

Lab 2: Requirements & Specifications Section 3

Team Gold – KnowTime

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## **1 Introduction**

University students often need help with efficient workload management. KnowTime aims to be a “consolidation application” that allows easy assignment tracking, grade visibility and analysis, study plan management, and classmate collaboration in one tool.

### **1.1 Purpose**

Time management remains a significant challenge in both academic and professional settings. According to research, 82% of individuals need a robust time management system, leading to substantial inefficiencies (Ariella, 2022). In the academic realm, students are particularly vulnerable to these challenges, often experiencing stress and reduced productivity due to poor time management (College Success Plan). Notably, the average person attempts 13 different time management strategies, demonstrating the ineffectiveness of current solutions (Ariella, 2022).

The purpose of KnowTime is to solve the problems with current study solutions by providing students with an integrated task and study time tracker tool. By adding tools to the metaphorical student toolbelt, KnowTime aims to enable students to succeed in the modern classroom.

### **1.2 Scope**

KnowTime scope is directly by providing a multifaceted application designed to enhance study habits and time management skills. Key features included in the scope are:

- **Pomodoro Timer with Customizable Study Sessions:** Utilizes the Pomodoro Technique, a proven method for boosting productivity by dividing work into focused intervals, reducing burnout and enhancing mental agility (Alves, 2023).
- **Direct Canvas Integration:** Allows seamless synchronization with class platforms, ensuring that assignments, deadlines, and grades are easily accessible.
- **Grade Tracker:** Offers tools for students to monitor their academic performance continuously.

Integration into smaller Canvas competitors, such as Blackboard, are not within the scope of KnowTime at this time.

### 1.3 Definitions, Acronyms, and Abbreviations

**Grade Tracker:** Grade tracking will be based on user-inputted grades. It will look at their grades, and the time spent studying, which may be entered by the student or automatically generated if the task was completed during a study session within the website. It will then generate a graph correlating time spent studying with the grade they received. They will also be able to filter this graph by tags. This will allow students to view a particular class to determine how they can improve. The student will set a goal for the grade and view how they are progressing over time.

**Pomodoro Timer:** The Pomodoro timer technique was created by Francesco Cirillo in the 1980s while he was a university student. To follow this technique, the student sets a timer for 25 minutes to complete a task. Once the timer goes off, the student takes a 5-minute break and then

continues to work again for another 25 mins. After four sessions, the student takes a 15–30-minute break (Scroggs 2022).

**Study Plan:** A study plan will be generated based on various factors that will be entered by the student. Examples of information entered that will be considered are assignment due dates, exam dates, and times that the student has specified they are busy. Study plans also consider time spent on similarly tagged tasks and the need for breaks between tasks.

**Task:** A Task is any assignment that the student needs to complete, whether that be a homework assignment, an exam, or just making time to study or gather materials. Tasks can have multiple tags and are created by the student in the web application.

## 1.4 References

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## **1.5 Overview**

The remaining sections, Sections 2 and 3, will provide an overall description of KnowTime and a detailed feature analysis, respectively.

## **2 Overall Description**

KnowTime will be a web app with many features to reduce student burnout and increase organization. We will have a community forum, calendars, task tracking, grade tracking, a points system, and personalized study plans. All these features should ensure a personalized, helpful experience for each student.

### **2.1 Product Perspective**

KnowTime is a web-based platform developed to help students manage their time effectively while minimizing the risk of burnout. It creates personalized study plans tailored to each student's needs, considering factors such as the duration of their study sessions, their busy schedules, and the importance of incorporating breaks to maintain productivity and well-being.

### **2.2 Product Functions**

KnowTime will include a Pomodoro timer with customizable study sessions, allowing students to adjust their work and break durations. Work sessions can range from 20 to 90 minutes, short breaks from 5 to 15 minutes, and long breaks from 20 to 60 minutes. Students will earn points during study sessions, which can be used to unlock avatars.

The platform will feature a task board where students can track the time spent on tasks, edit task tags, view due dates, set reminders, and enable email notifications. Tasks will also appear on a calendar and can be added manually or imported directly from Canvas and Blackboard.



A grade tracker will enable students to monitor their academic progress, showing how their grades have changed over time with the application's use.

Finally, KnowTime will provide links to resources on studying and mental health. The application will also support social interaction by allowing students to add friends and communicate via in-app messaging or on the forum, to provide an avenue to discuss challenges with peers. However, KnowTime itself will not offer mental health assistance; students will be directed to the resources page when needed.

### **2.3 User Characteristics**

KnowTime is primarily tailored for students at a college utilizing Canvas who are seeking to enhance their organizational skills or manage heavy workloads. The typical student-customer will be in multiple courses.

Another important characteristic to note about the KnowTime student-customer is that they are increasingly facing mental health challenges. The increase in mental health challenges must be a characteristic kept in mind when considering holistic student success.

### **2.4 Constraints**

N/A

### **2.5 Assumptions and Dependencies**

N/A