

# Real-time Location Tracking for Electrical Buses - CMVC

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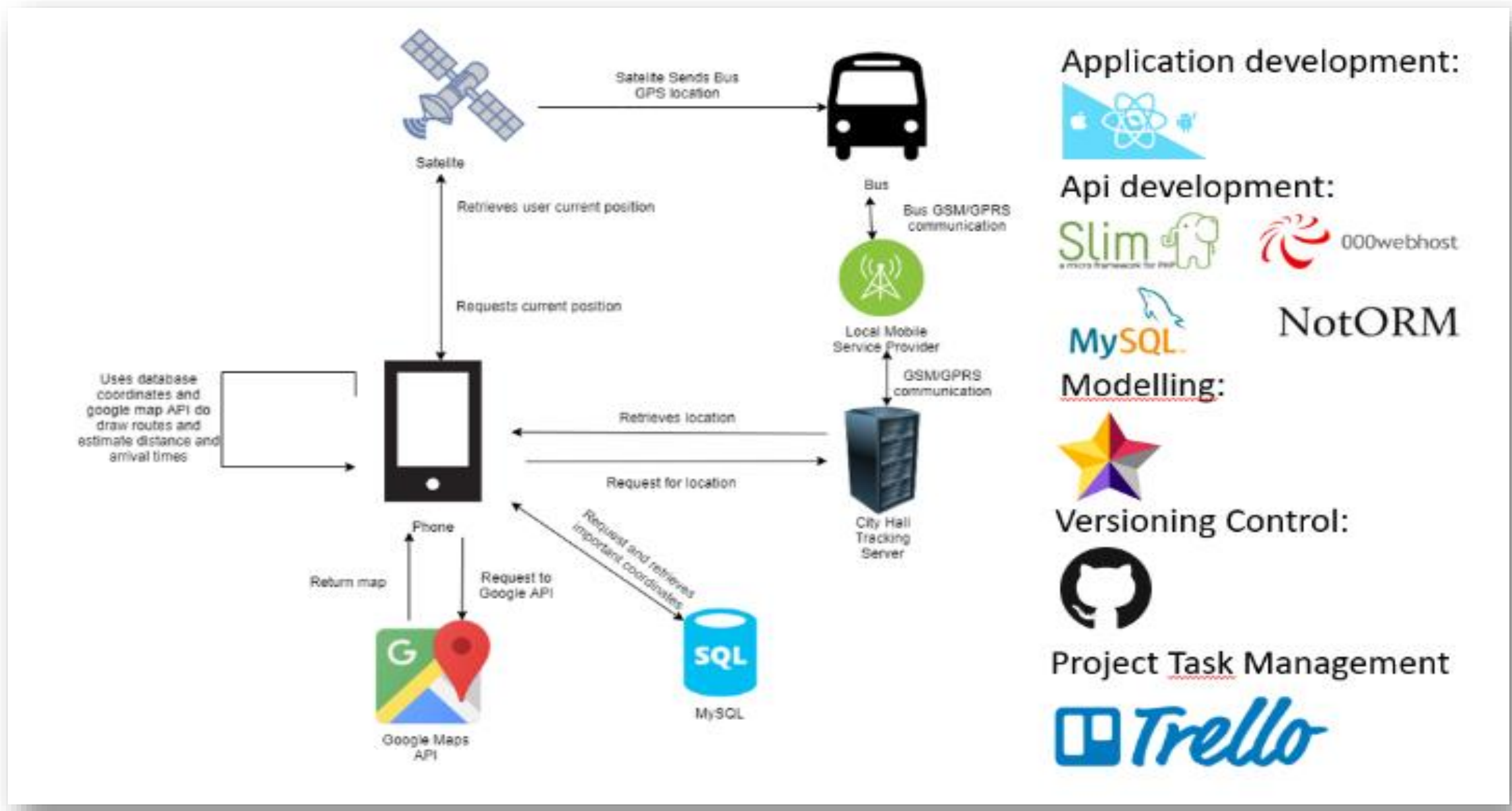
# Polytechnic Institute of Viana do Castelo



Graduation in  
**INFORMATICS ENGINEERING**  
**Curricular Unit: System Integration**

# Introduction

City Hall of Viana do Castelo provides electrical buses, with fixed route and affordable price, to its population. These buses have no fixed stop and their arrival time to certain points may vary depending on traffic situation, climatic conditions and other occurrences. To assist the population on the tracking of these buses a mobile application was developed, not only to allow users to get information about buses' distances and estimated arrival time to the users' location but also to assist visually impaired people to catch these buses and being able to move around the city whilst knowing where they currently are.



