INTRODUCTION TO SOFTWARE ENGINEERING,

PROJECT 2

UNIVERSITY OF GHANA DATABASE PROJECT (PART 1)

GROUP MEMBERS

1. **JAYMILLS PRINCE -10890540**
2. **ABOAGYE FAFA – 10922580**
3. **NII GYAN CHRISTIAN – 10880660**
4. **ANTWI-BOASIAKO MAAME YAA HENEWAA – 10889628**
5. **NKRUMAH AKUA SERWAA – 10912305**

CONTENTS

- ABOUT THE PROJECT (INTRODUCTION)
- PROCESS INVOLVED
- TOOLS AND RESOURCES
- CONCLUSION

PURPOSE OF THE PROJECT

The purpose of this project is to develop a relational database that calculates the outstanding fee of students given the school fees to be paid and the amount paid by the student. The outstanding fee for a particular student was to be stored and displayed as a JSON array.

The Software was to store the following functionalities:

1. Student Personal information such as full name, course, id and others.
2. Fees students are to pay and the amount paid.
3. Course Enrollment of students.
4. Lecturers and the various courses they teach.
5. Lecturers and their TAs for various courses.

RESOURCES USED:

POSTGRESQL (PgAdmin).

PROCESS:

1. We created a database and some schemas where necessary.
2. We created tables to implement all the functionality stated above.
3. We then created scripts that populate the tables with sample data.
4. Database functions to calculate the outstanding fees for each student were created in our database and the output returned in JSON array.

FLUTTER (PART 2)

ABOUT

The project was aimed at copying data from a link with a JSON array and displaying it on a webpage.

PROCESS USED

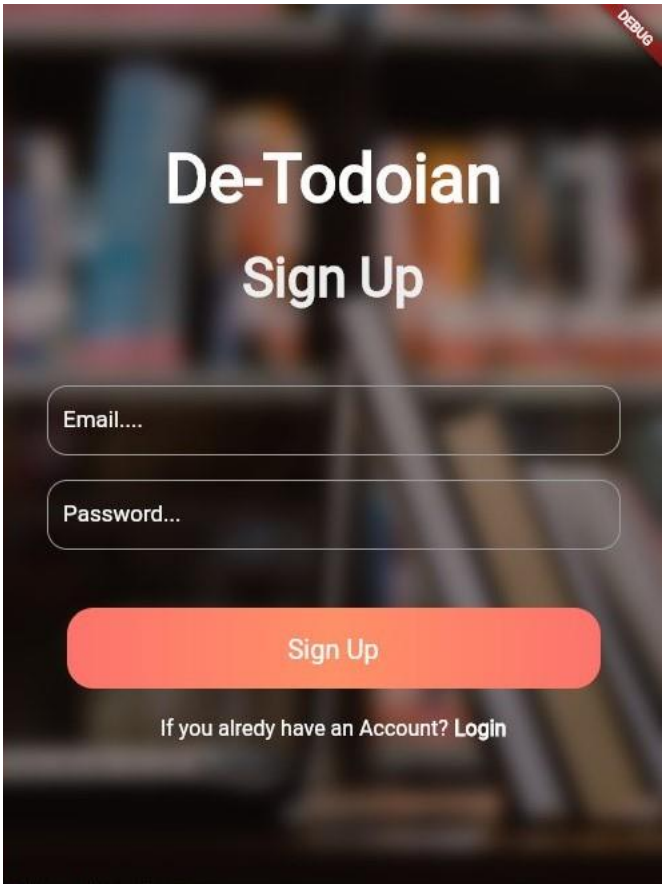
A list from JSON data (called a map because it has a list with objects and these objects were mapped to their various lists from the link) was copied from a webpage using a link that was given us. A flutter code was written using the data from the link and this data was put into another map called the to-do list map where the data was removed and displayed on the screen. We displayed the data from the JSON link on the UI and included the following Title, data, due date, URL and task Status (whether completed or pending).

