VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"JnanaSangama", Belgaum -590014, Karnataka.

PROJECT WORK-3 REPORT
on

Split It

Submitted by

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Under the Guidance of
Prof. Madhavi.R.P
Associate Professor, BMSCE

in partial fulfillment for the award of the degree of
BACHELOR OF ENGINEERING
in
COMPUTER SCIENCE AND ENGINEERING

B.M.S. COLLEGE OF ENGINEERING
(Autonomous Institution under VTU)
BENGALURU-560019

Oct-2022 to Feb-2023

B. M. S. College of Engineering,

Bull Temple Road, Bangalore 560019

(Affiliated To Visvesvaraya Technological University, Belgaum)

Department of Computer Science and Engineering

CERTIFICATE

This is to certify that the project work entitled "**Split it**" carried out by **CHIRAG MAHAVEER CHIVATE (1BM20CS200), MANASA DANDA ANILKUMAR (1BM20CS207), LESTYN CALIX MORAS (1BM20CS206) AND PRANAV MADHUKUMAR NAIR (1BM20CS211)** who are bonafide students of **B. M. S. College of Engineering.** It is in partial fulfillment for the award of **Bachelor of Engineering in Computer Science and Engineering** of the Visveswaraiah Technological University, Belgaum during the year 2022-2023. The project report has been approved as it satisfies the academic requirements in respect of **Project Work-3 (20CS5PWPW3)** work prescribed for the said degree.

Signature of the Guide
Prof Madhavi.R.P
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BMSCE, Bengaluru

Signature of the HOD
Dr. Jyothi S Nayak
Prof.& Head, Dept. of CSE
BMSCE, Bengaluru

External Viva

Name of the Examiner — Signature with date

1._____ _____

2. _____ _____

B.M.S. COLLEGE OF ENGINEERING

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

DECALARATION

We, CHIRAG MAHAVEER CHIVATE (1BM20CS200), LESTYN CALIX MORAS (1BM20CS206), MANASA DANDA ANILKUMAR (1BM20CS207), PRANAV MADHUKUMAR NAIR (1BM20CS211), students of 5th Semester, B.E. Department of Computer Science and Engineering, B. M. S. College of Engineering, Bangalore, hereby declare that, this Project Work-1entitled "Project Title" has been carried out by us under the guidance of Prof. Madhavi.R.P, Associate Professor, Department of CSE, B. M. S. College of Engineering, Bangalore during the academic semester Oct 2022- Feb 2023.

We also declare that to the best of our knowledge and belief, the development reported here is not from part of any other report by any other students.

Signature:

CHIRAG MAHAVEER CHIVATE (1BM20CS200)

LESTYN CALIX MORAS (1BM20CS206)

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1. Introduction

1.1 About the application

Have you ever paid the bill at a restaurant for a group of friends or split the expenditure on vacation with a group of friends? Have you struggled to split the bill amongst the group?
This is where our app comes into the picture especially when each person has got something
Our mobile application called “SPLIT-IT” has been designed for all users to manage and split their expenditures. It is the easiest way to share expenses with friends and family and stop stressing about “who owes who”. It’s incredibly easy to set up and use across all platforms. SPLIT-IT can be used by anyone, anywhere at anytime. This concept is helpful for students, friends and groups who go out for trips, meals, or parties.

1.2 Features

- ✓ The users will have their own sign up / login page which can be used to access the features of the application and hence provide a personalized experience.
- ✓ Our application efficiently splits the expenses according to one’s consumption.
- ✓ The application has been designed to consider factors such as discounts, service charges and then compute the expenses.
- ✓ The user interface has been designed in a very simple manner that enables the user to enter the details of items purchased and then provide other information such as number of units, unit price etc. if required.
- ✓ The application displays the breakdown of the entire expense and lists how much each person has to pay.

1.3 Functional Requirements:

- Calculations should be precise and accurate.
- Display amount split for each person present.
- Be compatible with android devices.
- Downloadable from playstore.

