AMOS Proj1 - Planning Documents

Project Data

Project Name	EMBArk Control of the
Production system (if any)	
Test system (if any)	
GitHub repository	https://github.com/amosproj/amos-ss2021-emba-service
GitHub kanban board (project)	https://github.com/amosproj/amos-ss2021-emba-service/projects/1
Team T-shirt (white)	https://www.shirtinator.de/loadBasket/CLbKrkAi_Fe
Team T-shirt (black) (men)	https://www.shirtinator.de/loadBasket/C8wrNC2gQhA
Team T-shirt (black) (women)	https://www.shirtinator.de/en/loadBasket/OCuYnsZJW1-
Additional materials	

AMOS Proj1 - Planning Documents

Project Team

Last Name	First Name	GitHub User Name	Email Address
Vogt	Jaromir	diegiesskanne	jaromir.vogt@fau.de
Saha	Bitan	bitans94	bitan.saha@fau.de
Wagner	Maximilian	MaximilianWagner	maximilian.b.wagner@fau.de
Singh	Ashutosh	ashutoshsingh0223	ashutosh.singh@fau.de
Achanta	Ravi Chandra	ravichandraachanta	ravi.c.achanta@fau.de
Vanteru	Mani Kumar	Mani1210	mani.vanteru@fau.de
Annavarapu	Vamsi Krishna	Vkrishna09	krishna.annavarapu@fau.de
Umesh	Vaishnavi	Vaish1795	vaishnavi.umesh@fau.de

	Learning objectives: Ensure all team members understand the objective. Continuouse Improvement of the needed skill set e.g. coding skill, social skills Interpersonal relationship objectives: Meeting all team members with respect and create a relaxed but object focused atmosphere Functional objectives: Time and skill efficient split of tasks and working. Provide a user-friendly and functional web service of e-m-b-a as a final product.
Goals	e in b a as a mai product.
Meeting norms	Team is meeting on Wednesdays (mandatory) for Sprint session. We meet on Fridays (optional) to have a follow-up of the assigned tasks. We also meet on Mondays for final review before the next sprint. Additional meeting timings is 4:30 PM on Fri and Mon.
	Decisions should be made unanimously
Working norms	Decisions should be made unanimously. If a teammember has a problem with a decision, everybody should try to find a compromise. Criticism should always be formulated constructive and should always be meet with understanding. Of course when team members face trouble or bigger tasks, the team is expected to collaborate and support the individuals.
	The current Scrum Master is responsible for a smooth process of the general meeting. He is expected to fill the role of the Moderator, to keep meetings on track and lead through the agenda and also the role of the Mediator, to resolve disagreements among the team. The Release Manager leads through the developed/technical part of sprint.
Coordination norms	
	Apart from lecture/meetings, the team communicates via dedicated Slack channel. Slack should be checked regulary, response time
Communication norms	should not exceed a day. In case of urgent matters theres also the option to call the concerning members. On general task like reviewing a PR there is a more relaxed deadline, unless its end of sprint. Personal Communication, especially topics regarding urgent matters, is always be possible.
Consideration norms	Seperate communications are allowed if there are no information withhold from the team. Disagreements between teams to be handled in presence of the Scrum master. Priority would be given to practices that have greater impact on the final outcome and the team will strive to achieve a compromise that fits all.
Cont. improvement norms	 Team's progress is tracked by how efficiently the team is able to break down problems into tasks and how good is the team with story-points estimation, through velocity charts etc Rate others' work: Good code practices. Proper test cases of the code engineers put in. Yes in case of a disagreement during a review or implementation discussion.
•	
Rewards	Enjoy with a beer and pat-on-the back! Nominate the next RM.
Sanctions	For acceptable excuses, it it encouraged that team members notify beforehand any problems they are facing and other team members would pitch in to assist. Recurring laxity in commitment is not warranted and the reasons have to be communicated accross the board in this instance. There is a sanctions catalogue: each 30sec to late to meetings = 1 Push Up (recorded on video)
General Norms	Always be kind, Respect each other, Don't be too shy to talk openly about problems. Racism and Sexism is intolerable. Render assistance to others if necessary.
	Pitan Saha Jaromir Vogt Maximilian Wagner Ashutosh Singh Vaishneyi Umash Bayi Chandra Ashanta Mani Kumar Vantary Vansi
Signature	Bitan Saha, Jaromir Vogt, Maximilian Wagner, Ashutosh Singh, Vaishnavi Umesh Ravi Chandra Achanta, Mani Kumar Vanteru, Vamsi Krishna Annavarapu

