Lab 1 Schedule Puzzle Product Description

Jake Austin

Old Dominion University

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Professor Thomas Kennedy

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1 Introduction

Organizing tasks may be tedious for some people, but often it's necessary to have a constructive list of activities. An organized schedule is a critical component of effective time management because it allows individuals to achieve goals with reduced stress. However, there are issues with task organization and prioritization. The Current Flow Chart, shown in Figure 1, exhibits those difficulties in setting a plan with concerns, such as time conflict and time framing, that result in resetting the schedule.

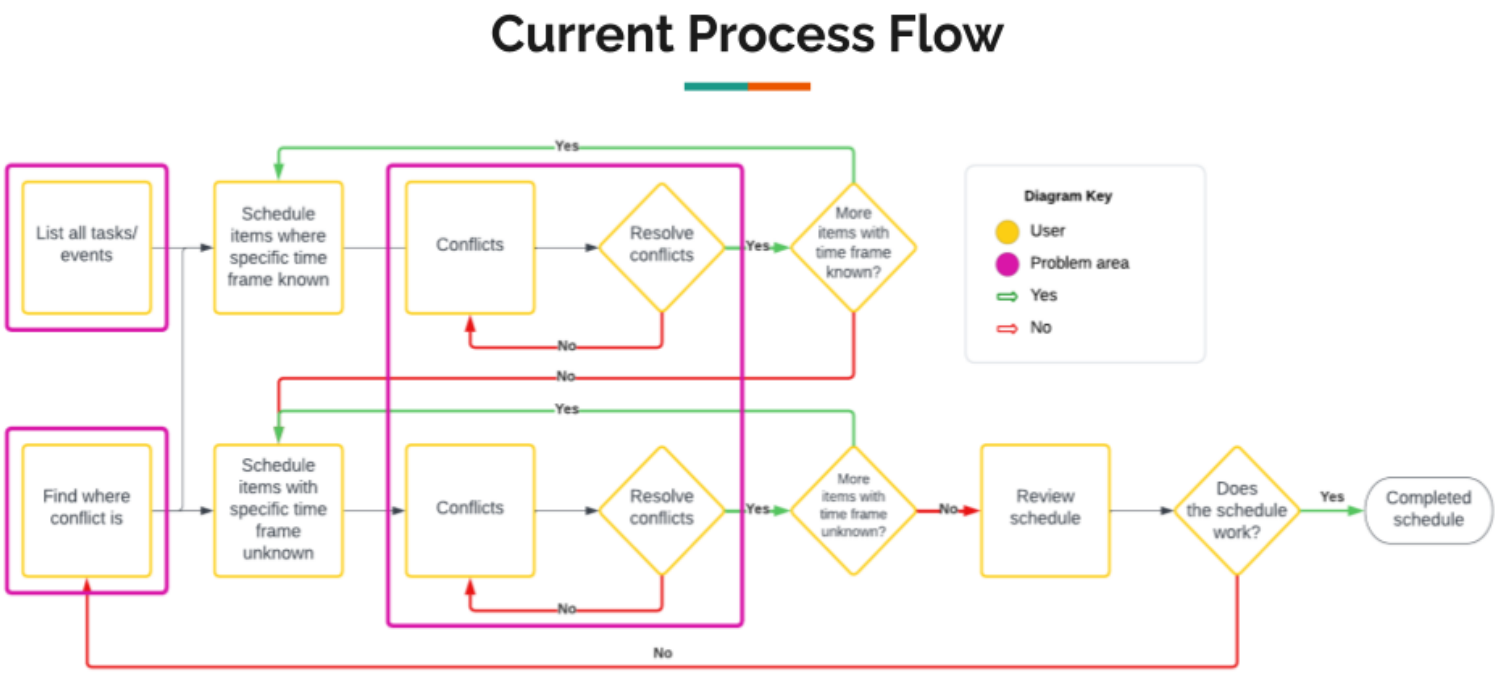

Figure 1: Current Process Flow

According to a 2022 study of 500 employees from various industries, less than one-fifth (18%) of people use a proper time management system (Richardson, 2022). Not all tasks are organized in the most effective way to implement a time management system or a schedule. Often, schemes are too rigid, and users fail to deliver the desired results.

Numerous applications need to support the user's ability to manage everything manually, from task creation to task prioritization, which can be overwhelming for those who have time management issues. The Schedule Puzzle is the solution to those problems. This web application generates schedules automatically and collaborates with the user to create tasks. The product's system will prioritize those tasks and create a schedule tailored to the user.

2 Product Description

The Schedule Puzzle product is an automated schedule creation based on user-supplied task, which allows user(s) to input the names of tasks, duration, and number of tasks. This product will automatically put together a schedule based on the user's inputs. The Schedule Puzzle contains a myriad of functionalities, such as importing and exporting calendar, multiple calendar interfaces, label for the task(s), and notification for user on the various type of task(s). The prioritization of the product is based on the categories, deadlines, days, and time of days that the user(s) has implemented into the system, with a semi-automatic conflict resolution to detect any issues in the schedule, as shown in Figure 2. The Schedule Puzzle will provide with customization for the labeling and prioritization for the user(s)' own personal schedule.