1.4 Non Functional Requirements:

- Be user friendly.
- Consume less storage.
- Should execute quickly.
- Be battery efficient.

2. Design Layouts: Screen Shots of Mobile App

2.1 Login

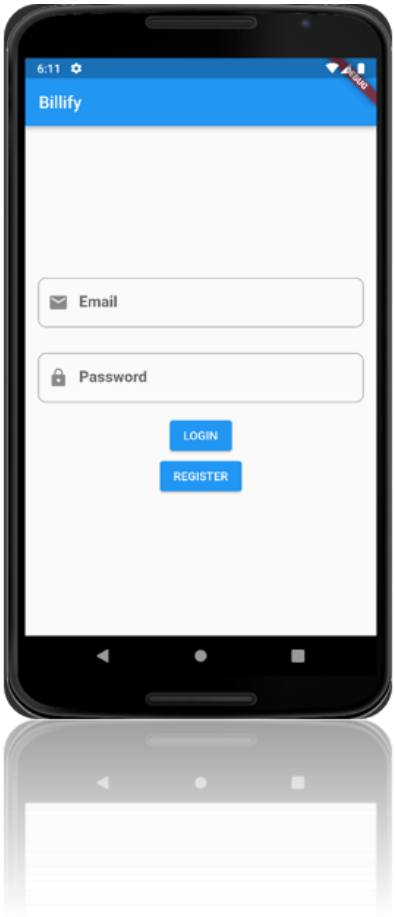

Fig 2.1 Login Screen – This page was developed to provide the user with a personalized experience of the app

2.2 Home Webpage

Fig 2.2 Home Page – The opening age of the app

2.3 Application in use

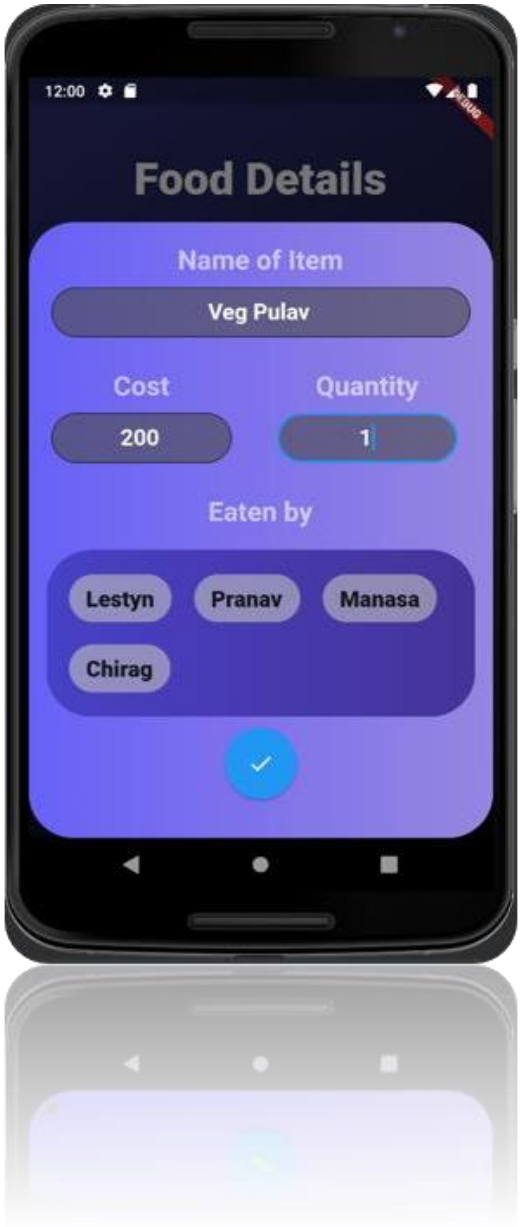

Fig 2.3 Food Details – Interface to enter the food details like name of the item, cost and quantity

