

## **Advanced Database Management Systems**

### **Project Report**

This course and the implementation of the project was very interesting and, most importantly, useful for us. We learned a lot from our mistakes and tried new programs like docker, new postgres database for us and backend like spring boot. We knew these things only theoretically and this course became an impetus for us to apply this knowledge in practice. Due to the fact that it was something new for us, we faced many problems and mistakes. The idea of the project is to awaken the desire of schoolchildren and students to read.

We were able to cope with mistakes via stackoverflow and Indian YouTubers and of course practice. Connecting docker with our postgres database was a bit tricky and we spent a lot of time trying to figure out how this program works. After a few iterations, we managed to connect our database from docker. The next thing was to link the backend to our postgresSQL. We looked for information on this and implemented it, and it made us very happy. After our database and backend were ready and connected, writing the front on a mobile phone did not cause us any difficulties, because we have an experienced mobile developer and we connected the front with the backend via API requests. It's very cool that you don't need to write any code to create files to connect the backend with the front if the features on the backend work through API requests. This also made us happy.

By doing the assignments in phases, we learned a lot about the implementation and the stages of the project. The study of Use Case Diagram, ER diagrams was very useful, filtering out the queries and making RA operators, and calculating the cardinality was a good challenge for us. It was very good that we used the postgresSQL database, because it was very cool to evaluate speed performance simply by adding an EXPLAIN ANALYZE function.

After these tasks, we became more experienced in the implementation of the project and learned a lot about the new programs. There were those phases where we were unable to complete tasks on time, but this was also a good lesson for us in working with the team.