

10000 HABIT TRACKER

SOFTWARE REQUIREMENTS SPECIFICATION

10.04.2020

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1)Introduction

This part includes purpose, scope, definitions and references about 10000 Habit Tracker application. It is also an overview of the requirement specifications document.

1.1) Purpose

This document defines functions and requirements of the 10000 Habit Tracker. This application is for people to easily add and track their habits and this way it also encourages to get new good habits (such as drinking water or doing sports) and/or to quit from bad habits (such as smoking). Besides, it shows a calendar on the main screen that consists all habits saved and conditions (done or forgotten) with daily/weekly options. Thus, it provides easier way of using the app and track themselves.

1.2) Scope

The 10000 Habit Tracker Application provides an easy to use interface to add, remove, update a habit with routine or hobby and good (to gain and improve) or bad (to reduce and quit) options.

System allows user to enter many different kinds of habits and add remainder (optional). It also provides different colors for each habit entered and shows how many minutes spent on that habit on the calendar with the attached color of it according to given amount by user.

Additionally, application stores the time spent on each habit and congrats the user when it achieves some goals (like chain breaking and 21 days).

1.3) Definitions, Acronyms and Abbreviations

- 10000: According to the Malcolm Gladwell's rule which he considers the key to success in any field, is simply a matter of practicing a specific task that can be accomplished with 20 hours of work a week for 10 years which equals to 10000 hours.
- Chain Breaking: Don't Break the Chain (or The Seinfeld Method) is a productivity strategy. It commits you to completing a daily goal for an extended period of time. Each day that you complete your daily goal, you add an "x" to a calendar. Eventually, you build a chain of x's that extends days, weeks, or months. This streak of accomplishments is increasingly

rewarding and dissuades you from breaking the chain. Eventually you're able to build a long-term habit.

- 21 Days Rule: The 21-day rule is a method of doing/saying/being something for 21 days, to make your 'something' become a habit.
- GUI: Graphical User Interface.
- IDE: An integrated development environment (IDE) is a software application that provides comprehensive facilities to computer programmers for software development.
- Application: An application, or application program, is a software program that runs on your computer.

1.4) References

- <https://doist.com/blog/dont-break-the-chain/>
- <https://gailmgibson.com/21-day-rule-works/>
- https://en.wikipedia.org/wiki/Integrated_development_environment
- <https://techterms.com/definition/application>
- <https://juristr.com/blog/2009/03/uml-use-case-extend-and-include/>
- <https://www.uml-diagrams.org/use-case-include.html>

1.5) Overview

The rest of the document includes constraints, requirements and analysis, use cases and diagrams of the application that describes the process.

2) General Constraints

- As long as the app is on the phone,
- the user will be able to improve their habit and track them.
- Project will be made on Android studio 3.6.1
- Java language will be used.
- There will be 3 computer engineers working on 10000 HABIT TRACKER PROJECT.
- There can not be more than 30 colours.
- We will use SQLiteDatabase for Database.

2.1) Software limitations

- The user telephone need android 6.0 (Marshmallow) or greater android 6.0 (Marshmallow)
- Android studio 3.6.1 with Java shall be used in the development of the 10000 HABIT TRACKER

2.2) Hardware limitations

- Each telephone should need an android system capable of running android 6.0 (Marshmallow) or greater than android 6.0 (Marshmallow).
- The database should be stored on an android telephone

3) Assumptions and dependencies

3.1) Assumptions

- If the given time is enough, we will try to decrease android 6.0 requirement,
- We want to reach more user on android market, therefore if we can decrease android 6.0 requirement,
- We will reach more users.
- If the given time is enough, we will try to add some of animation.
- When we finish the application, the users can add their habit and improve habits and track them.

3.2) Dependencies

- The application should allow to follow multiple habits.
- The application interfaces should be done before coding.
- The application shall be done before testing.

4) Requirements

4.1) Functional Requirements

- The system must be able to allow the user to add or delete a habit.
- The user will be able to enter the name of the habit.
- The system must be able to allow the user to view the daily habit plan (the calendar).
- The system must be able to allow the user to view the weekly habit plan.
- The system must have the option to permit the user to enter the time spared for a specific habit.
- The user must be able to choose a color for each habit.
- The app must work without internet.
- The user will be able to set an alarm to habit(s) if he/she wants.
- The user will be able to add 30 habits at most.
- The system must be able to allow the user to view the screen that the list of habits he/she goes on well or not.
- The app will congratulate the user if a habit's time reaches to 10000 hours.
- The app will be able to used both in English and Turkish.

4.2) Non- Functional Requirements

4.2.1. Usability

- System shall be a mobile application.
- System shall provide a graphical user interface.

4.2.2. Availability

- System shall be accesses 24 hours a day, 7 days a week with 90% uptime.

4.2.3. Reliability

- System has 84% reliability for a month.

4.2.4. Performance

- Most operations (add/remove/update habit, add time etc.) should be done in at most 6 seconds in the last 2 year's hardware.

4.2.5. Flexibility

- User shall be able to select preferred language and also change it all the time.

4.2.6. Maintainability

- Developer who is experienced at least half a year supporting this application shall be able to add a new feature and update some part of it within less than 6 days.
- Customers feedbacks or problems shall be sent through email service. Reports shall be analyzed and responded 85% of the reports within a day.

Work-sharing between team members

Kevser İldeş	Introduction, Non-Functional Requirements
Malik Türkoğlu	General Constraints, Assumptions&Dependencies
Çağla Şen	Functional Requirements, Use Case

Use Case Diagram

Is displayed in the next page.

10000 Habit Tracker - use case



User

Add a habit

Delete a habit

View habit list

View daily calendar

View weekly calendar

View monthly calendar

Change language

<<extend>>
{if user tries
to add more
than 30 habits}

<<include>>

<<include>>

<<include>>

<<include>>

Enter the time
spared for a
habit

<<extend>>
{if the habit's
time reaches to
10000 hours}

<<extend>>

<<include>>

<<include>>

Display an
Error

Update habit
history

Congratulate
the user

Show the
habits that
goes on well

View the
reporting
screen

Show the
habits that
goes bad



User Database

