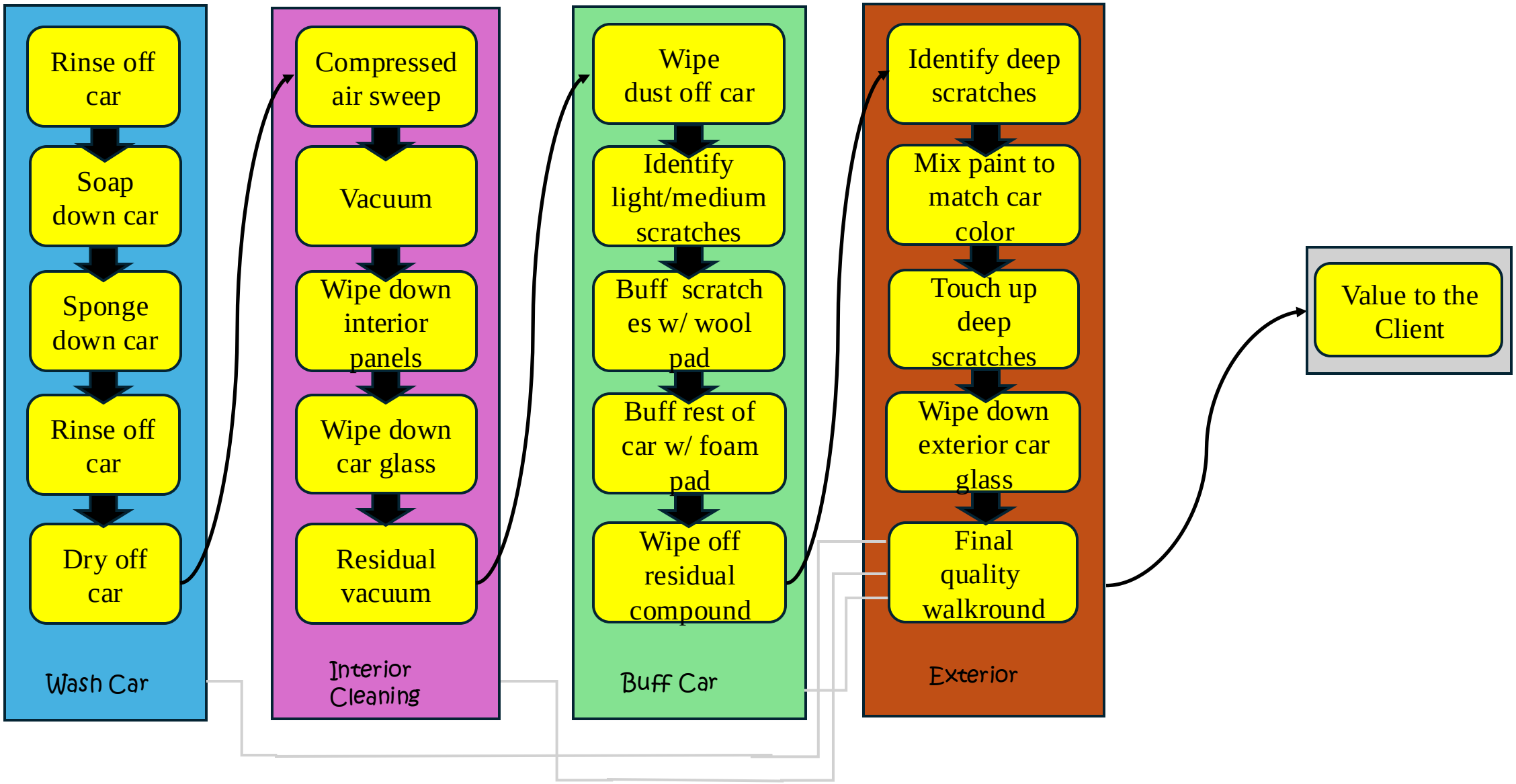
Value Stream Map for my Entrepreneurial Venture of Automotive Detailing

- Noel Miranda
- DevOps
- Module 5
- Assignment VSM

Automative Detailing VSM



Analyzing Lean Metrics

Estimated Average Flow Time (Average Time in Each Stage)