AMOS Proj1 - Planning Documents

Role Assignments

#	Meeting Day	Comment	Coach	Product Owner	Software Developer	Scrum Master	Release Manager
1	2021-04-14		Yes	Bitan/ Krishna	Everyone else	N/A	N/A
2	2021-04-21		Yes	Bitan/ Krishna	Everyone else	Maximilian	Mani Kumar
3	2021-04-28		Yes	Bitan/ Krishna	Everyone else	Jaromir	Ashutosh
4	2021-05-05			Bitan/ Krishna	Everyone else	Vaishnavi	Ravi Chandra
5	2021-05-12		Yes	Bitan/ Krishna	Everyone else	Ravi Chandra	Maximilian
6	2021-05-19			Bitan/ Krishna	Everyone else	Vamsi Krishna	Ashutosh
7	2021-05-26	Mid-term due	Yes	Bitan/ Krishna	Everyone else	Bitan	Vaishnavi
8	2021-06-02			Bitan/ Krishna	Everyone else	Jaromir	Jaromir
9	2021-06-09			Bitan/ Krishna	Everyone else	Ashutosh	Ravi Chandra
10	2021-06-16		Yes	Bitan/ Krishna	Everyone else	Vaishnavi	Maximilian
11	2021-06-23			Bitan/ Krishna	Everyone else	Bitan	Vaishnavi
12	2021-06-30			Bitan/ Krishna	Everyone else	Maximilian	Jaromir
13	2021-07-07		Yes	Bitan/ Krishna	Everyone else	Vamsi Krishna	Ashutosh
14	2021-07-14	Demo day!		Bitan/ Krishna	Everyone else		
15	2021-07-21	Retrospective		Bitan/ Krishna	Everyone else		

AMOS Proj1 - Planning Documents

Product Goal

Product Vision Project Mission

The long-term goal of EMBA Service is to provide containerized services employing a service backend. A user-friendly web application that uplinks the firmware images and generates a service report. The web UI allows the user to upload images and the generated reports remain embedded for long-term availability. Also, the web UI is capable of handling independent firmware scans while providing service managers with a dashboard overview of the services.

The use of EMBA service will enable the user with an interactive management console for maintaining reports generated for specific firmware images. Multi-user applicability is baked into the UI by containerizing the service backend thus allowing multiple users to simultaneously take advantage of the service thereby speeding up the overall process flow in the organization. Automatic management and retrieval of the generated reports from the service to have an in-depth overview of the project status.

AMOS Proj1 - Planning Documents

Product Glossary

Term	Definition
CVE (Common Vulnerabilities and Exposures)	reference-method for publicly known information-security vulnerabilities and exposures
firmware	Linux based firmware elegible to be analyzed by emba (e.g.: https://eu.dlink.com/de/de/products/dap-1330-n300-wi-fi-range-extender)

