Mahsa Mohajeri

QuickCheck: Vision Screening Tool

QuickCheck is an application crafted to offer schools a streamlined tool for swiftly and efficiently assessing the visual acuity of students. This versatile app encompasses evaluations of near vision acuity, distance vision acuity, stereopsis (a future module), and convergence insufficiency (via a clinical assessment survey). The assessment of near vision acuity sheds light on students' capacity to discern objects up close, a pivotal skill for reading. The examination of far vision acuity is the most familiar to users since it is typically administered during medical appointments. The Stereopsis test gauges the aptitude to discern depth in visual perception. Lastly, convergence pertains to the capability to concentrate visual focus on a specific target. These four examinations play a vital role in detecting any potential visual impairments among students.

The main objective of my capstone project revolved around preparing QuickCheck for its launch on the Google Store. I conducted a series of comprehensive functional assessments aimed at uncovering any potential usability concerns. A particular focus during these tests was directed towards confirming the responsiveness and expected outcomes of each button within the mobile application. Additionally, I evaluated the application's capacity to respond properly to a variety of potential user inputs – including proper responses, boundary testing, error/correction handling, logic/flow, and application instructions. Lastly, I conducted specific tests to validate the accurate storage of student test results in the database.

A significant portion of these assessments were carried out successfully. Nonetheless, there were specific tests the application was not able to pass; these instances have been recorded and incorporated as items in the product backlog within the development environment. Importantly, unsuccessful tests do not hinder the continuation of clinical testing. My efforts have contributed to identifying usability concerns in the current version of the application, which are crucial for the timely and proper clinical launch of QuickCheck.