

**CS102**

Instructor:

Assistant:

**2021/22 Spring****Aynur Dayanık****Haya Khattak**Project  
Group**2H**

## ~ New Calendar App ~

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**Kutay Tire, Alper Yıldırım, Alp Batu Aksan, Melih  
Rıza Yıldız, Süleyman Yağız Başaran**

Criteria	TA/Grader	Instructor
Presentation		
Overall		

## Requirements Report

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### 1. Introduction

Especially with the fast developments in the modern world, many people have become forgetful about their special days and lost track of their times. Therefore, they need some sort of an app or a program to help them organize their days, holidays and make sure they do not skip anything. This app provides exactly what these people need as it is not an ordinary calendar app. It can be specialized through the religions and the nationalities of the users to show the special days in each case. Users also can not only add or delete activities, but they can also micromanage their times by deciding the starting hours of an activity which no other app provides. Apart from these, the user interface will facilitate the lives of the users immensely. Activities will be colorized or marked based on their priorities and specialties. The users will also be able to share their calendars if they wish with their friends. Last but not least, the weekly and monthly reports will give enough information to users whether they missed any activity or how much time they allocated for a certain activity so that the users can manage their time better for the next week or month. In the implementation of it, mostly JavaFX will be used. For the interface, “Swing” and “AWT” classes are chosen although these can change in the future. Finally, for the database, MySQL is going to be used and the app will be desktop-based.

## 2. Details

### 2.1 Main Purpose

The main function of this app is to help users organize their days and hours so that they do not forget any event and manage their activities without any problems. Below are some key aspects:

- Add/Delete Sections in a day to add an activity or remove it if the users wish
- The duration and the beginning time of an activity can be determined by the users.
- A section to choose a religion and a nationality so that users will see the sacred days and national holidays marked on the calendar.
- Summary of activities in reports
- Detailed and specific colorizations that mark an activity type, a special day, etc.
- Additional calendar types as Chinese or Islamic to address more cultures.

### 2.2 Subsections

First of all, when the users enter the app, they are required to either sign in or log in to their already existing accounts. They will be required to enter their usernames and their passwords. After that, the information of the users will be saved into the database. When they log in, they will automatically be directed to the calendar part that shows the dates of the month. If they please, they can go to the next or previous month with the arrows that will be added to either side. On the menu bar, which will be above the calendar, there will be the following options and features related to these options:

**2.2.1) Add/Delete Activity:** This will be one of the key aspects of the app. When the users choose to add or remove an activity, they will be directed to a new window. If they want to add an activity, they have to specify the day and the name of the activity to be added. After that, they need to choose the specific starting time so that the necessary notifications can be sent. For removing an activity, they will choose the activity to be removed from a list of activities they added previously.

**2.2.2) Necessary Notifications:** As the users add their activities by specifying a day and an hour, necessary notifications will be sent when the right time comes to remind the users of the activity time. To give an example, the notifications will come based on the activity name whether it is a meeting, birthday, or something sportive.

**2.2.3) Weekly/Monthly Reports:** After each week and month, users will be able to request a report of their previous activities from a “Reports” window that will be implemented. This report will include information about how many activities users completed or missed, how much time did they spend on a certain activity, and other statistics. This information needs to be given by the user at the end of an activity manually. As a result, necessary notifications are going to be sent to the users asking whether they missed or attained that specific activity. Later this will be saved to the database and given back to the users in the reports.

**2.2.4) Add a Repetitive Activity:** This feature will facilitate the lives of the users as many people have repetitive activities such as scheduled meetings every week, sports practices, or family gatherings. Instead of tediously adding these activities every week, this part will make sure that the users can add such repetitive activities and remove them if they want.

**2.2.5) Adding Nationalities:** It is a fact that many nations have various national events such that their nations declare a nationwide holiday. For instance, Turkish people have the 29<sup>th</sup> of October, 23<sup>rd</sup> of April, or 19<sup>th</sup> of May. For the Germans, there are October Fest, Three Kings Day, and many more. Americans as well have significant days like Martin Luther’s King Day and Veterans Day. However, most people don’t know which days of the week these holidays coincide with. This app will automatically mark these holidays with specific markings based on the nationalities. In this way, the users will be able to plan their holidays easier beforehand as these holidays will also be demonstrated in a subsection called “Special Days”.

**2.2.6) Adding Religions:** Similar to the nationalities, users will also have the option to choose their religions from the predetermined options of “Islam”, “Christianity” and “Judaism” as they are the most popular ones. They can choose to ignore this part if they do not believe in any religion. When they choose the religion, the specific and sacred days of the chosen religion will appear on the calendar. This is important because many people value these religious holidays a lot and the starting time of these holidays can even differ from year to year. To exemplify, in Islam, the starting day of the Ramadan Holiday and some other sacred night differ from year to year. However, this app will calculate it automatically and users will be able to see them very easily.

**2.2.7) Specific Colorization:** One of the most fundamental traits of this app is specific colorization. This colorization applies almost any special feature. For instance, the religious holidays and the national holidays each will have colorization unique to their own. Furthermore, the priorities of the activities will be marked with colorization as well. Red will mean the most urgent and important whereas a milder color like green will imply that the activity is less significant. Moreover, the users will be able to whether they passed or missed an activity based on the colorization as well.