AMOS Proj1 - Planning Documents

Mid-Project Release Tracking

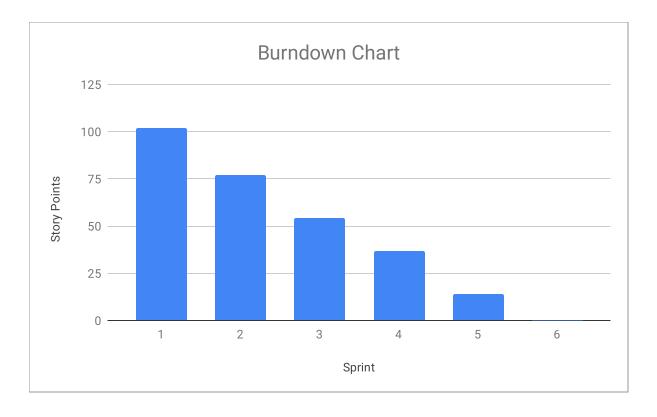
# Th	heme	Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn- Down
			Total		111			111
1 Ini	itial setup				9		9	102
		Getting to kn	ow and setup project					
			Information on prior experience	2		2		
			Meeting with industry partner	2		2		
			Additional team meetings	1		1		
			Django or flask	1		1		
			Choice of IDE	1		1		
			Clone client repository	2		2		
2 Fu	undamentals				25		29	77
		Deliver incre	ment with basic user handling					
			System setup and hands on	3		3		
			Navigation Header	3		3		
			Setup Docker project	3		3		
			Setup Django project	3		5		
			Project Linter and CI setup	3		3		
			Python sub processes for bash connection	3		3		
			Proper EMBA Integration	3		3		
			Freezing python version	1		1		
			Exploring Optimized libraries for sub processes	3		5		
3 Fr	rontend serv	rices			23		24	54
		Incremental e						
			Data fields for firmware uploader	3		5		
			Unzip functionality	5		3		
			Saving firmware image	3		3		
			Frontend integration	2		3		
			Websocket communication	5		5		
			ASGI setup	5		5		
4 Ba	ackend Serv	ices			17		20	37
		Incremental e	enhancement					
			CSRF cookie	2		5		
			Zipping generated reports	2		2		
			Backend job queue	3		5		
			Progress bar	5		3		
			MongoDB integration	5		5		
5 UI	I and backer	nd functionaliti	es		23		27	14
		Incremental e	enhancement					
			Setting up API endpoints	3		3		
			Frontend user login implementation	3		5		
			Processing emba log	3		3		
			Command parser	3		3		
			Emba service dashboard	5		5		
			Integration of datafields in front- and backend	3		5		
			Database table for authentication	3		3		
6 UI	I and backer	nd functionaliti	es		14		12	0
		Incremental e	enhancement					
			Setup remote server	3		2		

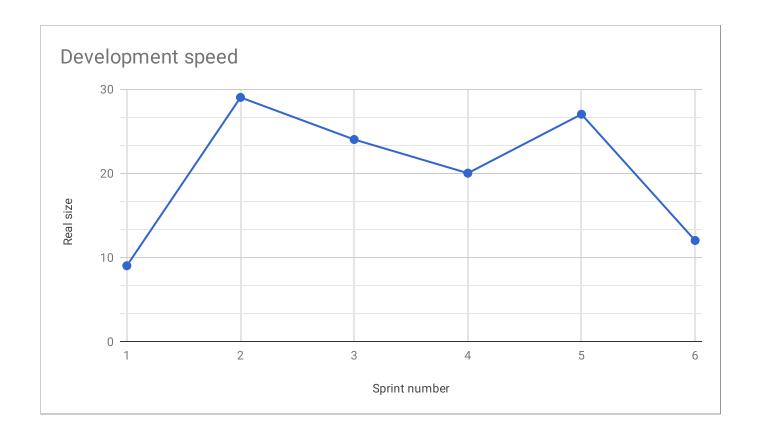
AMOS Proj1 - Planning Documents

Mid-Project Release Tracking

# Theme	Goal	Feature Name	Est. Size (Feature)	Est. Size Real Size (Sprint) (Feature)	Real Size Burn- (Sprint) Down
		Save flag info	2	2	
		Duplicate file uploads	3	3	
		Queue job from frontend	3	3	}
		Submit form refresh	3	2	

