SOFTWARE REQUIREMENT SPECIFICATIONS

Project Topic: Expense Tracker

Submitted by:

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Introduction

The document provides a software requirements specification for the Expense Tracker. It includes purpose of the document with scope, aim and objectives. The document will also include functional requirement and non-functional requirements.

a) **Scope:**

Limited to GCIT (Gyalpozhing College of Information Technology)

b) **Purpose:**

The purpose of this project is to keep track of your expense in easy and convenient way.

c) **Aim:**

To develop a mobile application where users can keep track of their day-to-day expense.

d) **Objectives:**
1. To keep track of daily expenses and budgeting.
2. Need not have to carry pen and paper to store information.
3. To maintain as your transparency.

Functional Requirements:

User:

1. Add Category: allow user to add categories of their own.
2. Add Amount: can add amount.
3. Add Date: can add date of the expenditure.
4. Delete Expense: User can delete expense with category, amount and date.
5. View Graph: can view chart (pie chart) of the expense.

Non-functional Requirements:
Some of the non-functional requirements of our application are:

1. Portability

   This application is portable as it can be used in different platforms where and support in all the platforms of android versions.

2. Usability

   The user will able to use the application very easily since the naming convention is

   written in simple language and there will be proper instruction on each page.

3. Availability

   Expense Tracker is an application that will have many expense and can view all the expense by user.

Software Requirements:

The technology and version to be used for developing this application is

A. Android studio with version:
   Version: 4.1.2

   Gradle Version: 6.5

B. JDK 15
C. SQL lite

Hardware Requirements
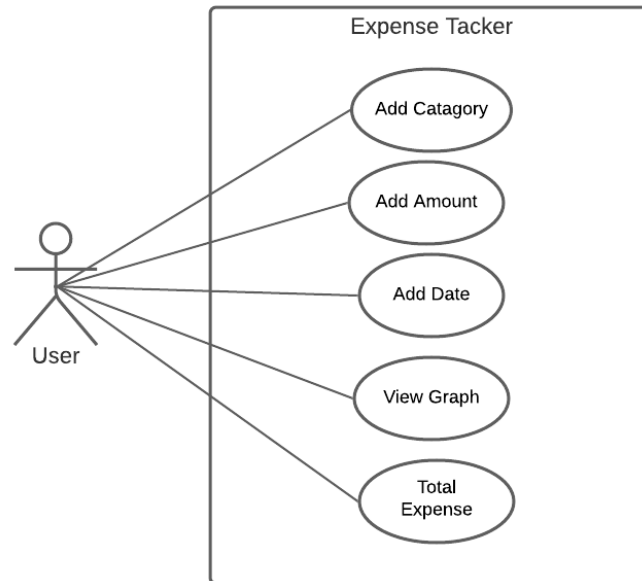
Developer requirements:

1. Laptop/Desktop (Microsoft Windows 7/8/10 (64 bits)/linux/mac)

2. 4 GB RAM minimum, 8 GB RAM recommended

3. 1280 * 800 minimum screen resolution

4. Processor 2.00GHz * 4

5. Android smart phone (as emulator)

**User requirements:**

Android smart phone

System Design

1) **Use case diagram**

In this application, user is a primary actor where user can add expense of their expenditure. Firstly, here user can define their own categories for expense type like food, clothing and groceries where they have to enter the amount that has been spent with date. It will also generate the expenses in pie chart and can save it as the report.

2) **Entity Relationship Diagram**
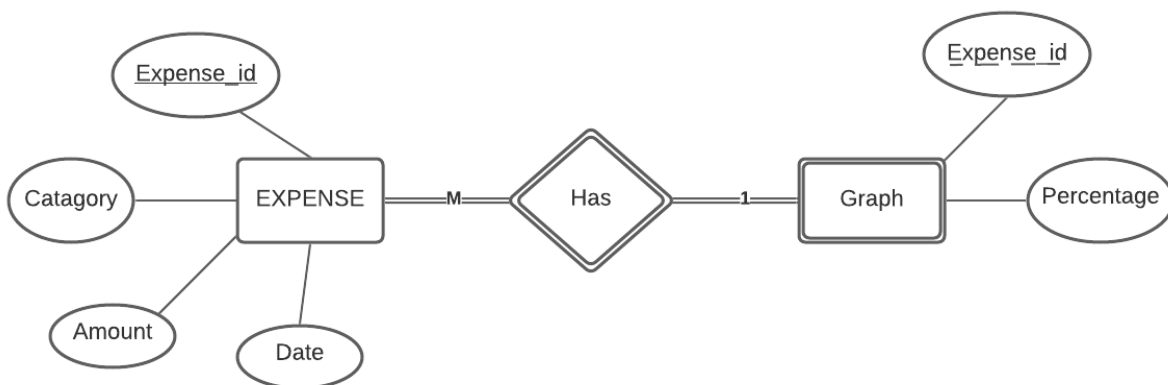
This diagram describes the overall design of our system. Expense Tracker consist of one strong entity/entity (Expense) and one weak entity (Graph). Entity Expense has attribute Expense_id as

a primary key, Category, Amount and Date. Weak entity Graph has Percentage and Expense_id as partial key.

The relationship between Expense and graphs is many to one as many expenses can view in one graph.

