

| Requirement ID | Requirement Description | Use case ID | Use case Description | Code element (file) | Code element (package) | Test Case ID | Test Case Description | Status | Remarks |
|----------------|---|-------------|--|------------------------------|---|--------------|--|-------------|---------------------------|
| RQ1 | Authentication for admin | UC-1 | Google authentication | login.jsx,firebase.js | firebase/auth, redux, redux-toolkit | TC1.1 | User access with a valid email id | Passed | Implementation completed |
| | | | | | | TC1.2 | User access with a invalid email id | In-Progress | Implementation incomplete |
| RQ2 | Add and remove users from buildings | UC-2 | User will provide his name and select the building he wants to enter | form.jsx,firebase.js | firestore, bootstrap, react, router-dom | TC2.1 | User should select valid building and can't leave form empty | Passed | Implementation completed |
| | | UC-3 | Exit button will be provided to mark the exit of a particular user | list.jsx,firebase.js | firestore,react | TC2.2 | each user's exit time is updated | Passed | Implementation complete |
| | | UC-4 | Enter and exiting will increase/decrease counter of the corresponding building | buildingitem.jsx,firebase.js | | | Vacant seats and occupancy in sync with the entry and exit of every User | | |
| RQ3 | Check availability of every building | UC-5 | user will check the availability of seats in that building. | card.jsx,firebase.js | firestore,react | TC3.1 | Users are only allowed to make entries if vacant seats are available. | In-Progress | Implementation incomplete |
| RQ4 | Display name and entry details of all users | UC-6 | The name and entry time of all users that are inside any buildings at the moment will be displayed | list.jsx,firebase.js | firestore, bootstrap, react | TC4.1 | entries should be filtered according to their respective building entries | Passed | Implementation completed |
| RQ5 | Graphical view of the entries of the users | UC-7 | Admin see the current occupancy of a particular building plotted against time | graph.jsx, buildingitem.jsx | recharts, react | TC5.1 | A component should be rendered for every change in user list (i.e. dynamic) | In-Progress | Implementation left |
| RQ6 | Alert Window on maximum occupancy | UC-8 | user will get warning/notification when maximum occupancy is reached | alert.jsx | react, bootstrap | TC6.1 | A building should have reached its maximum occupancy limit | In-Progress | Implementation left |
| RQ7 | Edit maximum occupancy limit of a building | UC-9 | Admin will set occupancy limits for every building. | buildingitem.jsx,firebase.js | firestore,react, bootstrap | TC7.1 | When occupancy is greater than or equal to the number of people in a building. | In-progress | Implementation left |
| | | | | | | TC7.2 | When occupancy is already less than the number of people in a building. | | |