Fig 2.4 Food Details – The total price of each dish

2.4 Final Output

Fig 2.5 Split Bill – Display the total bill of each person

3. Database Table Screen shots

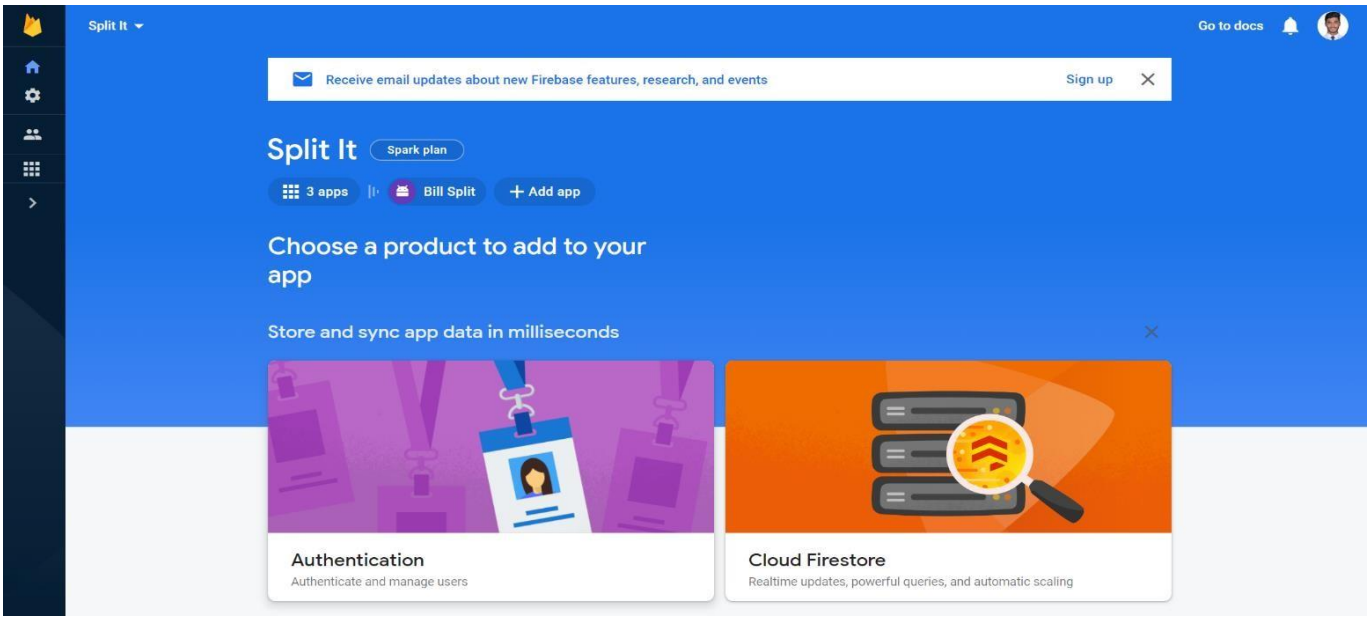

Fig 3.1 Firebase

Fig 3.2 Firebase database table

As and when a user is registered in the login page a record is saved in the database.

4. Software Requirements

- Operating Systems: Windows 10 or later (64-bit), x86-64 based.
- Disk Space: 1.64 GB (does not include disk space for IDE/tools).
- Tools: Flutter depends on these tools being available in your environment.
- Windows PowerShell 5.0 or newer (this is pre-installed with Windows 10)
- Git for Windows 2.x, with the Use Git from the Windows Command Prompt option.

5. Learnings from the Project

This was our project ‘Split It’, which is a Bill Splitting App which will benefit the users by providing a smooth and easy to use interface to split the expenses among a group of people. During this project we learnt that our app overcomes the drawbacks of the current system where the present apps split equally. But our app ‘Split Wise’ splits the bill according to the consumption. We learnt that though our app we can fill in the gap created by the loophole of difficulties in manually splitting a bill.

- ✓ How an app is developed in Front End using Flutter and Dart.
- ✓ How can we make an attractive user interface through animations.
- ✓ How can integrate the Front End with the Back End ie. Firebase (in this project)
- ✓ How validation work behind the scenes

6. References

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