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1.INTRODUCTION

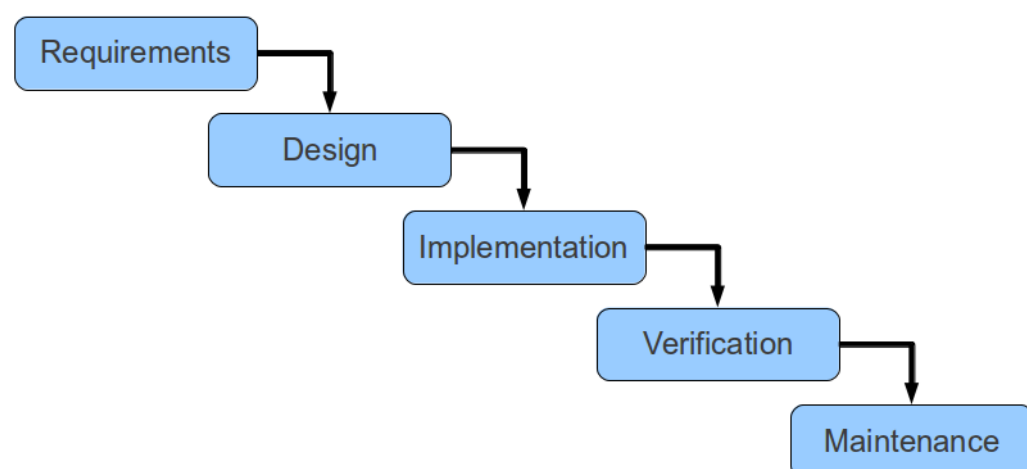
The main motivation of this project is several drivers in the last five years left some children inside the school bus while they were sleeping. This caused the suffocation and 17 kids lost their lives in the kingdom of Saudi Arabia. This problem makes the kids' parents worry and feels a lack of confidence in the transportation of schools. In this project, we try to solve this problem and reduce the choking rate and the reassures of parents.

3.PURPOSE OF THE PROJECT

The purpose of application (كُن مَعَهُمْ) is to stop kids death and limit suffocation inside the school bus, by sending a notification to children parents when the children enter and exit the school bus and school.

5.METHODOLOGY

Waterfall development had been used to develop this project.



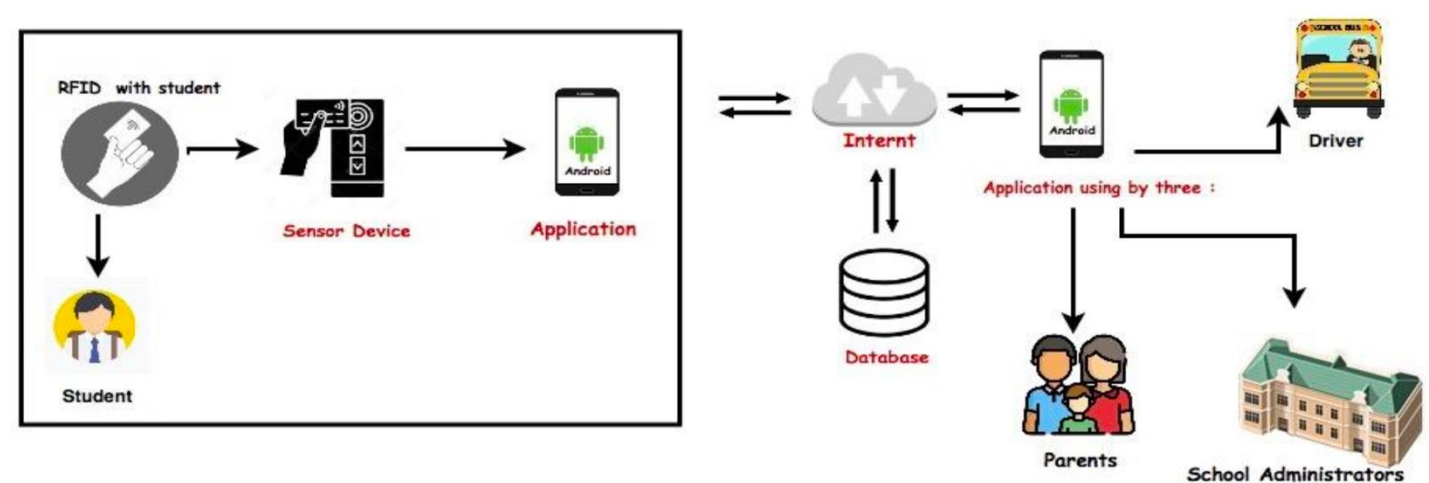
7.FUTURE PLANS

- Support all schools in one city(Makkah) .
- Providing a parent tracking feature for children.
- Providing a parent chat feature with (driver or school administration) .
- Developing application to make it conform with iOS - web systems.
- Provide buses for people with special needs and add this feature to the application.
- Providing a service for people who are unable to read
- Providing several accessories in place of the card or key holder (hair loss, tie, hour) .
- Add the feedback service so that we update our application based on user opinions.
- Adding technical features to the application.
- Inform parents that bus arrives to home.

2.OBJECTIVES AND GOALS

- “Be with them” mobile application was designed to stop kids’ life lost and reduce the choking rate.
- Increases family confidence in the school bus transportation and reduce their worry and the reassures of parents
- Using technology in various domains (educational- transportation).

4.ARCHITECTUR DESIGN



6.IMPLEMNTATION AND TOOLS



Android studio: used for programming and application development.



Arduino IDE: used to take chip id from RFID reader and send it to application.



Firebase: The database was used to store and retrieve school information, parents and students.

8.RESULTS

Our app are able to do the required tasks :

1. Create new account for (parent , student , driver) .
2. Sign in as (school administration , parent , driver) .
3. RFID pick up signal from card .
4. Send notification to parent .

9.CONCLUSION

In this project (كُن مَعَهُمْ), we designed a mobile application and used RFID technology to stop children death inside the school bus. This mobile application provides safety and security for children inside the bus by giving the children parents comfort and increase reassurance by sending a notification to the parent that shows the status of their child. RFID is used to check whether the child in or out the bus by picking the signal from the card which is held by the child, then stored this information in the application and the application will send a notification to parents and inform driver about the student status. This application also gives school administration trust and provide monitoring to drivers. Finally, all these features provided by the system are considered as safety enhancement for school transportation.