

Focus Time

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Software Engineering course project

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Preface

This is a proposal for the Focus Time project for partial fulfillment of the requirements of a Software Engineering course (CSC431) project in the department of Computer Science at the University of Miami.

This proposal provides the scope and context of the project to be undertaken. It details the intended user group and the value that the system will have to them.

The intended audience of this document is the course professor and teaching assistants so that they can determine whether the project should be approved as proposed, approved with modifications, or not approved.

Table of Contents

Cover Page	1
Preface	2
Table of Contents	3
Overview	4
Purpose, Scope and Objectives	
Project Description	

1.0 Overview

1.1. Purpose, Scope and Objectives

The purpose of this project is to provide the design of a free to download mobile application for assisting the user in staying focused for long periods of time. This application is meant to streamline the usage of two popular techniques used to maintain focus all in one app. The first is the “Pomodoro Technique”, a time management technique that allows people to maintain consistent levels of productivity over long periods of time by allotting times for breaks in between working periods so that mental endurance for focusing is not lost quickly. The second is a technique that uses music to improve motivation, mood, and overall mental endurance. The use of timers and the ability to upload music files (mp3, WAV) to a music player within the application are used to emulate these techniques. Users will customize work timers (during which the user loses the abilities to exit the application and to view notifications), break timers (during which the user gains the previous abilities back), and music files that play during the work timers. These 3 features are what makeup “TimeSets” within our application. “TimeSets” are fully customizable by the user. The product will also house user created “TimeSets” that can be collaboratively shared privately or set as viewable for other users to save as their own. The intended audience is anyone looking to boost their productivity for long hours at a time. However, a target of special interest to market towards are those within the age range of young teenagers to young adults. With people starting to be exposed to the fast-paced nature of the internet from earlier ages, it would be especially useful to them as being accustomed to the fast pace has come at a deficit with earlier generations having trouble focusing for long periods of time.

On release, this mobile application will need an internet connection and mobile device (iOS or Android). The application would be created using Xamarin, an open-source platform, which allows for cross-platform mobile application creation using C#. Xamarin includes a lot of built-in tools that allow for rapid prototyping, making it intuitive to use. Later down the line, this project can also be expanded for a desktop version using the original codebase for the original mobile version.

1.2. Project description

This proposed system will allow users to create either a public or private account where they have access to all their “TimeSets” during which they focused on their task. “TimeSets” consist of work timers, break timers, and a music player that plays music during work timers. Work timers will disable the user from exiting the application, disable notifications, and optionally play music through an in-built music player. Break timers will return control to the user of the aforementioned abilities, and the music player can play MP3/WAV files that the user uploaded to the “TimeSet” previously in the application. Users can see other user created “TimeSets” listed as public using the search system. The search system will display all public “TimeSets” across all users sorted by name, timers, or by a one-to-five-star rating system. Users will be able to save these public “TimeSets” as their own (timer settings and music files). Meanwhile private “TimeSets” allow a user to create their own “TimeSets” free of the rating system and can only be selectively shared among others through a link. Users would then share this link with others through means outside of our application. Ideally, all these services would be programmed by our team in HTML, CSS, and Javascript using Xamarin and the tools available within Xamarin to build cross-platform versions of our mobile application.

Features Overview:

- Login page and account creation
 - Sharing options, TimeSets linked to the account will be here
 - Will be made from scratch
- Public and Private “TimeSets”
 - Each “TimeSet” contains a set of timers for work, a set of timers for breaks, and music to be played during the timers for work
 - Can be sorted by name, timers, and rating
 - Will be outsourced from open-source software
 - Will be created from scratch
- “TimeSet” creation and sharing
 - Will be created from scratch
- Search functionality
 - Will be outsourced from open-source software
- Link creation and sharing
 - Will be outsourced from open-source software

Thus, should a feature prove to be too time consuming; the team will outsource as required and provide credit to those who originally wrote the programs.