

Req ID	Requirement Description	Architecture Reference	Design Reference (component /module)	Test Case Reference	Status
3.1.1	The Employee Tracker shall allow the Employee to log in, update location, and see other users using the mobile application	Employee Login, Tracking status	Login <<interface>>, Mobile Application	T.3.1.1	P
3.1.2	The Employee Tracker shall allow the Manager to see updates from the employee on the web application.	Employer Login, Select Any Employee	View, Web Application	T.3.1.2	F
3.1.3	The login username and password will be verified to be valid according to the requirements set by the company.	Employee Login, Customer Login	Connection, Firebase Database	T.3.1.3	P/F
3.2.1	The Employee Tracker application shall check username and password for each user login. The username and password inputs will be sent as strings to be checked and be validated with Firebase. The data must be exact as it is credentials for a user.	Employee Logs in, Customer Logs in	Connection, Firebase Database	T.3.2.1	P
3.2.2	The Employee Tracker application shall fetch, and update requests to and from Firebase to validate against the frontend that what the user input has integrity.	Retrieves Database Information, Makes changes to Database Information,	Connection	T.3.2.2	P
3.2.3	Upon successful login, the mobile application shall send its location with 6 points of precision to the server immediately, and every 10 minutes thereafter, for the duration the user is logged in.	Check Tracking Status, Makes Changes to database Information	Mobile Applications Location	T.3.2.3	P
3.2.4	All data transfers between the Firebase server and the web or mobile application shall be through the Firebase API.	Database, Retrieves Database Information.	Connection	T.3.2.4	P
3.4.1	The Employee Tracker Application shall have these 3 user groups: The Employer, Employee, and Admin.	Employee, Customer, Admin	Web application, Mobile Application, Firebase Database	T.3.4.1	P
3.4.3	The Employee Tracking App shall prevent misuse by the user groups	Turns tracking on off, makes changes to database	Connection, Login, Mobile	T.3.4.3	F

		information.	application		
3.4.4	Users shall be provided training and copies of the Employee Tracking Application manual, thus minimal knowledge of the system is required. The only ability required is being able to follow a procedure outlined in the manual, and being able to read at smallest an 11pt font.	Database, Client-Server	Documentation	T.3.4.4	F
3.5.1	The documentation shall be stored with the software and updated in accordance to functional changes of the software.	Documentation	Documentation	T.3.5.1	F
3.5.2	The documentation will have pictures and diagrams of the software, with footnotes explaining what each button does.	Documentation	Documentation	T.3.5.2	F
3.5.3	The documentation should be concise and not span hundreds of pages.	Documentation	Documentation	T.3.5.3	F
3.5.4	The documentation shall have no usage of legalese or other complicated technical terms or jargon that would confuse a user.	Documentation	Documentation	T.3.5.4	F
3.5.5	The documentation should explain all parts of the software the user can interact with.	Documentation	Documentation	T.3.5.5	F
3.6.1	The degree of GPS precision shall be 6 decimal places for latitude and longitude. For example, (28.6024 N, 81.2001 W) which are the GPS coordinates for the University of Central Florida. The accuracy of the GPS data will vary depending location, weather and the number of satellites in line of sight to the GPS hardware on the mobile device. The Google Maps API will be used to facilitate this requirement.	Database, Retrieves Database Information	Documentation	T.3.6.1	P
3.6.2	GPS coordinates in the form of latitude and longitude for each individual employee must be retained in the database.	Database, Retrieves Database Information	Firebase Database, Algorithm	T.3.6.2	P
3.6.3	The employee's name and unique ID will need to be retained together in the database.	Database, Make changes to the database.	Database	T.3.6.3	P
3.6.4	The date and time of the gathered GPS coordinates shall be retained alongside the rest of the gathered data in the database.	Database	Database, User,	T.3.6.4	P
3.6.5	Logins shall be retained in the database.	Client-Server, Repository	Database, Login	T.3.6.5	P
3.7.1	A database shall be required for the backend to provide long term storage for our client's data. As our client's grow in number the costs associated with the Firebase	Database	Firebase Database	T.3.7.1	P

	database platform we chose will grow as well.				
3.7.2	A database administrator(s) will be needed to perform maintenance on the system as required. The system may need to be debugged at times and this action will require skilled personnel.	Database	Firebase Database	T.3.7.2	P
3.7.3	The Employee Tracker application shall require the client to have access to computers and the client's employees to have access to mobile devices. We will not need to provide any hardware to the clients for the application to function as intended. In addition, we will not require physical space or supporting amenities as the client's business will cover those aspects of their operation.	Subscriber	Web Application, Database	T.3.7.3	P
3.8.1	Access to the system shall be controlled and secured by logins for each client.	Server-Client	Firebase Database	T.3.8.1	P
3.8.2	Client's data shall be isolated from other clients through logins.	Server-Client	Firebase Database	T.3.8.2	P
3.8.6	Employee's shall not spoof their location.	Server-Client	Mobile Application	T.3.8.6	P/F
3.9.1	The Employee Tracker Application shall be available as a web application and mobile application.	Client-Server, Repository	Web Application, Mobile Application	T.3.9.1	P
3.9.2	Software shall be maintained by us, the software creators.	Repository	Employee Tracker	T.3.9.2	P
3.9.3	Automation of bug-detection will be in place	Client-Server, Repository, Database	Firebase Database, UI, Web/Mobile Applications	T.3.9.3	P
3.9.4	Downtime must be minimal (less than 30 minutes a week during working hours), Response time to issues should be within the hour of the issue arising.	Database	Connection, Firebase Database	T.3.9.4	P