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CSD 380

Module 5 Assignment

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Value Stream Mapping (VSM) is a lean methodology used to analyze and improve workflows by identifying inefficiencies and areas for optimization. In 2020, my wife and I started eating a ketogenic diet and have realized weight loss and other health improvements since. In this paper, I’m going to apply VSM to my weekly keto meal planning process, which typically takes place weekly on Mondays. By mapping out each step and identifying bottlenecks, we can optimize the process to reduce wasted time and improve efficiency.

The keto meal planning process follows these sequential steps:

1. Text wife for meal preferences – The meal plan begins by gathering input from my wife regarding her meal choices for the week. This step introduces a potential delay if she is unavailable or takes time to respond.
2. Receive response from wife – Once her preferences are received, the process can continue.
3. Check pantry & fridge inventory – Before creating a grocery list, existing ingredients must be checked to avoid duplicate purchases.
4. Create grocery list – A list is formulated based on the required ingredients for the selected meals.
5. Decide between in-store shopping or Instacart – This decision impacts time efficiency and is dependent on my actual work calendar each week:
   * In-store shopping involves travel time and time spent in the store, but saves a few dollars on fees and tipping.
   * Instacart introduces waiting time for delivery, with the added uncertainty of item substitutions or delivery delays, but is overall less disruptive to my daily schedule on busy Mondays, albeit typically with some extra expense.
6. Put away groceries – Once groceries arrive, refrigerated goods must be stored promptly.
7. Food preparation – Some meals require preparation tasks prior to cooking.
8. Meal cooking begins – Cooking may be delayed if my wife’s unpredictable work schedule prevents her from returning home as expected (typically at 2:30 PM, but sometimes as late as 5:30 or 6 PM).

I was able to identify several inefficiencies within this value stream, including:

* Waiting Time: Since meal planning is dependent on my wife’s input, any delay in response results in a longer lead time before grocery shopping can begin.
* Decision Bottleneck: The choice between going to the store or using Instacart introduces a variable delay. If Instacart is chosen, we must account for unpredictable delivery windows and potential item substitutions.
* Inventory Mismatches: Forgetting to check for certain ingredients before shopping may lead to duplicate purchases or missing items, requiring additional store visits.
* Meal Preparation Delays: My wife’s unpredictable work schedule sometimes pushes back meal cooking, reducing available time for meal preparation and potentially leading to rushed cooking sessions.

To improve the efficiency of this process, we can implement some optimizations:

* Maintaining a pre-saved template of frequently used keto ingredients can reduce the time spent writing out a new list each week.
* Instead of texting for meal choices weekly, a rotating list of preferred meals can be used to minimize decision delays.
* Using a shared digital grocery list or an app like Google Keep can help track pantry stock in real-time, preventing redundant purchases.
* Setting a fixed grocery shopping time (or placing Instacart orders earlier) can reduce uncertainty in the workflow.
* Identifying meals that require little to no prep or can be prepped in advance can help streamline the cooking process, even if my wife’s schedule varies.

By applying Value Stream Mapping to the keto meal planning process, we can identify inefficiencies such as waiting times, decision delays, and scheduling uncertainties. Implementing structured improvements, such as standardizing grocery lists and optimizing meal selection workflows, can reduce unnecessary delays and create a more efficient system for meal preparation.

These optimizations not only save time but also make the weekly keto meal planning process smoother and more predictable.

I’ve used LucidSpark to create a VSM map that identifies the intended scope, current state map, inefficiencies and an implementation plan:

A screenshot of a diagram

AI-generated content may be incorrect.