MockMentor

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Abstract. *This project proposes the development of a Simulated Interview Platform focused on preparing young students, especially those in the Information Technology field at SENAC, for job interviews, particularly those conducted in English. The platform connects students with experienced professionals, allowing real-time technical interview simulations. The goal is to develop technical, language, and behavioral skills, while increasing familiarity with professional environments. This practical and personalized approach, based on agile methodology and market analysis, offers relevant advantages compared to existing platforms.*

1. Introduction

Entering the job market is a recurring challenge for young students, especially those without previous experience and with difficulties on communicating in English. For students in the field of Information Technology, these challenges are even greater due to the global and technical nature of the sector. Lack of knowledge about company expectations, recruitment processes, and practical guidance makes it difficult for these young talents to get exposed to professional opportunities. In response to this reality, the Simulated Interview Platform project emerges as an innovative and inclusive solution, aiming to reduce barriers and offer more realistic, hands-on, and personalized preparation for job interviews, through simulations with experienced professionals and topics adapted to each student's needs.

2. Methodology

The methodology adopted for the platform's development is based on identifying real needs of the target audience and creating practical solutions. The process began with a collaborative brainstorming session among the project members, also using the challenges shared by classmates as a starting point. The Miro platform was used as a visual and organizational tool to map initial ideas, define features, and architect the project using an iterative and participative approach, following agile methodology principles. Regarding the platform's database, BrModelo was used to create Entity-Relationship (ER) Models at three levels: conceptual, logical, and physical. The conceptual model defines the system's main components in an abstract way — such as users, tutors, interviews, and feedback — and their relationships. The logical model refines this structure with technical details such as data types and relationships. The transition from logical to physical model is done using DDL (Data Definition Language), which defines the database structure including tables, columns, data types, primary keys, foreign keys, and other essential elements. The code generated from the physical model, developed in SQL, is implemented through

an RDBMS: PostgreSQL — a database management tool. This application allows for a robust structure and testing of the database, ensuring consistency, security, and scalability for the platform.
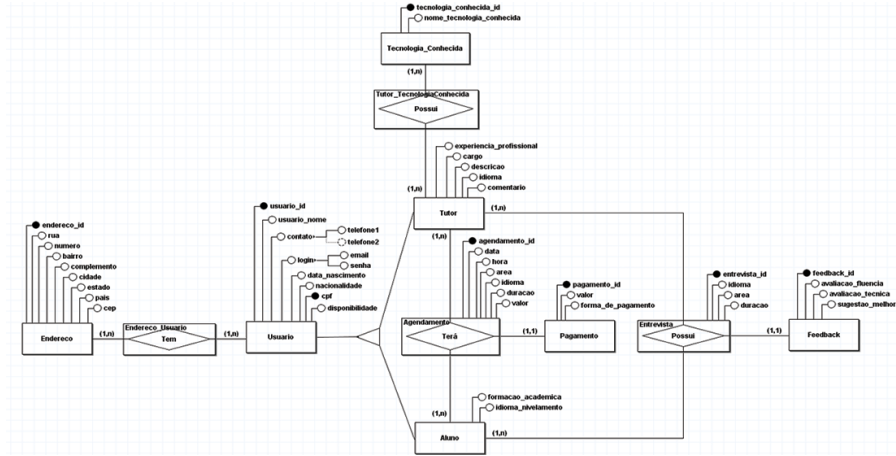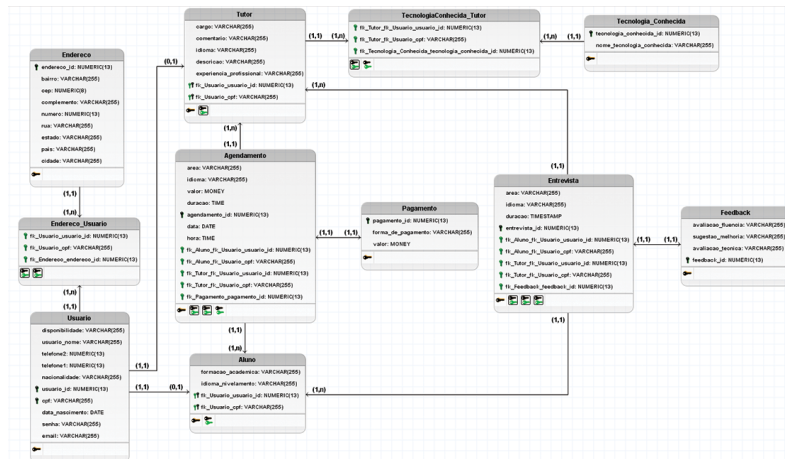