## Architecture

## Objectives

- The following project had the main goal to develop a mobile application in order to help people using the electrical buses of Viana do Castelo.
- This application can get the operational buses position, in real-time, to give a perception to the user about their positioning.
- For those who present visual impairment the application contains information about fixed stops, so it is easier for them to catch the bus.
- The application can calculate the distance and estimate an arrival time using the bus real-time positioning tracking and the user's selected route place.



## First Page – Buses Page



## Inside bus



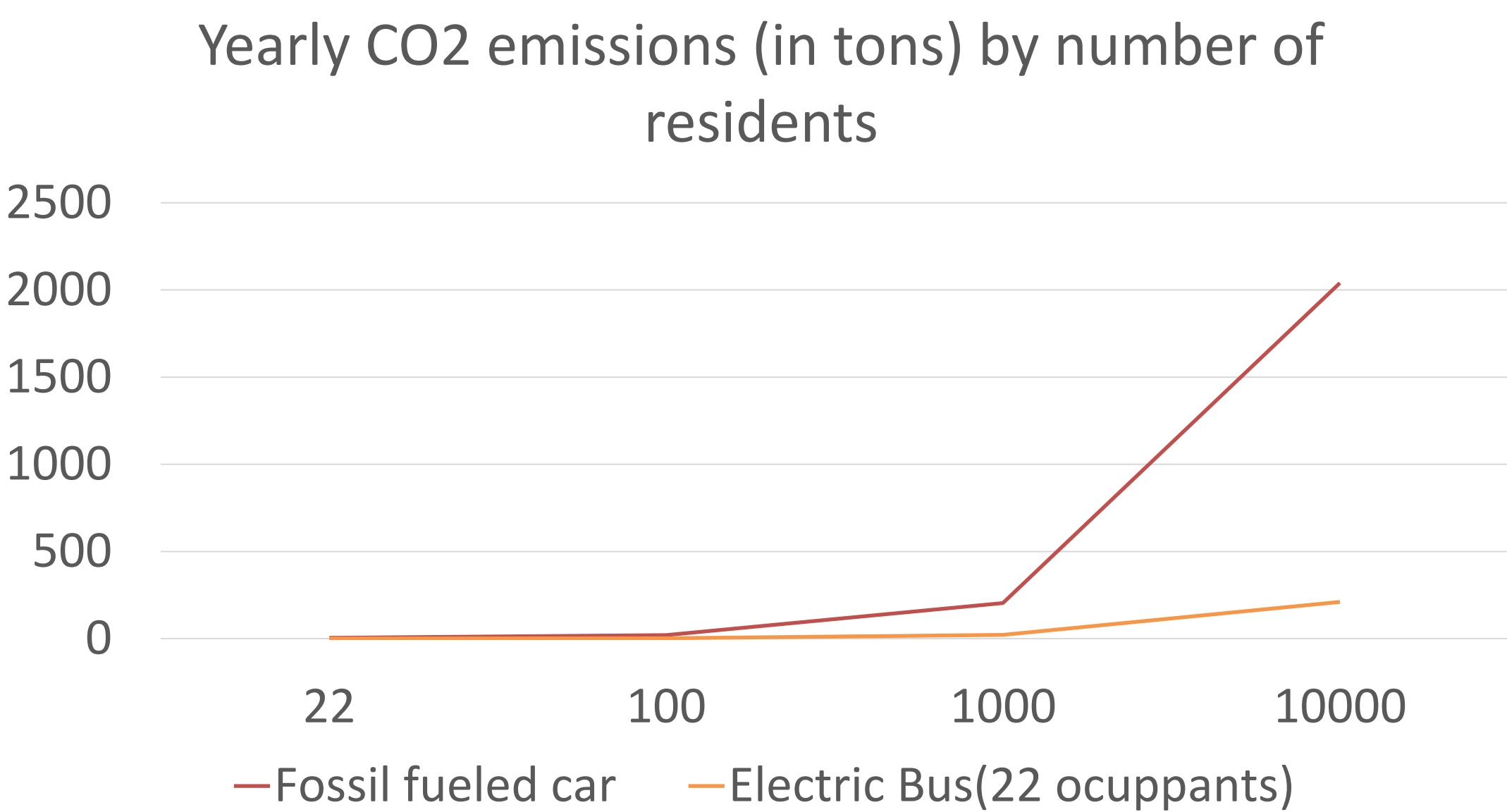
### App with bus selected



## Points of interest

## Discussion / Conclusion

The focus of the application was to provide a tracking application that is inclusive of everyone, people that usually take public transportations to move around the city, tourists that visit Viana do Castelo and visually impaired people to assist them on their daily routines.



## References

**ReactNative:** <https://reactnative.dev/>  
**000webhost:** <https://www.000webhost.com/>  
**MySql:** <https://www.mysql.com/>  
**GoogleMaps API:** <https://developers.google.com/maps/documentation>

# Orientation

- **Professor Sara Paiva**
- **School Year 2020/2021;**