3) Sequence Diagram
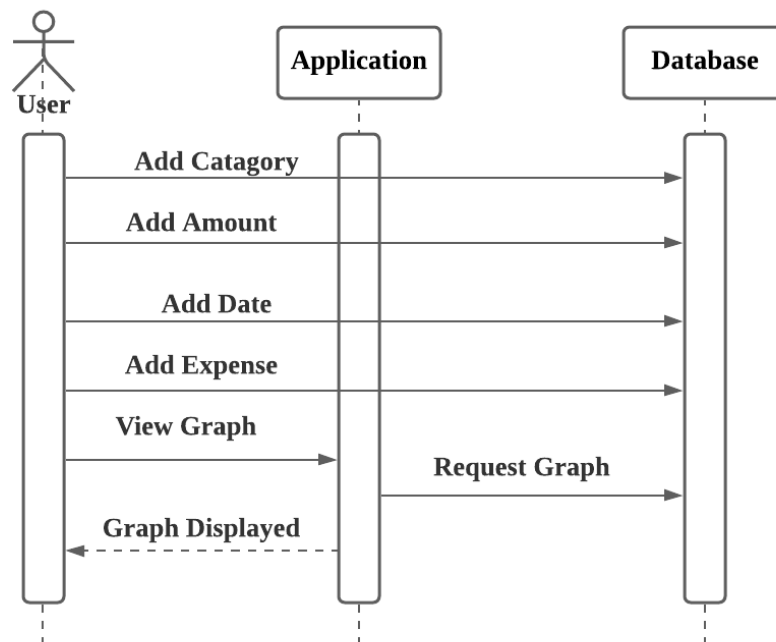
Firstly, user can add category of their own like food, clothing, etc. with expenditure and date. Expense will store in database and can view expense with amount date and category. User can view Total expense of their expenditure and also view graphs where they can analysis where the money is spent.

4) Schema Diagram

Expense

Expense_id	Amount	Category	Date

Graph
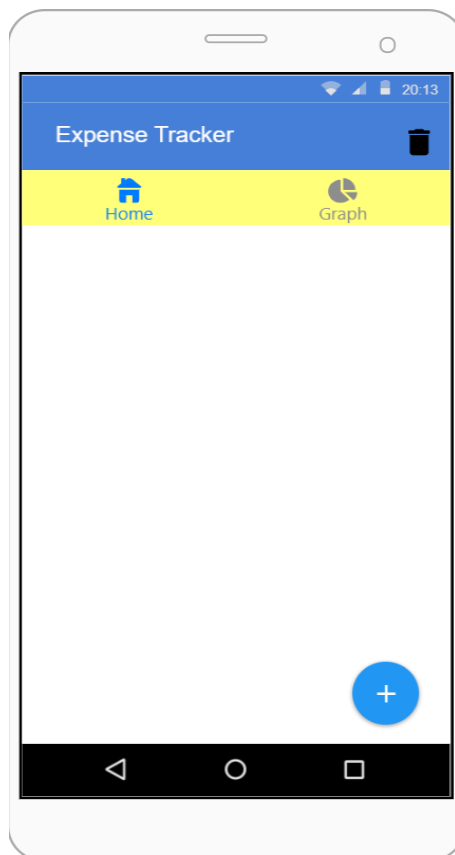
Expense_id	Percentage

This application consists of two table: Expense and Graph.

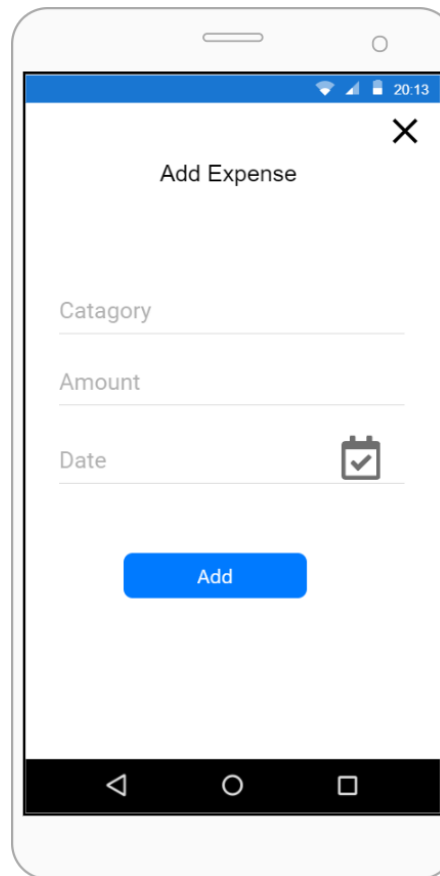Table Expense has four columns with attribute name: Expenese_id as primary key, Amount, Category and Date.

Table Graph has two columns with attribute name: Expense_id as a foreign key and Percentage.
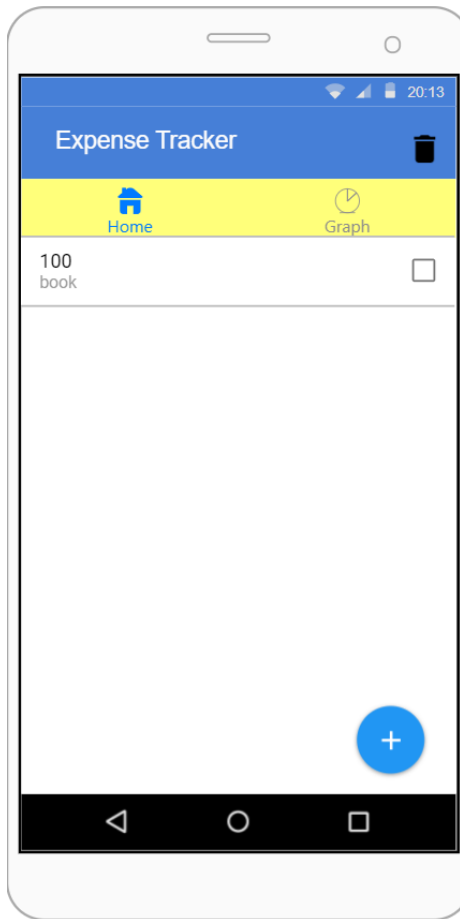
Prototype

1.

2.

3.

4.