AMOS Proj1 - Planning Documents





#	Theme Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn- Down
-	Facture Impure		1				
	Feature Impro	vement	I				
	inipic	Alert box					
		Real time data reading					
		Image uploader page refresh					
		Ability to delete firmware image					
		. ,					
		_					
8		on of features in Dashboard					
	Incre	mental enhancement					
		Central Dashboard part 1					
		Central Dashboard part 2					
		Central Dashboard part 3					
9	Report Gener	 ation					
	Incre	mental enhancement	-				
		Reporting dashboard download and search reports					
		Reporting dashboard functioning					
		Redesign of EMBA report					

" - "	F (N	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-
# Theme Goal	Feature Name	(Feature)	(Sprint)	(Feature)	(Sprint)	Down

" - "	F (N	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-
# Theme Goal	Feature Name	(Feature)	(Sprint)	(Feature)	(Sprint)	Down

# Theme Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn- Down

" - "	F (N	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-
# Theme Goal	Feature Name	(Feature)	(Sprint)	(Feature)	(Sprint)	Down

# Theme Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn- Down

# Theme Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn- Down

" - "	F (N	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-
# Theme Goal	Feature Name	(Feature)	(Sprint)	(Feature)	(Sprint)	Down

" - "	F (N	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-
# Theme Goal	Feature Name	(Feature)	(Sprint)	(Feature)	(Sprint)	Down

" - "	F (N	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-
# Theme Goal	Feature Name	(Feature)	(Sprint)	(Feature)	(Sprint)	Down

# Theme Goal Feature Name (Feature) (Sprint) (Sprint)	Down

" - "	F (N	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-
# Theme Goal	Feature Name	(Feature)	(Sprint)	(Feature)	(Sprint)	Down

" - "	F (N	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-
# Theme Goal	Feature Name	(Feature)	(Sprint)	(Feature)	(Sprint)	Down

# Theme Goal Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn- Down

" - "	F (N	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-
# Theme Goal	Feature Name	(Feature)	(Sprint)	(Feature)	(Sprint)	Down

# Theme Goal Feature Name (Feature) (Sprint) (Sprint)	Down

# Theme Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn- Down

" - " 0 1	F (N	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-
# Theme Goal	Feature Name	(Feature)	(Sprint)	(Feature)	(Sprint)	Down

# Theme Goal	Foature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn- Down
# Illellie Goal	i eature ivanie	(i eature)	(Spriit)	(i eature)	(Spriiit)	DOWII

# Theme Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn- Down

# Theme Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn- Down

# Theme Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn- Down

" - " 0 1	F (N	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-
# Theme Goal	Feature Name	(Feature)	(Sprint)	(Feature)	(Sprint)	Down

# Theme Goal	Foature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn- Down
# Illellie Goal	i eature ivanie	(i eature)	(Spriit)	(i eature)	(Spriiit)	DOWII

" - " 0 1	F (N	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-
# Theme Goal	Feature Name	(Feature)	(Sprint)	(Feature)	(Sprint)	Down

" - " 0 1	F (N	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-
# Theme Goal	Feature Name	(Feature)	(Sprint)	(Feature)	(Sprint)	Down

" - "	F (N	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-
# Theme Goal	Feature Name	(Feature)	(Sprint)	(Feature)	(Sprint)	Down

" - "	F (N	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-
# Theme Goal	Feature Name	(Feature)	(Sprint)	(Feature)	(Sprint)	Down

" - "	F (N	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-
# Theme Goal	Feature Name	(Feature)	(Sprint)	(Feature)	(Sprint)	Down

# Theme Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn- Down

# Theme Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn- Down

# Theme Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn- Down

" - "	F (N	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-
# Theme Goal	Feature Name	(Feature)	(Sprint)	(Feature)	(Sprint)	Down

