SOFTWARE REQUIREMENT SPECIFICATIONS

Project Topic: Countdown Application- Countdown Time

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1. INTRODUCTION

The section in this document provide the software requirements specification for countdown application – Countdown Time. This include the purpose of the document, scope and requirements like functional and non-functional of application. The scope that are listed are focus on user and system scope. The software requirements which are required in both user and development side are mentioned. The document also present the software designs that consists of ERD (Entity Relationship Diagram), relational schema, sequence diagram and use case diagram.

a. Purpose

The purpose of this document is to form basis for my entire project enhancement. It gives the framework which should be followed while developing the application. Primarily the documentation gives some reference ideas about the application for developing in terms of system, user interface and database of the application.

b. Scope

User scope

Class level (College). The android app is based on class-level (college) utilization in which it will help students to keep track of their assignment datelines and important events. It is advantageous for college students who wants to balance their study time with their free time. Not only that but also to learn managed time efficiently.

System Scope

- To develop mobile application dealing with efficiency in time management.
- Offline based: It is accessible from anywhere and anytime.
- Notify: It will alert the user before the time or on the time of the event.
- Cost free: All the features of the application is free.
- Organize the time schedule: The time will organized and based on the priority of the events or task. The user can also categorize their timer.

2. REQUIREMENTS

a. Functional Requirements

Create category and countdown: A student can group the countdown that they have create in category. There is no limit in the types of category that a student want to form. With this property, the countdowns can be classified in class where it will be trouble free to search any countdown. The countdown can be created either as date for any event and time for any schedule. There is flexibility, in creating the countdown as the user can create the countdown for short amount of time or for long term. The event and time can be highlighted to give them emphasis of importance.

Edit category and countdown: Any countdown and category once created can be edited without restriction of it being on going action. The changes can be done to the highlight of the countdown and category.

Delete category and countdown: The categories and countdowns contain in the application are not for permanent storage, it can be deleted. There are two options of deleting them are the user can selected all to delete them wholly or they can delete one at a time.

Notification: Every countdown have option for notification to remind a student about events or schedule. The notification is optional for the user, if a user want to remind of the events or schedule, they can turn on the notification button. The notification have optional like; to notify user before the events occur or on the date or time the event happens.

b. Non-functional requirements

Usability: This mobile application is effective and efficient which means that user can get what they are looking for quickly and easily. The user interface is easy to use and understand for the student since it simple and no extra knowledge is needed to use it.

Reliability: The application can access from anywhere and anytime.

Supportability: The application can be used in any android mobile phone which has the android version above Android 6 and since most people uses the android phone and it being cheap.

c. Software Requirements

- Android Studio Version 4.1.2
- Android SDK
- Java Development Kit
- SQLite Server
- Proto.io

3. HARDWARE REQUIREMENTS

User Requirements

- Android version 5 and above can be supported
- 2 GB and above RAM is needed.

