Escuela Superior Politécnica del Litoral

PARES o NONES
Un break científico

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Design of a technological platform for teaching children's musical initiation using gamification

PROBLEM

The need identified is the creation of a software tool that supports music teachers in the classroom and allows children to learn while playing. It highlights the importance of having interactive and attractive didactic material to motivate students in learning music.

Photo. Early musical education.

GENERAL OBJECTIVE

Design a music platform that allows teachers to generate musical compositions based on children's active listening. It seeks to facilitate the teaching-learning process of music through technology and gamification, providing students with a more dynamic and engaging educational experience.

Photo. Musical composition test in Copol classroom.

PROPOSAL

The development of a music platform with two components: one for the teacher and one for the student. In the teacher component, a musical composition can be created from musical instruments, while in the student component, the student can access the composition through a mobile application and reinforce what is taught by the teacher through interactive games.
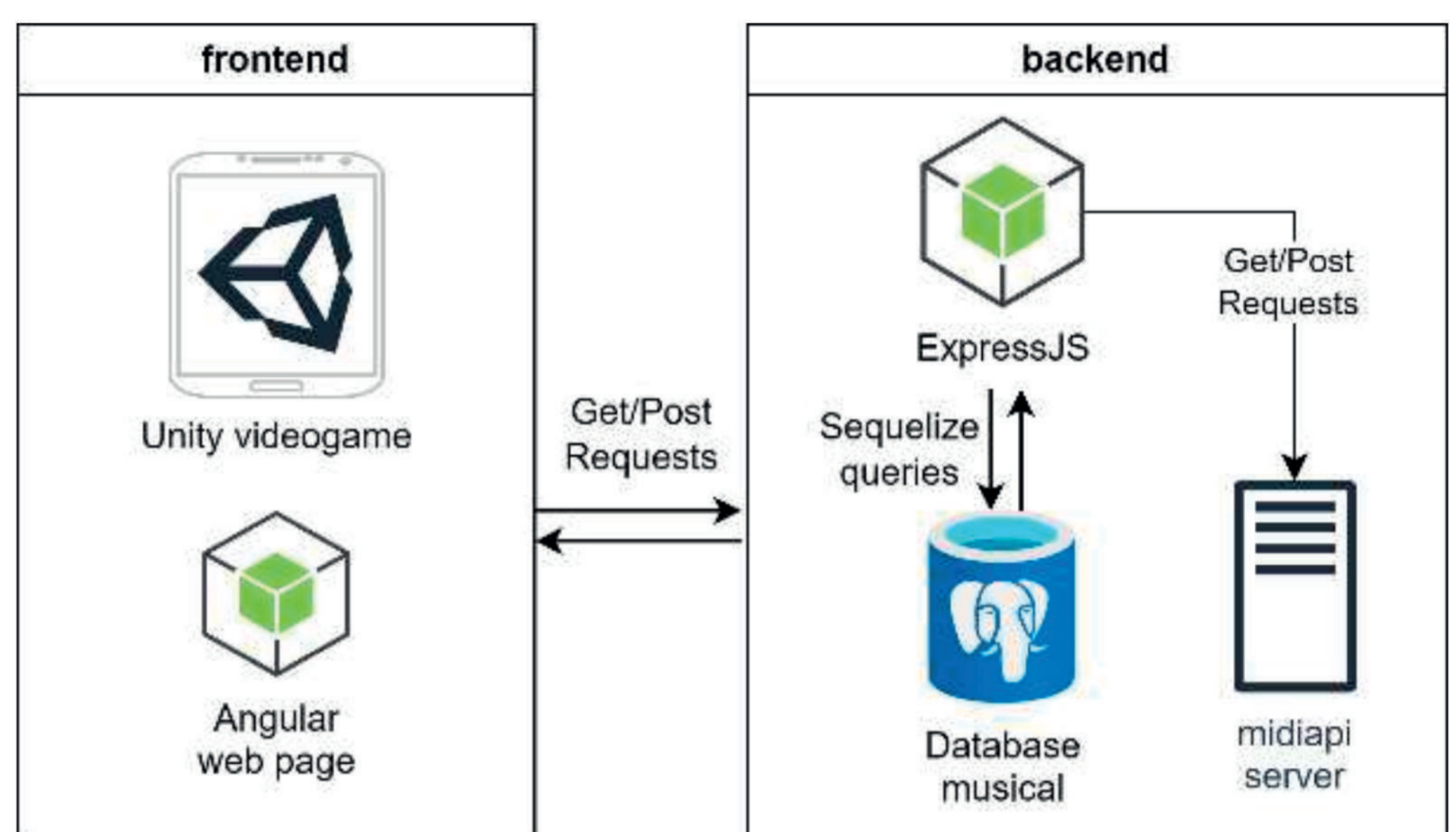

Figure. System architecture.

