

Lab II Schedule Puzzle

Product Specification

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1. Introduction

1.1. Purpose

The SRS document is intended to inform users on how Schedule Puzzle will work. Schedule Puzzle is a web application that specializes in automated schedule creation. Schedule Puzzle is intended for users to work together with the web application to create a schedule that best suits their lifestyle.

1.2. Scope

The goal of Schedule Puzzle is to assist people who have difficulty coming up with a schedule. The prototype will be fully functional except for automation and prioritization.

1.3. Definitions, Acronyms, and Abbreviations

Application Programming Interface (API): Software that allows two or more computer programs to communicate.

Amazon Web Services (AWS): Service that provides on-demand cloud computing and APIs to individuals and organizations.

Cascading Style Sheet (CSS): Language used to describe how elements are displayed on a screen.

Comma Separated Value (CSV): A text file format that uses commas to separate values.

Discord: A Voice over Internet Protocol (VoIP) and instant messaging social media platform that allows the users to communicate with voice calls, text messages, and sharing files.

Django: Python framework for secure and maintainable websites.

Github: An online software development platform that is used for storing, tracking, and collaborating on software projects.

HyperText Markup Language (HTML): Designed for creating web pages.

Integrated Development Environment (IDE): Software application used for software development.

JavaScript: A scripting language for creating dynamic web page content.

Natural Language Processing (NLP): Machine learning used to interpret human language.

PostgreSQL: A relational database management system.

Python: A programming language used to create a variety of different programs.

SQLite: An embedded, server-less relational database management system.

Task: Catch all term for things that need to be completed by the user

1.4. References

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1.5. Overview

This product specification will go into detail about the features of Schedule Puzzle. It will cover things such as interfaces (external, hardware, software, user, and communications protocol interfaces), the requirements of functionality and performance, maintainability, and reliability.

2. Overall Description

2.1. Prototype Architecture Description

The prototype for Schedule Puzzle, for the most part, will have the functionalities of a real-world product. As seen in Table 1, custom prioritization and natural language processing will be partially functional, and behavioral suggestions will be partially or eliminated.

Feature	Real World Product	Prototype
Basic Calendar Functionalities		
Import existing schedules (.ics, .csv)	Fully functional	Fully functional
Export existing schedules (.ics, .csv)	Fully functional	Fully functional
Has daily/weekly/monthly calendar interface	Fully functional	Fully functional
Modify tasks	Fully functional	Fully functional
Create notes inside of tasks	Fully functional	Fully functional
Send reminders/notifications (push, text, email)	Fully functional	Fully functional
Automation, Customization, and Prioritization		
Automatic schedule creation	Fully functional	Fully functional
Semi-automatic conflict resolution	Fully functional	Fully functional
Custom prioritization	Fully functional	Partially functional
Natural language processing	Fully functional	Partially functional
Behavioral suggestions	Fully functional	Partially/Eliminated

Table 1. Real World vs Prototype

2.2. Prototype Functional Description

Schedule Puzzle is comprised of the following major components:

- Hardware
 - Personal Computer
 - Desktop
 - Laptop
 - Cellular Device
 - Tablet
- Software
 - Languages
 - SQLite3
 - HTML, JavaScript, CSS
 - Python
 - Library
 - Django Framework

The Figure 1 below showcases the major functional components of Schedule Puzzle.

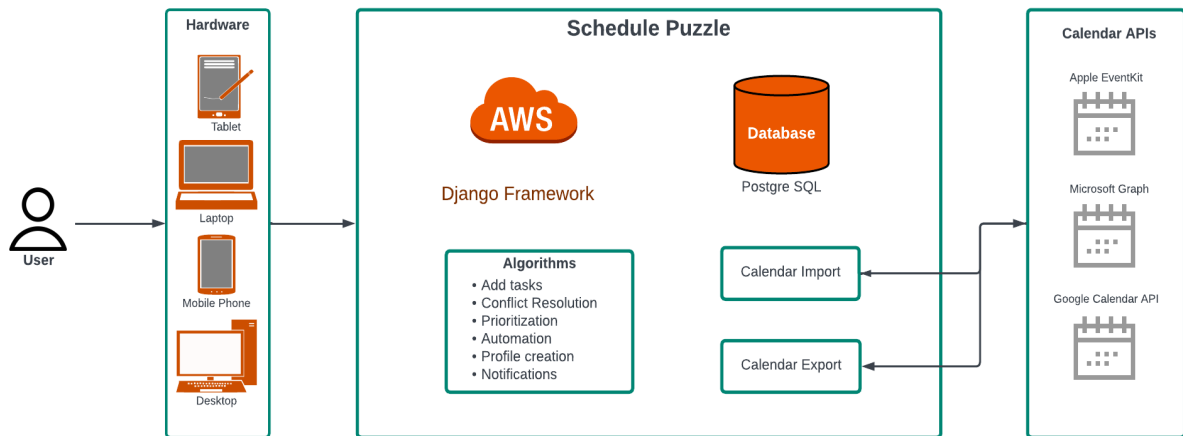


Figure 1. Major Functional Component Diagram

2.3. User Characteristics

2.4. Constraints

N/A

2.5. Assumptions and Dependencies

N/A