

**CS 232**

**INTRODUCTION TO DATABASE**

**PROPOSAL**

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**INTRODUCTION:**

Since the start of our Academic Journey at GIKI, the students have faced a problem regarding travel and transportation means available within the vicinity of the university and outside. Many students have faced problems regarding booking tickets for the GIKI bus and are unable to travel to their respective destinations.

To solve that problem, we have come up with the perfect solution. We have decided to centralize all the transportation means to travel outside and back to the Campus by developing a Mobile Application using Flutter/Dart programming Language. Also, to save the data of the students, since this application will be directly linked with the university’s database, we will be using SQL lite with the addition of SQL in it.

The Transports included in the app; are all transports provided by the institute to the students (Buses, Vans, coaches, etc.), private cars, and drivers available on rent/fare and local Rickshaws.

This will help the students to worry less about the complexities and availabilities of the transport as all the convenience will be available to them with the touch of a few buttons on their smartphones and in turn, they can focus more on their studies and worry less about this problem.

**Data characteristics:**

Firstly, the user is going to sign up with the following information:

* First Name
* Last Name
* Email (GIKI Email)
* Password

GIKI email is going to serve the purpose of the primary key and will also be used as a login ID of the user. Moreover, our database is going to save the cities and their respective bus stop which is going to be in varchar data type. Furthermore, the database is also going to store the following details of drivers:

* Driver’s Full Name
* Driver’s contact number
* Car registration number

**Database Schema:**

There is going to be a table with the name of the User which is going to store the first name (varchar), last name(varchar), GIKI email(varchar), and password(varchar). GIKI email will act as a primary key as it is going to be different for every GIKI student. Then, there is going to be another table BUS which will store the details of buses and there is going to be

another table named DRIVER will store Driver’s Full Name, Driver’s contact number, and Car registration number.

**METHOD:**

The application will be based on Flutter/Dart-based UI whereas the supporting database that will be used is SQL lite with hints of SQL raw. The database will be linked using packages that are available on the internet. The basic package is called SQFlite which is used to link the database with the front-end.

The database will be designed using the methods that we are being taught in the course.

**TOOLS:**

The development environment will be consisting of:

1. Microsoft SQL Server Management Studio
2. VS Code
3. Android Studio

The above development environments provide us with the built packages and debuggers and syntax error detection in the code.

**Conclusion:**

Transportation in GIK is a major issue and a completely unnecessary burden on students. We seek to address this problem through our mobile application which we have chosen to develop using Flutter and SQL lite will be used as a supporting database. The IDE used will be Visual Studio Code and Microsoft SQL Server Management Studio will be used to test the queries which we will use to manipulate or define data.