Akdeniz University

Computer Engineering

SENIOR PROJECT

REPORT 1

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Table of Contents

1. **PROJECT** - OPTIME

1.1 INTRODUCTION

In the final project of the bachelor's coursework, it is decided to do an application which is about time scheduler for projects and personal affair. Currently, people use project management systems like 'Trello', 'Asana' to organize their business and some applications as Google Calendar to manage their activities. There are many applications that will be used to manage time. However, it has yet to develop a personal assistant aspect to gather all systems. Although clients have used time to-do applications to plan their time, they have used with no real consistent approach. Development of a time management project will improve optimization of time. In addition to management of project, application will be used to plan free times.

I want to clarify why I choose to develop a time management project. Nowadays, it is hard to schedule a project or a day. There are a lot of applications, however; none of them are not be able to organize the daily planning according to the time by minimizing the waste of time. The popularity of project management applications grows every second. It fascinated me. Then I thought that why those applications do not organize the time. The use of those kind of applications are growing popular.

1.2 PROJECT DESCRIPTION

This management application provides users to schedule their personal time and manage business projects which is named optime. There are many fundamental properties of the application, but the most important feature is the optimize time in the course of schedule.
Main properties of project management part are:
- To reach information that belonging to the project as documentation which includes reports,
- To provide to create project,
- To share tasks with other users or team members,
- To assign tasks to anyone else in the project team,
- To shuffle tasks depending on deadlines and priorities,
- To give a break between tasks according to the pleasure of user,
- To take note to any task,
- To give report of productivity analysis at the end of the week,
- To change color of the task depending on priority.

Personal time management part's essential properties are:

- To divide big task to small tasks,
- To define free times which is out of the working time for designing personal time,
- To remind things that are not done for a long while,
- To control repeating tasks,
- To take note to any task,

- To shuffle tasks depending on priorities,
- To give a break between tasks according to the pleasure of user,
- To change color of the task depending on priority,
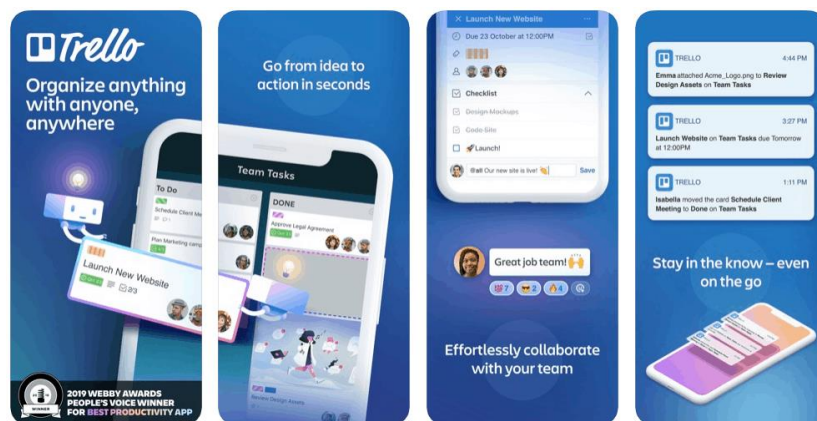- To determine if task reduplicate.

1.3 AUDIENCE

Who is the general audience the application to reach? This application can be used both as personal and as teamwork. By means of the application, everybody can easily program their daily routines, so they can save the time and do their works efficiently. At the same time, it generally appeals to people of all ages. On the other hand, it removes the negations of teamwork. During the teamwork, some hardships may arise in the matter of to be controlled of tasks, the productivity of the workers, and the completion period of the project. The teamwork comprises of every member's devotion himself, so to reach a conclusion is harder than personal one. For this reason, if the part of the project's administration be addressed, users of occupational group in the teamwork reach the condition of audience.