RESULTS

The research results show that the structure of the platform is functional and visually appealing to children, which motivates them to use it. Concept tests were conducted to assess the users' motivation to use the platform and it was evident that the platform met the expectations of the music teachers. The need for extended testing in more school settings was identified to assess the relevance and pertinence of the platform in different educational contexts.
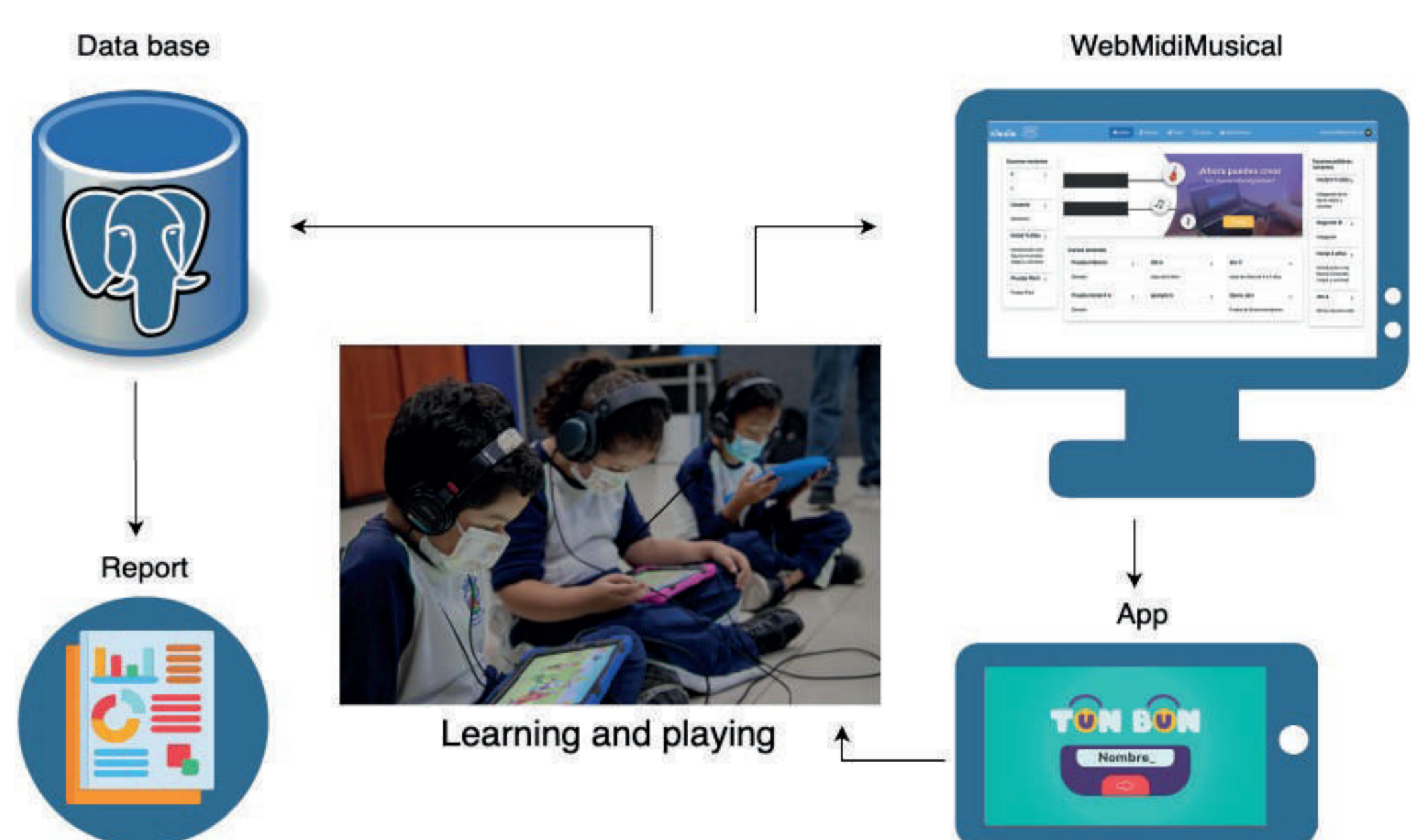

Figure. Musical midi platform architecture.

CONCLUSIONS

- The study's outcomes demonstrated the effectiveness of using controlled digital platforms with gamification elements in facilitating the teaching-learning process of music for children.
- It was noted that teacher guidance was essential to ensure successful use of the platform.
- The platform was found to be visually attractive and engaging for children, promoting learning through interactive and understandable games.

ACKNOWLEDGMENTS