Development Requirement

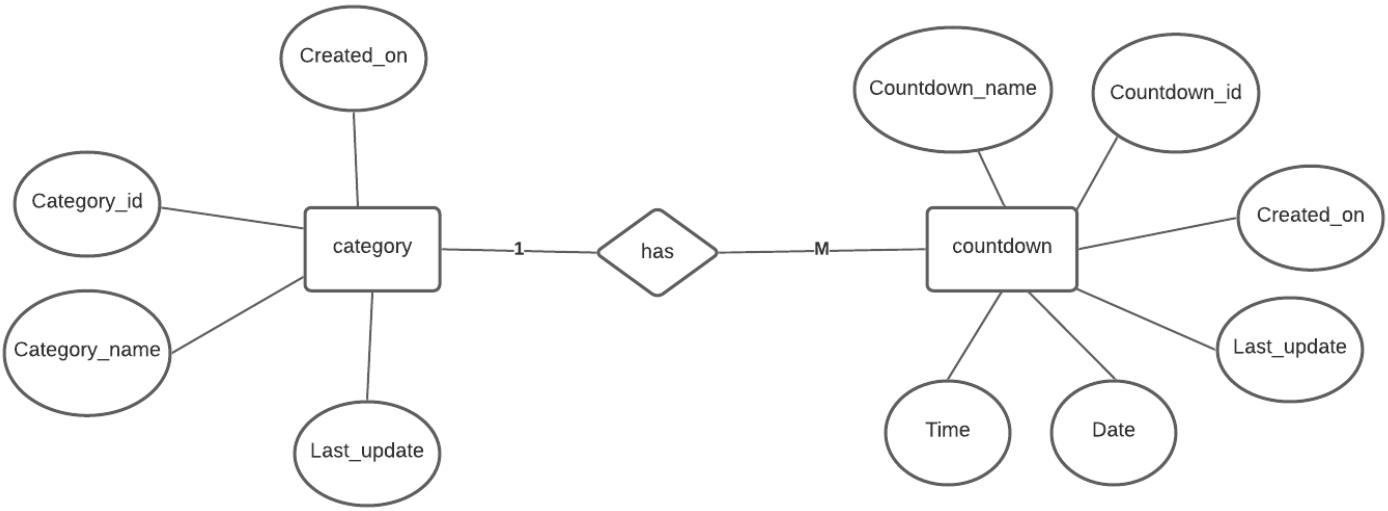
- Processor: Intel core i3 or above processor
- RAM: 4GB and above
- Hard Disk space: 256 GB and above
- OS: Windows 7 and above.

4. SYSTEM DESIGNS

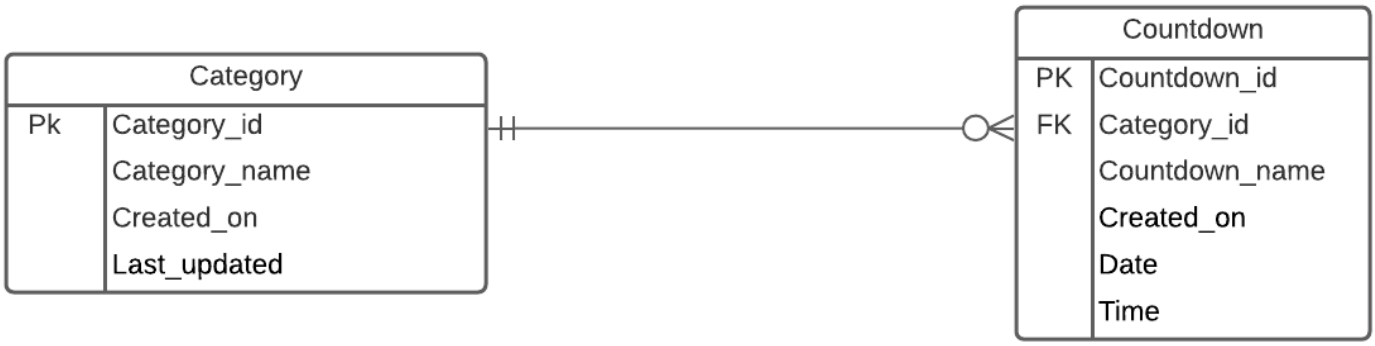
a. ERD (Entity Relationship Diagram)

This entity relationship diagram shows how the database will store the category and countdown created by the student. It explains how category is related to countdown; in one category can contain more than one countdown. The category have four attributes which are category id, category name, created on and last update. The countdown have six attributes which are countdown id, countdown name, created on, last update and time and date. The created on attribute explains when does the

category and countdown has been created. The last update will show the latest edit of the category and countdown. Time and date are the two ways the countdown can be created.