Figure 1. ER Model - Conceptual

Figure 2. ER Model - Logical

3. Theoretical Framework: Feasibility Analysis and Platform Differentials

The feasibility of the project was analyzed based on several factors: social importance, profit potential, technical resources, market size, existing competition, and expected acceptance of the service. The proposal is especially relevant because it directly addresses a common difficulty faced by beginner students: lack of preparation and insecurity during job interviews — especially in a technical and global context like Information Technology. A comparative analysis was conducted with platforms already available in the market. Cambly, for example, is focused on English conversation, especially in a corporate context. Its plans are mostly offered to companies and their employees and do not include specific features for job interview preparation or technical focus areas like IT. Fluency and Duolingo offer language learning using a gamified and interactive approach, focused on improving fluency. However, these platforms are not connected to the job market and do not simulate interviews or provide performance-based evaluations. Preply and iTalki

offer live online classes with tutors focused on conversation. However, there is no pre-defined structure for job interview simulations. Whether or not interviews are covered depends entirely on the tutor's individual teaching style, which can make the student's experience inconsistent and less effective for career preparation in technical fields. InfoJobs offers a job interview simulator, but it is only available through a premium subscription. In addition, the evaluations are automated using artificial intelligence, with no human interaction or personalized feedback. Given these findings, this project presents a distinct and complete solution by offering live simulated interviews with real tutors specialized in technical areas, such as programming languages, agile methodologies, and databases. Students can choose the interview focus according to their professional goals. The human and constructive feedback after each session allows for real improvement, something that current platforms do not offer in an integrated way. Another key feature is the creation of a mentor network with professionals from companies like SAP, Meta, SKA, and W3K, located in the TECNOSINOS tech park. This partnership brings the interview simulations closer to the real case scenarios students will face in the job market.

4. Objective

The Simulated Interview Platform aims to help students — especially those in Information Technology — face the challenges of entering the job market. The focus is on improving their communication in English and technical preparation for real job interviews. Through realistic simulations led by professionals in the field, the platform offers practical and targeted support that reflects the current demands of both national and international companies. Unlike existing language or conversation platforms, this project combines interview practice, technical training, and human feedback. It also encourages networking and knowledge exchange between experienced professionals and students, strengthening inclusion and growth in the tech industry. The use of agile methodology, data modeling tools, and a collaborative process from the beginning ensures a strong technical foundation and alignment with the users' needs.

5. Expected Results and Next Steps

With the planning and modeling stages completed, the next steps of the project are: a) Developing the platform interface, focusing on usability, accessibility, and integration of scheduling, live interviews, and performance evaluation modules; b) Implementing the PostgreSQL database through PgAdmin4 tool using the previously created physical model to ensure data integrity and security; c) Establishing formal partnerships with companies in the TECNOSINOS tech park to guarantee the participation of real tutors in the initial simulations; d) Running pilot tests with SENAC students to validate the user experience and the effectiveness of the simulated interviews, and to improve the platform based on feedback; e) Expanding the platform to other courses and educational institutions, allowing the customization of interview content for areas such as Design, Business Administration, Health, and more. By the end of the development phase, the platform is expected to significantly increase students' confidence and performance in job interviews, becoming a key tool for supporting young talents in their transition into the tech job market.