

Software Requirements Specification (SRS) Document

VR headset based glaucoma screening tool , Team No: 37 ,
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Brief problem statement

Identifying an eye disease called glaucoma. The app aims to simulate the actual test called visual field test (VFT) in android app and integrating with a VR headset.

System requirements

Creating a grid that randomly produces a bright dot on the screen at random positions.

Creating a main menu that should take all the data relevant to the test.

Generating reports after the completion of test for both left eye and right.

Integrating app with a Bluetooth clicker.

Technologies: Unity for front-end , C# scripts, Node/Firebase for backend.

Users profile

Patient: Any patient in the age range (10 to 70 years) can use this software as a preliminary testing tool to detect early onset of Glaucoma. Patients with little to no experience with VR apps or mobile apps are expected hence the UI should be beginner friendly.

Doctor: Doctors should be able to receive a comprehensive report with all patient details.

Feature requirements (described using use cases) (subject to changes)

	No.	User Case Name	Description	Release
1.	1	Patient	Patient Details: Patient adds details like name, age, gender.	R1
2.	2	Patient	Instructions: Patient receives instructions on how to use the VR headset.	R1
1.	3	Patient	Instructions: Patient receives instructions on how to proceed with the test	R1
2.	4	Patient	Test: Patient undergoes the actual test.	R1
3.	5	Doctor	Report: Doctor receives the report with specific indicators.	R2

Use case description

Use Case Number:	UC04
Use Case Name:	Report
Overview:	Patient undergoes the VFT test.
Actors:	Patients
Pre condition:	Patient should have entered his details and have read the instructions. Bluetooth clicker should be paired properly.
Flow:	1. Patient will be asked if we wants to start the test. 2. Patient clicks Bluetooth clicker if he sees the light on his field of view.
	Alternate Flows: User can opt to stop the test during any point in the test. He/she will be redirected to enter his/her details again.
Post Condition:	Report is generated and sent to the doctor.

Use Case Number:	UC05
Use Case Name:	VFT test report
Overview:	Doctor receives the report with specific indicators.
Actors:	Doctor
Pre condition:	Patient completes the test before report generation
Flow:	1. Doctor receives patient details 2. Doctor is sent a graph-based report with specific indicators.
	Alternate Flows: If false trigger detection system detects too many red flags, doctor is informed so he can repeat the test.
Post Condition:	Report is saved in database along with patient details.