RESOURCES USED

- VISUAL STUDIO CODE
- DART
- FLUTTER SDK
- FIREBASE

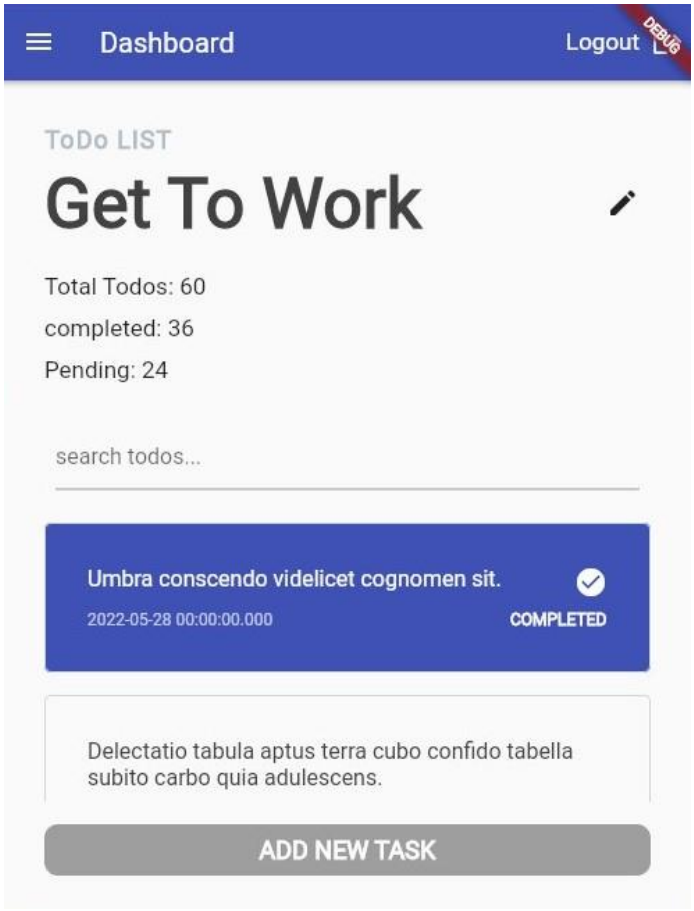
SIGN-UP PAGE

This page is where a person who does not have access to the site registers and creates a new user account. Here, a user inputs a valid email address and a strong password (at least 6 to 8 characters which include alphabets, numbers, symbols and other special characters) which are stored for authentication and later used to access the existing account through verification and validation on the Log-in page where the user will be asked.



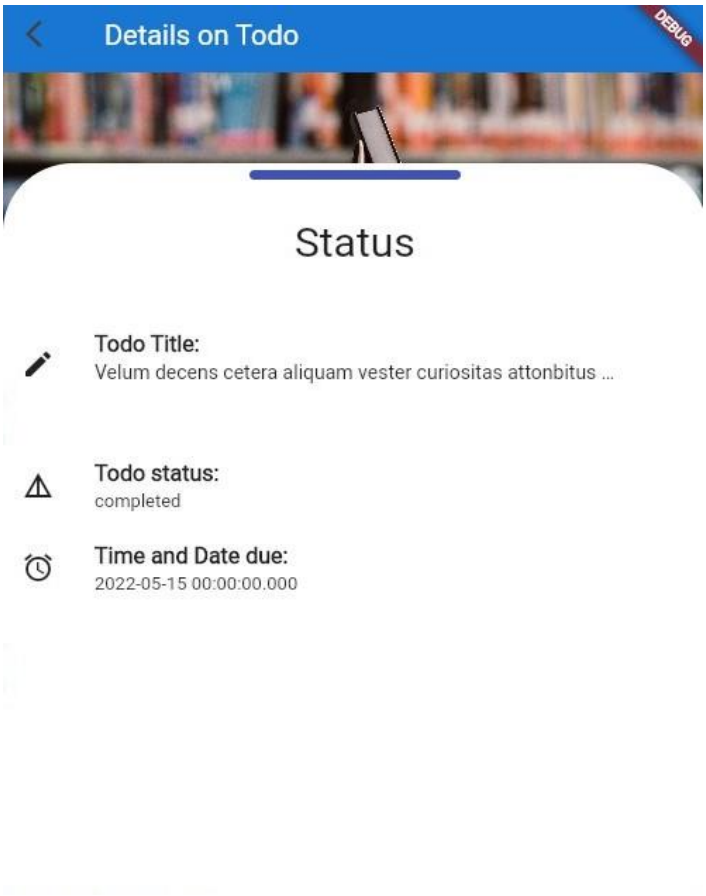
DASHBOARD

The dashboard page shows the total tasks (to-dos); the number of tasks completed and the tasks to be completed. It also has the logout button. The dashboard serves as the homepage for the website.



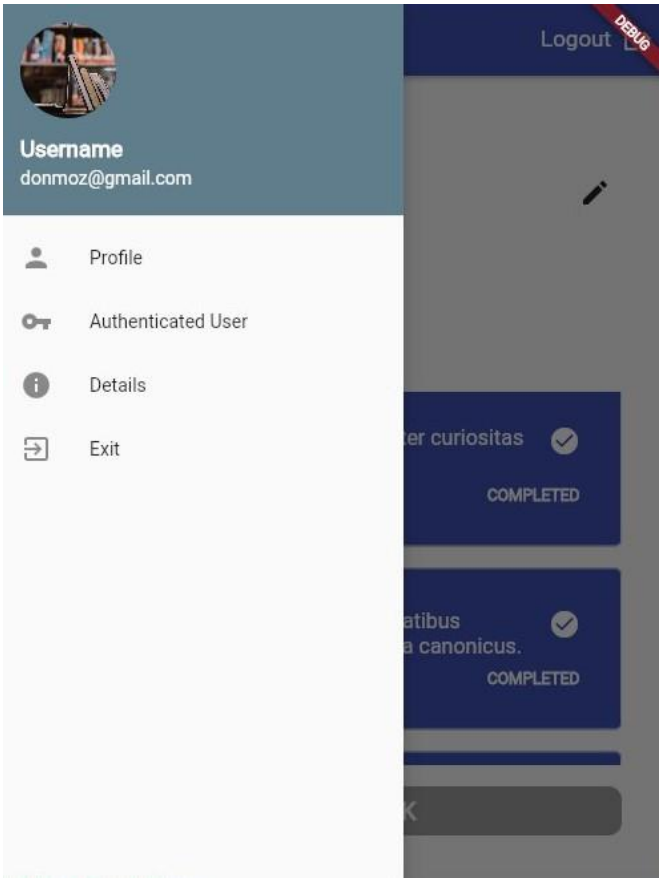
STATUS PAGE

This is the Status Page and it is the page a user is sent to when he or she clicks on a task to open it. It shows the user the details of the task. It shows the title of the task, status of the task; that is, if it is pending or has been completed, the time it was uploaded, the due date and time and when it was completed.



THE SIDE BAR

This part has the Profile aspect where a user's profile is viewed, the authenticated user, the details of opened tasks and the exit section where a user that exit out of an opened task.



THANK YOU