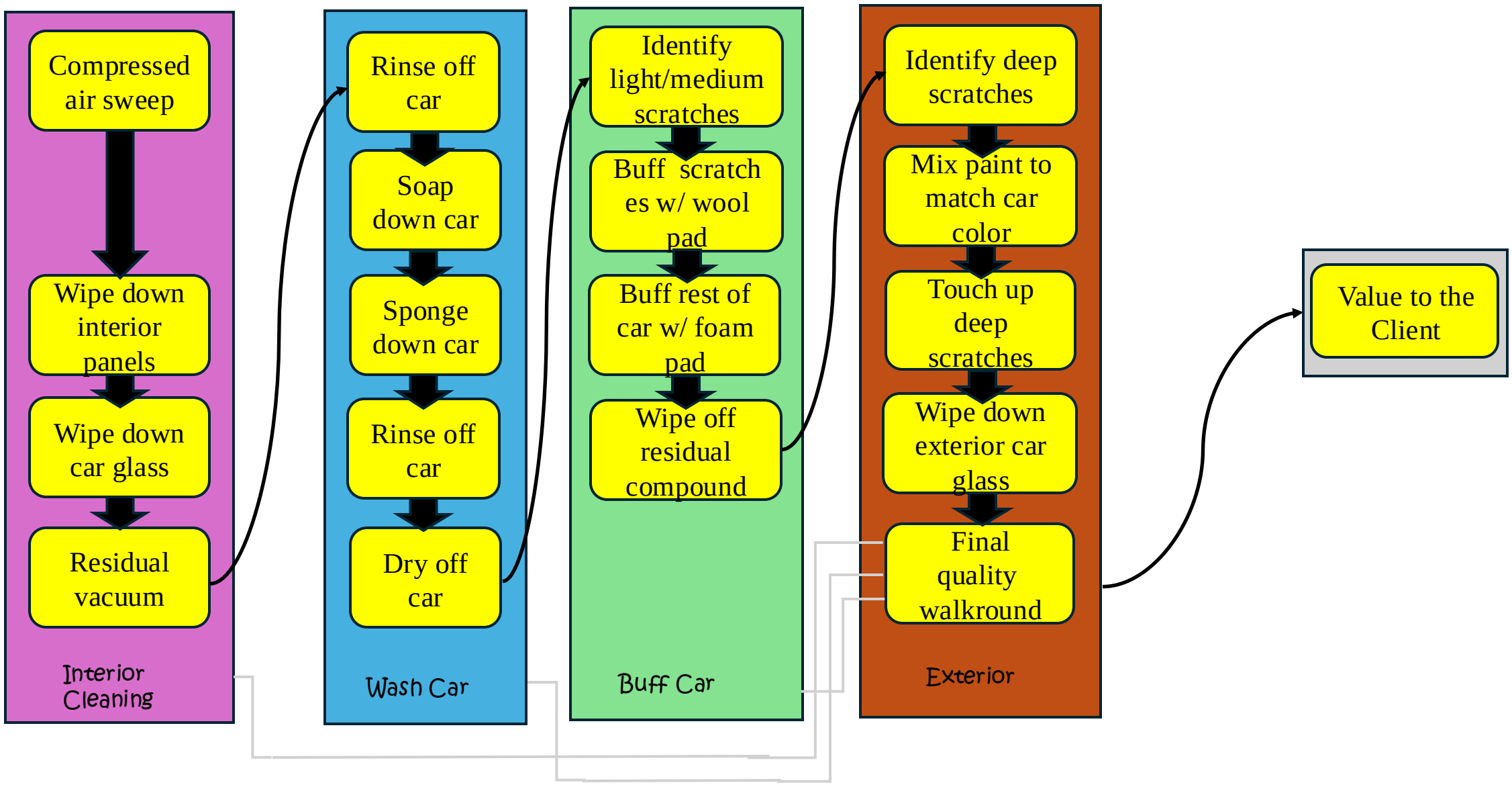
Stage	Average Estimated Time (Minutes)
Wash Car	60 Mins
Interior Cleaning	40 Mins
Buff Car	45 Mins
Exterior	20 Mins

Estimated Cycle Time: 165 Mins (2.75 hrs)

Optimizing Detailing Process

- **Eliminate Waste:** Washing a car takes up a lot of time, especially trucks, therefore I can potentially cut down some time by investing in a pressure washer and soap sprayer instead of soaping down the car by hand. Also, in the interior cleaning stage, I realized I am vacuuming twice. Therefore, I can eliminate the initial vacuum and just vacuum after wiping down the interior. In total, this could save me around 20 minutes.
- **Workflow Orchestration:** After visually seeing the whole process as a VSM, I questioned why I must wipe off dust from the car before buffing if I just washed the car. This made me realized that the order of the workflow could be modified to eliminate this step entirely. The dust on the car must be coming from the compressed air sweep step of the interior cleaning stage which blows the inside dust to the outside of the car. Therefore, a better approach would be to clean the interior of the car first and then wash the car. After washing the car, it will be ready to buff without needing the extra step of wiping off dust. As a result, I will be more efficient and saving a potential extra 5 minutes.
- **Governance Models:** There is a time when I was conducting a final quality walkaround for a car, and I noticed a couple of new scratches were formed after the buffing stage. During further investigation, I noticed the microfiber towels I was using were covered in dust particles which created minor scratches. As a result, I had to repeat the buffing stage and the lead time increased. As a learning lesson, I decided to create a rule that new cleaning materials should be used for each vehicle (especially towels). As an extra layer of protection, I also made it a habit to inspect the microfiber towel each time before wiping anything down to make sure it is not filthy and to avoid repeating any part of the detailing cycle.

Updated Automative Detailing VSM



Analyzing Lean Metrics (Updated)

Expected Estimated Average Flow Time (Average Time in Each Stage)

Stage	Average Estimated Time (Minutes)
Interior Cleaning	40 Mins
Wash Car	40 Mins
Buff Car	40 Mins
Exterior	20 Mins

Estimated Cycle Time: 140 Mins (2.33 hrs)

References

- Kim, G., Humble, J., Debois, P., Willis, J., & Forsgren, N. (2021). The DevOps Handbook, Second Edition. IT Revolution.
- Knight, L. (2020, October 29). 3 Easy Steps for Using VSM in Everyday Life - ConnectALL. ConnectALL - 3 Easy Steps for Using vsm in Everyday Life. https://www.connectall.com/3-easy-steps-for-using-vsm-in-everyday-life/