But this application's using as personal has opportunity to give completely service to everybody in detail. Thanks to this, the private schedules, be guided with general information and international reality, transform to personal application which has the feature of add, delete or fix the program according to users' desire. This has also led people to be alert in doing their responsibilities in the best conditions and the most suitable time.
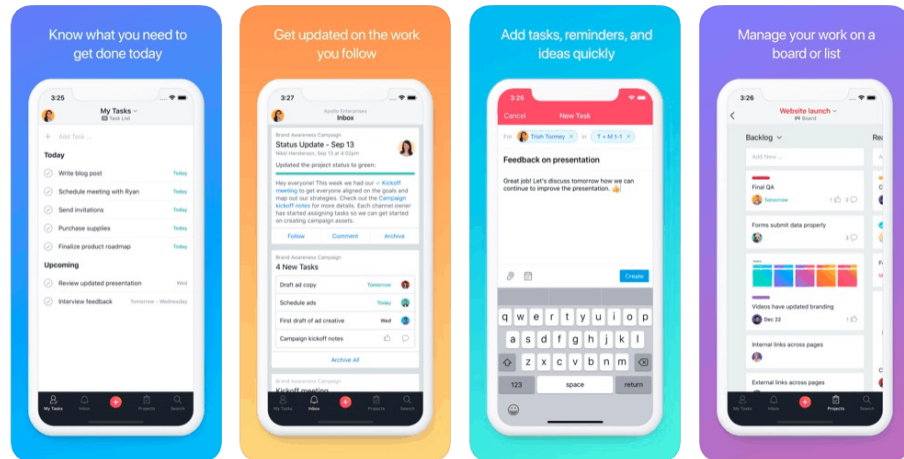
User centric application makes users' life more pleasurable and ordinate. At the same time, it provides an opportunity to observing widely what has completed in a long time. At the time, it provides on opportunity to observing plans in a long time widely.

1.4 SIMILAR APPLICATIONS

The first similar application is Trello which is the project management tools. It can be used to organize project, project steps and organize works. The most known feature of the application is to create tasks containing images, attachments, lists. Another property is to drag and drop tasks onto other task list.
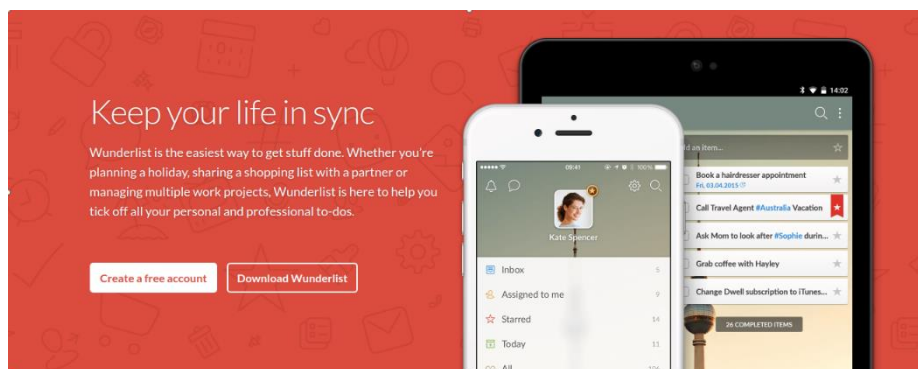
Another alike project is Asana that is the project management application which is easy to use. With Asana, everyone creates task list and share it with a team. However, there are many elements in the application which makes the application complicated. It also supplies an opportunity to create a timeline with tasks' deadlines.
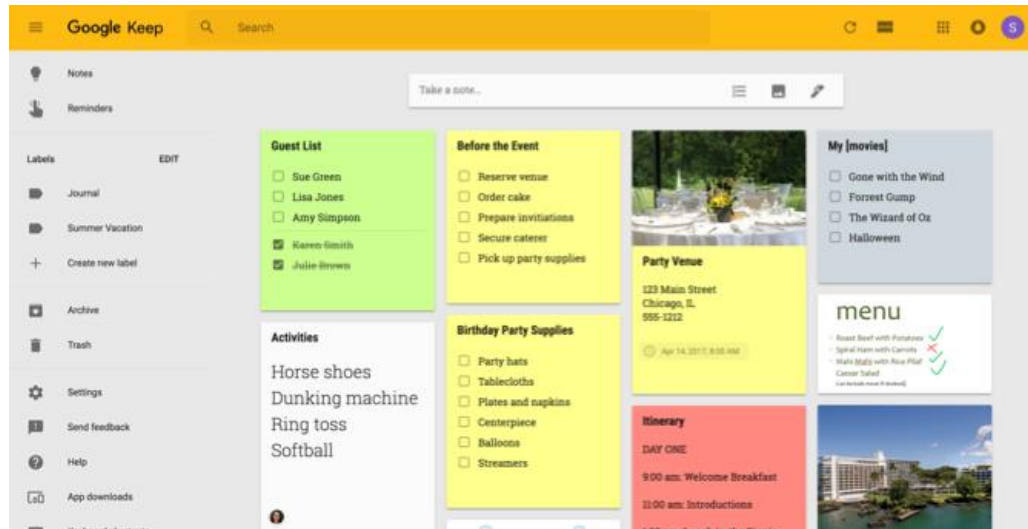

