coming out of Gold daily?

Data to be Used- We will use the menu export from NetMenu and the daily swipe reports out of Gold.

**Motivation**

The motivation for this lies in operators being able to go to a central spot and get the information they need that allows them to make better decisions without having to learn how to run reports out of the system OR giving them a better idea of what reports they need to look at.

KPI’s that will be focused on the dashboard will be CPM and food waste.

**Data Question**

How can we look at in real time what our CPM is and what is driving that cost?

How can we make better decisions about our menu mix that touch on the areas that we deem important (socially responsible menuing) and still keep costs in line?

Vanderbilt Campus Dining was interested in piloting an addition from Cbord (product owners of Netmenu & Gold) that would perform similar tasks. Cbord pulled back saying that they did not think it would fully meet our needs.

**Minimum Viable Product (MVP)**

Intended Audience: Business Services at Vanderbilt and prospective employers.

MVP:

The project will be presented starting with slides describing the questions and the systems at play. Also, with slides I will explain the minutiae of how the data is getting to where it needs and the cleaning steps. Then, I will use a flow chart of how the information is disseminated through time to get to the end result. Finally, I will present the dashboard from the PowerBi site that it would be viewed from and demonstrate its ability to display the needed information.

In order to do this, I will need to mock up sales and menu reports that will run and update the dashboard for the presentation. I will show the dashboard with one day displayed, and then run a mock ‘end of day’ and have the dashboard refresh with the new accurate information. This will be an example of one location that could be applied to many locations within Vanderbilt.

**Schedule (through <date of demo day>)**

1. Get the Data (11/05/2021)
2. Clean & Explore the Data (11/15/2021)
3. Create Presentation of your Analysis (11/29/2021)

* Should be a presentation, but could include a Jupyter Notebook or dashboard in Excel, Tableau, or PowerBI

1. Internal demos (12/21/2021)
2. Demo Day!! (1/06/2022)

**Data Sources**

Cbord Netmenu data export- CSV*- does not run will need to be pulled*

Cbord Gold transaction by Meal Period Report*- will need to ‘run’ this*

**Known Issues and Challenges**

* I will need to learn how python and PowerBI work together so that when a report is generated it automatically gest cleaned and populates in PowerBI- **will need to research this immensely**
* Will need to mock up a couple days worth of menu data and sales reports, right now these will be coming from the Commons Dining Center week of 11/4/2019
* Run reports in a sequential manner that will go along with the presentation- will need to practice this ahead of time and then walk it back. Potentially have a mock presentation and then the real thing?
* Create meaningful visuals that will speak to the audience- already have this somewhat thought out