

Requirements definition

ID	Name	Description	Priority	Actors
User Management				Administrators
UM-1	Administrator create user account	An administrator should be able to create new user accounts (administrators o researchers) with its personal information: username, password, name, surname, email and contact number (optional)	Medium	Researchers
UM-2	Administrator delete user account	An administrator should be able to delete a user account. Note: disable deletion of the last administrator account.	Medium	Users (administrators and researchers)
UM-3	Existing user sign-in	A user should be able to log in with his/her username and password	Medium	
UM-4	Existing user sign-out	A user should be able to log out	Medium	
Project Management				
PM-1	Administrator project visualization	An administrator should be able to see all the settings and projects	Medium	
PM-2	Researcher project visualization	A researcher should be able to see all the projects to which he/she has been given permission	Medium	
PM-3	Project creation	An administrator should be able to create a new project with its name and description	Medium	
PM-4	Project removal	An administrator should be able to delete an existing project along with its experiments and added videos	Medium	
PM-5	Project edition	An administrator should be able to update the name and description of an existing project	Medium	
PM-6	Granting access permissions	An administrator should be able to grant permissions to a researcher to access an existing project	Medium	
PM-7	Revoking access permissions	An administrator should be able to revoke permissions to a researcher to access an existing project	Medium	
Experiment Management				
EM-1	Experiment addition	Users should be able to add new experiments to an existing project with its name and description	High	
EM-2	Experiment removal	Users should be able to remove experiments from an existing project along with the added stimuli videos	High	
EM-3	Experiment edition	Users should be able to edit the name and description of existing experiments	High	
EM-4	Note addition	Users should be able to add notes to an existing experiment	Low	
EM-5	Note edition	Users should be able to update the notes of an existing experiment	Low	
EM-6	Note removal	Users should be able to delete notes from an existing experiment	Low	
Stimuli Video Management				
SVM-1	Stimuli video addition	Users should be able to add videos (or link to videos) representing stimuli to an existing experiment	High	
SVM-2	Stimuli video removal	Users should be able to remove videos representing stimuli from an existing experiment	High	
SVM-3	Recording experiment	Users should be able to reccord a video representing stimuli to add to an existing experiment	High	
Experiment Execution				
EE-1	Real-time execution experiment	Users should be able to reccord a video representing stimuli and see at the same time the video and raw real-time outputs of visage SDK	High	
EE-2	Run experiment	Users should be able to see a video already recorded or added, and raw real-time outputs of visage SDK	High	
Data Visualization				
DV-1	Emotions over time	Users should de able to see a plot that shows how magnitudes of basic emotions change over time. I.e., it would be a line chart in which x-axis is time and y-axis is magnitude of emotions (from 0% to 100%). Different emotions can be plotted as lines of different colors in the same graph or in multiple subplots one below the other	High	
DV-2	Dynamic charts	Users should be able to see plots showing numbers numbers and corresponding bar charts dynamically while playing the video stimuli. In other words, instead of observing the fixed graph, researchers would be able to view the same video that was used in the experiment and see magnitudes of participant's emotions as numbers and bars besides the video for the current timestamp of the video, changing as the video progresses. This is useful, as it is easier to relate what is happening in the video with current magnitudes of participant's emotions. It also allows researchers to pause to video, or jump to a specific timestamp	High	
DV-3	Distributions of participant's emotion	Users should be able to see boxplots per experiment per participant which shows distributions of participant's emotions. The x-axis would be emotions, the y-axis magnitude	High	
DV-4	Emotions in time per experiment	Users should be able to see line charts of emotions in time per experiment, but across all participants in the experiment, showing the average emotion in each timestamp of the video. Additionally, shading around the line charts should depict one standard deviation	High	
DV-5	CSV files	Users should be able to export every visualization in CSV files	High	
Non-functional requirements				
NFR-1	Simple and clean interface	Make the most important actions very simple and efficient for researchers. The organization of experiments should be clear and the user interface should be self explanatory focusing on the limited, but relevant elements	High	
NFR-2	Responsive design	The web application must have a "responsive" design in order to ensure proper display on multiple personal computers, tablet devices and smartphones	High	
NFR-3	Privacy	Images or videos of participants should not be stored, transferred to the backend, nor processed outside visage SDK	High	
NFR-4	Efficiency	Data should be available for analysis right after the experiment is recorded (i.e., scheduled ETL or similar processes should be avoided). visage SDK works in real time and amounts of collected data are small, so this should be reasonably possible	High	
NFR-5	Interesting interface	Spark curiosity and motivate researchers to ask additional questions and to see different perspectives. Also, visualizations should be clear and, ideally, interactive (e.g., mouse hover should show X and Y data in each point)	High	