Sprint 1 - Sprint Planning

ID	User Story / Technical Story	Acceptance Criteria	SP	Status
US5	As a visually impaired user, I want to securely sign up, log in, and manage my account, so that I can access personalized features within the app.	The user should be able to securely sign up, log in, manage their account, reset their password, and maintain their session, with proper error handling and redirection after authentication using Clerk	8	Completed
US6	As a visually impaired user, I want to enter address and receive navigation directions, so that I can easily find the route to my destination.	The user should be able to input the address, and the system should display the route using Google Maps, providing turn-by-turn navigation with estimated time of arrival and distance.	8	Completed
TS1	As a developer, I need to write test cases for Sprint 0 to ensure the implemented features are working as expected and meet the acceptance criteria.	All user stories and technical requirements from Sprint 1 should have corresponding test cases that cover positive, negative, and edge case scenarios.	5	Completed
TS2	As a developer, I need to write test cases for Sprint 1 to ensure the implemented features are working as expected and meet the acceptance criteria.	All user stories and technical requirements from Sprint 2 should have corresponding test cases that cover positive, negative, and edge case scenarios.	5	Completed
TS5	As a developer, I need to set up the MongoDB database according to the ER diagram, so that the data structure aligns with the application requirements, ensuring efficient storage and retrieval of user information.	The database should be set up according to the ER diagram with proper schema, indexing, and relationships	5	Completed
TS7	As a developer, I need to research and evaluate different AI models for real-time object detection and explore WebRTC and other methods for connecting the backend and frontend, so that we can select the most suitable technologies for our project's requirements.	The research should evaluate various AI models for real-time object detection and communication methods like WebRTC, comparing performance, scalability, security, and deployment requirements, and provide a recommendation based on the project's needs.	5	Completed
TS8	As a developer, I need to create an diagrams(Architecture, Sequence, Class, ER, State, Context) for the entire product, which includes all core components, services, and interactions such as the frontend, backend, external APIs, database, and third-party integrations, so that the overall structure and flow of the system are clearly understood and can be implemented effectively.	The architecture diagram should clearly represent all major components (functional and non-functional) of the product, their interactions, data flow, and error handling mechanisms, using a standard tool for easy understanding and team review.	13	Completed
TS9	As the Project Manager, I want to ensure seamless coordination between technical components and stakeholders, So that the system meets both user needs and technical specifications	The system should facilitate regular communication between stakeholders and the development team, track progress against project goals, ensure alignment between user needs and technical specifications, and maintain clear documentation for all key technical components and requirements	5	Completed

Sprint 2 - Sprint Planning

ID	User Story / Technical Story	Acceptance Criteria	SP	Status
US1	As a visually impaired user, I want to receive real-time alerts when objects are detected through my phone camera	The FastAPI backend should process frames using the YOLO model and return a JSON object with detected obstacles or important objects (e.g., door, chair, or pedestrian), ensuring minimal delay for real-time assistance.	5	Completed
US2	As a visually impaired user, I want an intuitive interface that allows me to easily capture images using my phone camera, so that the system can analyze the surroundings and help me navigate safely.	The application must provide an accessible interface that allows visually impaired users to easily capture images through the phone camera and receive real-time audio feedback on detected objects.	8	Completed
US3	As a visually impaired user, I want the system to describe detected objects in my surroundings through text-to-speech, so that I can receive real-time auditory feedback and safely navigate my environment.	The system should accurately identify objects in the user's surroundings and provide clear, real-time auditory descriptions through text-to-speech, ensuring the user can understand and navigate their environment safely	8	Completed
TS6	As a developer, I need to document the API endpoints and integrations for FastAPI, YOLO object detection, and Google Maps so that the team can easily understand how to interact with the services and ensure smooth integration	The API documentation should clearly describe all FastAPI endpoints, YOLO object detection integration, Google Maps functionality, include example requests and responses, and provide authentication details, error codes, and troubleshooting guidelines.	5	Completed
TS10	As a Developer, I want to review and update the diagrams	Diagrams should be upto date and should be reviewed with the team	1	Not Completed
TS4	As a developer, I need to write a technical paper documenting the methodology, findings, and outcomes of our project so that it can be shared with stakeholders, academic peers, or for publication purposes.	The technical paper should comprehensively document the project's problem, methodology, results, analysis, and conclusions, following a clear, structured format with proper citations and adhering to the required submission guidelines.	5	Completed
TS3	As a developer, I need to write test cases for Sprint 2 to ensure the implemented features are working as expected and meet the acceptance criteria.	All user stories and technical requirements from Sprint 3 should have corresponding test cases that cover positive, negative, and edge case scenarios.	5	Completed
US4	As a user, I want to store my data in the app’s frontend and see the results reflected immediately so that I can interact with the application in real-time and track my information.	the frontend should allow users to store and display data in real-time, reflecting changes immediately in the app interface.	2	Completed

Sprint 3 - Sprint Planning

ID	User Story / Technical Story	Acceptance Criteria	SP	Status
TS12	As a developer, I need to create an AWS account for the project, so that we can deploy and host backend services, machine learning models, and other cloud-based components in a secure and scalable environment.	An AWS account should be successfully created, with access credentials securely stored and shared with authorized team members.	2	Completed
TS13	As a developer, I need to deploy the backend and model code on an AWS EC2 instance, so that the application can run continuously on the cloud and handle real-time requests from users.	The backend and model code should be successfully deployed and running on the EC2 instance, accessible via the instance's public IP or domain, and verified through test requests.	8	Completed
TS14	As a developer, I need to create a comprehensive deployment and installation manual for the project so that other team members and future developers can easily set up the environment, deploy the application, and maintain the system.	The manual should include clear, step-by-step instructions for environment setup, dependencies installation, code deployment, and running the application, and should be accessible to the entire team.	8	Completed
TS15	As a developer, I need to deploy the project's database on an AWS RDS server so that we can ensure secure, scalable, and managed database access for our application across all environments.	The database should be successfully created and deployed on the RDS server, with appropriate security groups, credentials configured, and connectivity verified from the application backend.	3	Incompleted
US7	As a visually impaired user, I want the app's interface to be fully connected with the backend services so that I can receive real-time updates about my surroundings, store my data, and access personalized features seamlessly as I navigate through the app.	The frontend and backend should work together to provide real-time object detection, user-specific responses, and data storage, with all core features functioning smoothly and verified end-to-end through user interaction.	8	Completed
US8	As a visually impaired user, I want a simple and accessible UI to input my source and destination so that I can easily receive navigation directions using Google Maps and move safely and independently.	The UI should allow users to enter source and destination locations, and upon submission, display route information and initiate navigation using Google Maps integration in an accessible format.	5	Completed
TS4	As a developer, I need to write test cases for Sprint 3 to ensure the implemented features are working as expected and meet the acceptance criteria.	All user stories and technical requirements from Sprint 4 should have corresponding test cases that cover positive, negative, and edge case scenarios.	5	Completed
TS16	As a developer, I need to draft a technical paper that documents the design, architecture, implementation details, challenges faced, and results of the project so that we can clearly present our work for academic or professional review.	The technical paper should include sections on problem statement, methodology, system architecture, technology stack, implementation details, challenges, results, and future work, and it should be well-structured and ready for submission or presentation.	5	Completed
US9	As a visually impaired user, I want to be able to connect with other users and grant them access to control my app temporarily, so that they can assist me in navigating or using certain features remotely when I need help.	The system should allow a user to securely share access with a trusted user, enabling them to view and interact with key controls in real-time, with the ability to revoke access at any time.	5	Incompleted