Sprint 4 Planning

Sprint team members

Name	Role
Sicheng Nie	Scrum Master
Renwei Hu	Product Owner
@George Wang	Architecture Lead
Siyi Liu	Development Environment Lead Deployment Lead

Objectives

1. Complete all documentation updates for Sprint 4 including GitHub and Docker.
2. Dockerize the entire project for easy deployment and scalability.
3. Set up, dockerize, and test a dedicated environment for Computer Vision tasks.
4. Set up, dockerize, and test a dedicated environment for Voice Recognition tasks.

Sprint 4 backlog

Epic	Epic ID	Task	Sub Task	Task ID	Story Point (1-10)	Assignee	Priority	Status
General Admin	GA	Documentation Update	Finish Sprint 4 planning	GA 2.22	4 pt	All	HIGH	IN PROGRESS
			Sync Sprint 4 tasks to Trello	GA 2.23	2 pt	All	HIGH	IN PROGRESS
			Weekly Trello screenshot	GA 2.24	1 pt	Renwei Hu	MEDIUM	IN PROGRESS
			Check sprint checklist	GA 2.25	2 pt		HIGH	IN PROGRESS
			Plan for Sprint 4	GA 2.26	2 pt	Siyi Liu	MEDIUM	IN PROGRESS
			Sprint 3 review	GA 2.27	2 pt	Renwei Hu	HIGH	DONE
			Sprint 3 supervisor feedback	GA 2.28	2 pt	Renwei Hu	HIGH	DONE
			Deployment and release	GA 2.20	2 pt	Siyi Liu	MEDIUM	IN PROGRESS
			Sprint 4 code review	GA 2.30	2 pt	All	HIGH	IN PROGRESS
		Meetings	Sprint 4 Meeting minutes	GA 3.7	3 pt	George Wang Renwei Hu	MEDIUM	IN PROGRESS
			Book time with the client for robotic arm tests	GA 3.8	1 pt	Renwei Hu	HIGH	DONE
		GitHub	Upload relevant sprint docs	GA 4.6	3 pt	All	HIGH	IN PROGRESS
		Tools documentation	Official guide (link)	GA 5.3	1 pt		LOW	TO DO
		Development related	Architecture explanation	GA 9.2	3 pt		LOW	TO DO
			Project dockerize	GA 9.8	5 pt	All	HIGH	TO DO
			Docker environment dependency	GA 9.9	3pt	All	MEDIUM	TO DO
Detect objects visually **(Computer Vision)**	CV	Human gesture	GPU Acceleration of Openpose	CV 3.3	4 pt		MEDIUM	IN PROGRESS
			Integrate gestures into a ROS2 node	CV 3.6	3 pt	George Wang	HIGH	IN PROGRESS
			Test Human gesture function	CV 3.7	3 pt		MEDIUM	IN PROGRESS
		Facial detection	Integrate facial detection into a ROS2 node	CV 4.3	3 pt	George Wang	MEDIUM	IN PROGRESS
			Test Facial detection function	CV 4.4	3 pt		MEDIUM	IN PROGRESS

		3D Object detection	Integrate 3D Object detection into a ROS2 node	CV 5.7	5 pt	Renwei Hu	HIGH	IN PROGRESS
			Test 3D Object detection function	CV 5.8	3 pt		MEDIUM	IN PROGRESS
		Computer Vision dockerize	Set up a Docker environment suitable for Computer Vision tasks.	CV 6.0	3 pt		HIGH	TO DO
			Dockerize the Computer Vision application ensuring all dependencies are correctly installed.	CV 6.1	3 pt		HIGH	TO DO
			Test the Docker container to ensure all CV functions work as expected.	CV 6.2	3 pt		HIGH	TO DO
Interact with the environment naturally **(Voice Recognition)**	VR	Account Refund	Create a separate account for a refund	VR 1.4	1 pt	All	LOW	IN PROGRESS
		Testing VR Function	Test the core functionality of the Voice Recognition system.	VR 2.1	3 pt		HIGH	TO DO
			Test the integration of VR with other system components.	VR 2.2	3 pt		HIGH	TO DO
		Computer Vision dockerize	Set up a Docker environment suitable for Voice Recognition tasks.	VR 2.3	3 pt		HIGH	TO DO
			Dockerize the Voice Recognition application ensuring all dependencies are correctly installed.	VR 2.4	3 pt		HIGH	TO DO
			Test the Docker container to ensure the VR function works as expected.	VR 2.5	3 pt		HIGH	TO DO

Potential risks

Risk	Mitigation
Incomplete Dependency Installation: Not all required dependencies get installed in the Docker container, leading to application failures.	Maintain a well-documented list of dependencies. Regularly update and test the Docker build process to ensure all dependencies are installed.

Sprint planning resources

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