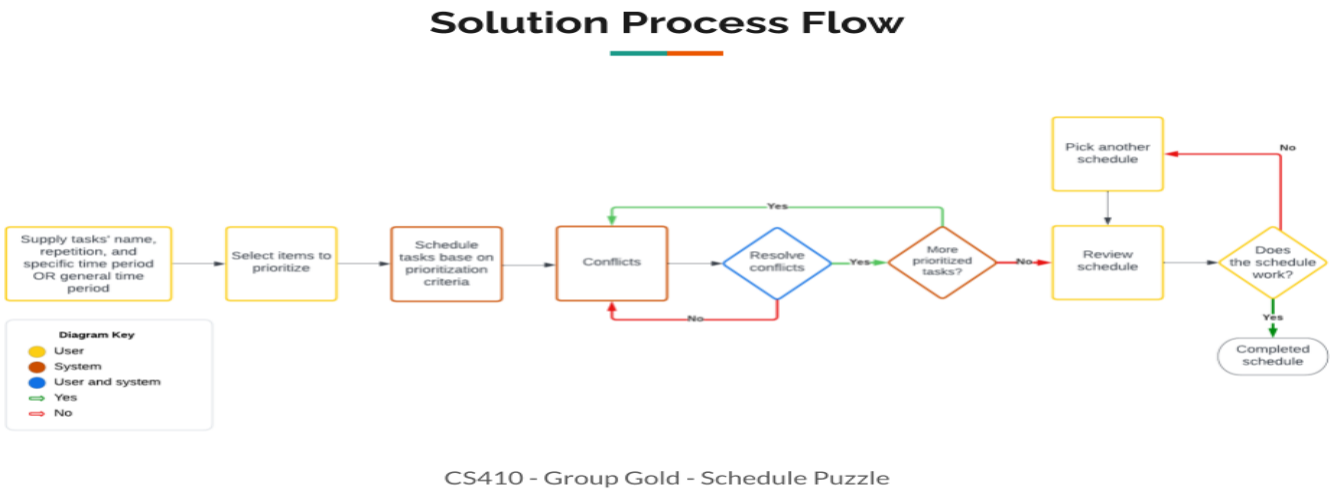

Figure 2 Solution Process Flow

2.1 Key Product Features and Capabilities

The main features of the Schedule Puzzle product are the automate schedule creation based on the used-supplied tasks and events. This feature is unique due to the accessibility for the automated schedule creation based on the user inputs to all individuals. This application can also allow for the users to input tasks at the start of the process of the scheduling process, which will result in the user to detect a conflict and how to resolve it. The alleviate rigid schedule creation of the Schedule Puzzle can allow user(s) to collaborate in constructing the schedule within the system.

2.2 Major Components (Hardware/Software)

The Schedule Puzzle has certain components that is structured to the field of scheduling. The types of hardware that the application can operate are personal computers, such as desktops or laptops, cellular devices, and tablets. The software of the application will be provided with HTML, JavaScript, and CSS for the frontend and the coding language of Python for the backend. The database for the product is Amazon Web Service and PostgreSQL, with the system of the framework provided by Django. The Integrated Development Environment for the product is VSCode and its repository for the coding will be stored in GitHub.

3 Identification of Case Study

The identification of the type of individuals that the Schedule Puzzle Product is aiming for are struggling with time management and for those who already have a calendar application. The reason that the application is being developed is to create opportunities for user(s) to be productive are often ignored and detail the important tasks that are often neglected. The second reason is to alleviate the stress from people that has issues with schedule creating. In the future,

the different sort of individuals that will use this application will be the following: students, administration clerks, leaderships in organizations, and up-in-coming businesses.

4 Product Prototype Description

4.1 Product Prototype Description

4.2 Prototype Features and Capabilities

4.3 Prototype Development Challenges

5 Glossary

Task: Treated as a catch-all term to refer an event that need to be finished by the user.

6 References

Indeed Editorial Team. (2021, February 22). 12 Time Management Problems (and How To Fix Them). Indeed. Retrieved from https://www.indeed.com/career-advice/careerdevelopment/time-management-problems

Nemko, M. (2021, December 3). 4 Causes of Poor Time Management | Psychology Today. Psychology Today. Retrieved from https://www.psychologytoday.com/us/blog/how-to-do-life/202112/4-causes-of-poor-time-management

Prabhu, A. (2022, November 25). Importance of scheduling tasks and its benefits. Profit.co. Retrieved from https://www.profit.co/blog/task-management/importance-of-scheduling-tasks-and-its-benefits/

Richardson, B. (2022, October 26). Time Management Statistics & Facts (New 2022 Research). Acuity Training. Retrieved from https://www.acuitytraining.co.uk/news-tips/time-management-statistics-2022-research