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Next application which is similar to optime is named Wunderlist. It is a tool that makes planning free times and managing projects easily. It organizes and shares personal to-do list easily. User can determine due dates of tasks and Wunderlist has a reminder to send notification to user.

Google Keep is another application which note taking project. Users can take note easily and the application remind it later at the right time. It supports photo notes, voices and checklist. Stored things will be available in Google Drive within seconds.

Optime provides to manage team projects with its intelligence user interface easily. It will be used to organize project, create teams, schedule project steps. In addition to this, project has a personal part which will be used to plan personal activities as reading a book, learning a new programming language. There are many differences from other applications. The first and most importance one is the schedule tasks. The application shuffle all the tasks automatically and it plans user's day or week programmatically. Thus, it optimizes user's time. Another significant feature is that the application contains project management part and personal management part at the same time. Thus, it aims to manage user's daily works and its job. In addition to those advantages, it divides big tasks to small tasks. It also has reminders for tasks which help users to realize time of tasks.

1.5 REQUIREMENTS

To build this application, there must be a platform for mobile application development. It is planned to use Microsoft's Xamarin technology which is in Visual Studio.

Visual Studio 2019 will be used in this project. Microsoft published Visual Studio 2019 in April. However, there is not enough documentation for 2019 edition. Microsoft Visual Studio is an IDE. It is used to develop websites, web apps, web services, and mobile applications. Visual Studio also supports different programming languages and allows developers to debug easily and quickly. Visual Studio provides developers these programming languages: C, C#, C++, Visual Basic, C#, F#, JavaScript, TypeScript, XML, XSLT, HTML, CSS, Python, Ruby, Node.js, M. Most developers choose Visual Studio to build an application, so there are many documentations in the internet. That is why Visual Studio is selected to build project.

Visual Studio also provides .Net Core Framework which is extensible and the latest version of the Microsoft's Framework Technology. It was designed to support cross platform development. There is Entity Framework Core part of .Net Core technology to build objects and its relations. Entity Framework Core technology is also open source and cross platform for data access technology which is also known as an object relational mapper (O/RM).

Xamarin is a platform that developed by Miguel de Icaza, Nat Friedman, Joseph Hill. It provides to build IOS, Android and Universal Windows Platform at the same time. It is possible to develop a native application. It is not necessary to learn Objective-C, Swift or Java.

Xamarin will be used with Entity Framework Core to avoid writing one code many times. Database part will be created by Entity Framework Core technology which is based on code first approach.

Microsoft SQL Server is a relational database management system that is developed by Microsoft. It can run on the same computer or on another computer across a network. From this approach, it provides developers to run in synchronism. In addition, SQL Server keep 4.1 billion records.

REFERENCES

1. https://www.google.com/
2. https://trello.com/
3. https://app.asana.com/
4. https://www.wunderlist.com/
5. https://keep.google.com/