KeyserKat- A Learning App for Twelfth Graders

Malaret Lopez, Ian (School: Escuela Bilingue Especializada en Ciencias y Matematicas Papa Juan XXIII Secundaria)
Vargas Santiago, Sofia (School: Escuela Bilingue Especializada en Ciencias y Matematicas Papa Juan XXIII Secundaria)

Twelfth grade students frequently encounter challenges related to their academic performance, which could be due to limited study strategies and ineffective learning habits. KeyserKat aims to improve learning by offering personalized lessons, intuitive layout, game like elements, progress tracking, and multiple learning strategies. . The application, programmed in Python, runs for 10 minutes without requiring intervention by the finalist. It was evaluated through researcher testing followed by human testing with 14 participants. Results from the intuitiveness test showed that students located the settings page 1.3 seconds faster than the developers, although they completed the remaining tasks an average of 27 seconds slower. The flashcard and Pomodoro learning strategies operated successfully within the application, and partial intuitiveness was achieved. Gamification was not tested, and progress tracking features were not fully implemented but for the next phase of development they are planned to be completed. Overall, one of the six engineering goals was fully met; four were partially met, and one was not implemented. These results indicate that KeyserKat has met 33% of its engineering goals but it is still missing 67% of them. This means KeyserKat is still missing features before the app gets public deployment. In future phases of development, it is planned to implement images in lessons, a functional leaderboard, a settings page, expanded units, AI-based features, a refreshed user interface, and broader curriculum and exam-preparation content.

Awards Won:
Association for the Advancement of Artificial Intelligence: AAAI Student Memberships for each finalist that is part of the 1st, 2nd, and 3rd Prize Winning projects and 5 Honorable Mention winning projects (up to 3 students per project) (in-kind award / part of the 1st-3rd prize)