b. Relational Schema

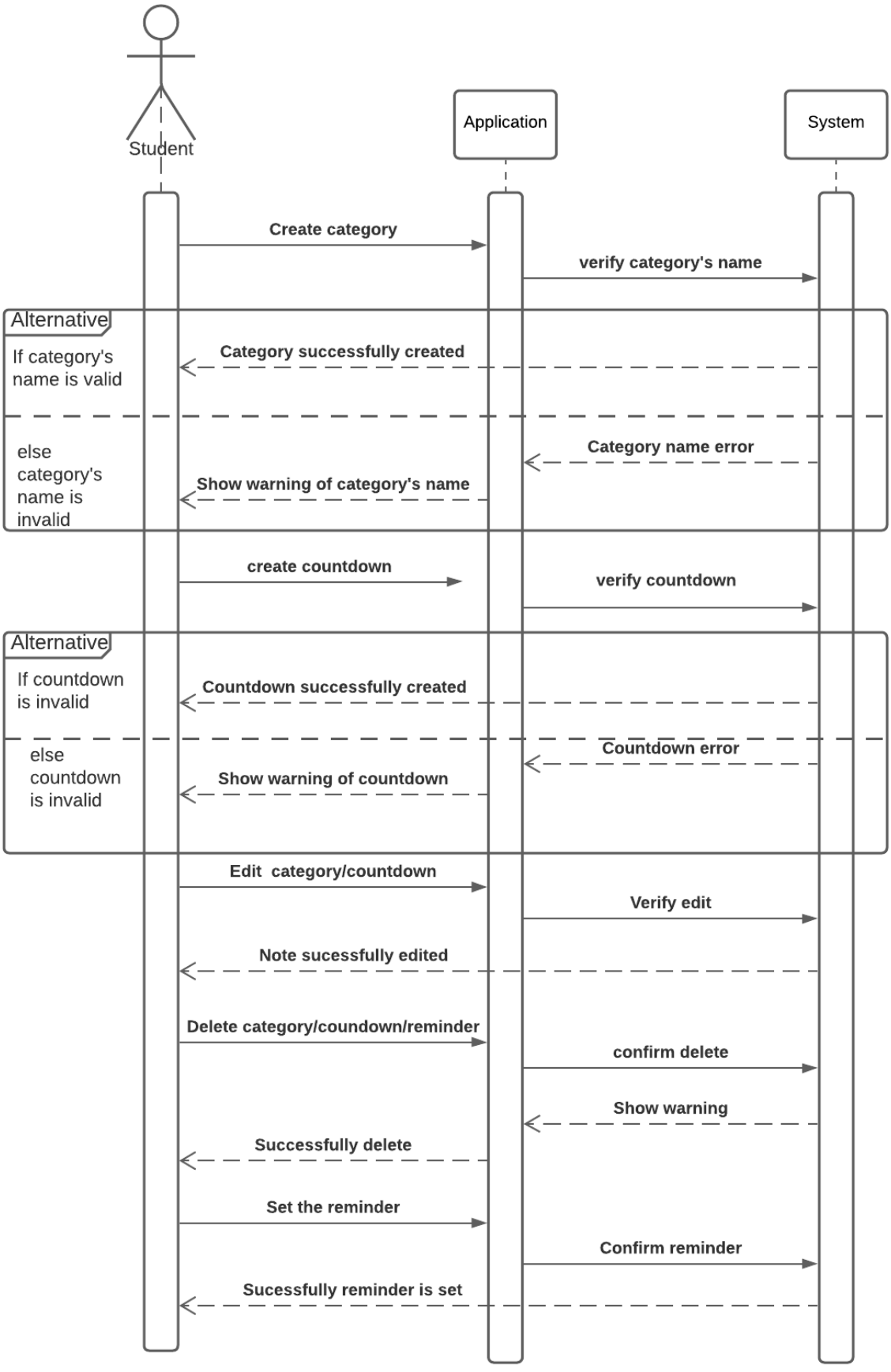


The relation schema of the application show the organization of the data that are contain in two tables which shows the link of the data that are common in two tables. It is much similar to entity relationship diagram.

c. Sequence Diagram

The sequence diagram describe how the messages will flow from student to the application. The student will create the category which be verify by the system of the application to see whether the category's name is error or not. If it is not then it will be successfully created. Then inside the category, the countdown will be created then it will verify the countdown's name, time and the date. If it gets in any of them, there will message of it being error. The category's name and countdown's name, time and date can be edited and deleted too. Before the deletion, there will be warning about deleting it permanently. The reminder will set for any countdown that has been created.

Countdown App - Countdown Time



d. Use case Diagram

The use case diagram will explain the functionality of the application. This shows how user which is a student with the system of the application. The student will create category in which countdown can be created. The countdown can be created in two ways which date and time. The countdown and category can be edited and deleted. The search can be done through time, date and category and notification can be set based on time and date which can be edited.