**2.2.8) Additional Calendars:** One final aspect of the app is going to be its ability to show other calendar types. It is a fact that most of the world is now using the Gregorian calendar, there are some still important ones to mention such as Islamic or Chinese. With an option on the menu bar, the users will be able to switch to other calendars although this will imply that they are going to lose their previous schedule and have to create it again for the new type.

## **2.3 Target and Benefits of the App**

To begin with, this app targets almost everybody as everyone from a student to a regular employee can use the calendar app to organize their events. Nevertheless, it especially targets the people who have tight schedules and very little time to spare. Such people normally would not even bother using an app to organize their schedules as they will think that as a waste of time. However, this app is going to change their minds as it brings many facilities to the users' lives.

Moreover, there are countless benefits. First of all, religious people can easily keep track of important days. For instance, the Islamic calendar is used in Islam to specify the religious days that make life difficult for most of the people who are accustomed to regular calendars as the days change year to year. With this app, they will no longer suffer from it. Also, people will not be forced to constantly remember which day of the week their holidays coincide with as they can check it out easily with this app. Another benefit will be that the reports will tell the users how efficiently they manage their time, and they will be able to act accordingly to it next time.

## **2.4 Differences from Other Calendar Apps**

It is known for years now that there are tons of different calendar apps out in the market. These different apps have different ups and downs. For instance, some of them have no hourly choosing options or some of them have no event selecting options. However, with this new generation calendar app, these problems are coming to an end. Simply, this app will make it possible to connect nearly all kinds of features from different apps, and in addition to that, this app will include some extra features, too. Here are some comparisons with other apps in the market right now.

### **2.4.1) Fantastical and Timepage**

Firstly, unlike some apps such as "Fantastical" or "Timepage" etc. this new generation calendar app will be free for all users without advertisements. Also, most of the calendar apps are not giving full rights to use all of the features without premium packages. That will not be the case for this app.

### **2.4.2) TimeTree**

TimeTree is a useful calendar app, but it has some major issues that users would not appreciate. First of all, this app's user interface does not appeal to the eye as it is more line and word-based. On top of that, it has a very little character typing limit, especially on the title section. This makes it harder for users to follow their actions because of little given space. In this app, the user interface will be much more colorful and easier to follow because it will be using images and colors instead of just straight-line sentences and the app is going to have lots of spaces to coordinate any activity. Furthermore, in TimeTree, users could not set a general alarm including different events at the same time. This problem is solved in this new generation calendar app and users can set alarms and events anytime they want in a single day and for the upcoming days.

### **2.4.3) Cozi**

Cozi is also a new and family-based calendar app, but this app also has some serious problems that users want to be solved. Unfortunately, Cozi is also mostly based on words and sentences in terms of the user interface. And Cozi does not have a system that helps users to choose urgent events or show important upcoming events with a significant color palette. In this app, users can pick and adjust any event they want with the levels of importance and different colors. Lastly, Cozi has a serious problem with the notifications department. For example, when anything comes up on the calendar, users have to open it up to look at it which is useless because the app's aim should be to warn users when an event comes. It takes unnecessary time and energy to open the app and check what was the activity. In this app, the notifications automatically warn the user with attractive colors and appropriate information.

### **2.4.4) Better parts of this app from others in the market**

Some of the apps are now including important days and national holidays but this is just for one or two cultures. This app will be including these days for more than 2 cultures and these days will be easy to follow on the calendar as they will be shown in the "Special Days" compartment. Other than this, probably all of the apps right now use the regular calendar (Gregorian) but in this app, there will be other options for users to customize their calendar any way they want (Hijri, Chinese, etc. calendars). With this feature, it is aimed to give %100 freedom for users to design their tasks.

### 3. Summary & Conclusions

As a result, this app will make sure that every user fulfills their promised activities, keep track of time, and does not forget special days like birthdays or national holidays by providing the necessary features and a very user-friendly and sophisticated interface. Although there are many calendar apps, none of them are as detailed as this one and more importantly, their user interfaces are difficult to understand. Also, every user will be able to benefit from this app no matter what the age is. This way, it will make sure that this app is going to surpass the other apps in terms of practicality and many other extra features mentioned above.

### 4. References

- Patterson, Ransom. January 6, 2022. *The 8 Best Calendar Apps to Stay Organized in 2022*. College Info Geek. Accessed March 7, 2022. < <https://collegeinfo geek.com/best-calendar-app/> >
- Pot, Justin. November 8, 2021. *The 5 best calendar apps of 2022*. Zapier. Accessed March 7, 2022. < <https://zapier.com/blog/best-calendar-apps/> >
- Keep Productive. January 25, 2022. *Top 8 Calendar Apps 2022* (Video). Accessed March 7, 2022. < <https://www.youtube.com/watch?v=Ip992FqPZFI> >
- TimeTree. September 1, 2014. TimeTree Inc. Accessed March 7, 2022. < <https://timetreeapp.com/intl/en/> >
- Cozi. March 14, 2005. Cozi Inc. Accessed March 7, 2022. < <https://www.cozi.com> >

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