# Theme Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn- Down

" - "	F (N	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-
# Theme Goal	Feature Name	(Feature)	(Sprint)	(Feature)	(Sprint)	Down

" - "	F (N	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-
# Theme Goal	Feature Name	(Feature)	(Sprint)	(Feature)	(Sprint)	Down

# Theme Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn- Down

# Theme Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn- Down

# Theme Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn- Down

# Theme Goal Feature Name (Feature) (Sprint) (Sprint)	Down

# Theme Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn- Down

# Theme Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn- Down

" - "	F (N	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-
# Theme Goal	Feature Name	(Feature)	(Sprint)	(Feature)	(Sprint)	Down

# Theme Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn- Down

# Theme Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn- Down

# Theme Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn- Down

" - "	F (N	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-
# Theme Goal	Feature Name	(Feature)	(Sprint)	(Feature)	(Sprint)	Down

" - "	F (N	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-
# Theme Goal	Feature Name	(Feature)	(Sprint)	(Feature)	(Sprint)	Down

" - "	F (N	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-
# Theme Goal	Feature Name	(Feature)	(Sprint)	(Feature)	(Sprint)	Down

# Theme Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn- Down

AMOS Proj1 - Planning Documents Impediments Backlog

Sprint	Status	Source	Impediment	Resolution
2	. Resolved		POs got issues getting a grasp of the architecture. More Input from the SDs on Architecture/Granularity.	Improved the communication between SDs and POs on open questions. Emphasize the importance of standup emails. Everybody is happy to discuss open issues, just ask for assistance.
2	Resolved		No SD felt responsible for reviewing PRs	SD setting atleast 2 reviewers for PRs
2	! In-work		Team meetings with floating times, complicate/extend planning for team members	<u> </u>
			' "	
3	Resolved	Bitan	see above, its tricky to find a time that works for everyone, excuses for single meetings are no problem but in general we should have a fix time	We found a time slot everybody can work with. (Mon and Fr 4:30 pm) If somebody can't make it, we record our zoom session.
3	Resolved	Vaishnavi	different time zone so meeting times can be challenging	see above
	In-work	Ashutosh	product road map for planing purposes	We had a meeting on that on that on friday, but this process is still ongoing
	. In words	la camain		With everybody working on the project, one is getting a better understanding of the project setup so no extra
-	In-work	Jaromir	complex big project setup	meetings were necessary
3	In-work	Max	More frequency on the git hub pull requests and pushes	We can still improve on this
4	· In-work	Jaromir	User stories to be formulated in a detailed way	Improving the communication between the SD's and PO's in order to formulate better stories knowing the technical aspects.
4	In-work	Ashutosh	Everyone to be aware of the documentation by Siemens as well as by us and check for any problems	
4	Resolved	Ravi	We have more tasks in product backlog for the SDs to take up once they are done with the tasks	In the last meeting we got a better picture on what has to done and realised about the further tasks enough for everyone to work through the sprint.
5	In-work	Maximilian	we could improve the documentation and communicate inside the team	Meet quite often and understand the work and collaborate as a team to complete the tasks

AMOS Proj1 - Planning Documents Impediments Backlog

Sprint S	Status	Source	Impediment	Resolution

AMOS Proj1 - Planning Documents

Definition of Done

#	Feature Definition of Done	Sprint Release Definition of Done	Project Release Definition of Done
	Code review from peers has been completed and passed - Adheres to coding guidelines - Commits are not squashed - Code is checked into the repository	Code review passed - Code is successfully merged onto the master branch after reviewing merge request - Clean and Readable code is passed - Passes Linter & prettier checks before allowing pull request - Branch was checked out locally	Application is working on different devices and screen
	- Code is fully implemented and commented	- Continuous Integration build passing	sizes
		All tests are passing	
	Unit tests for backend have been written and are passing	Unit tests are passing Performance tests passed	Project builds without errors
	Manual performance tests on the browser are passing	All known critical bugs are fixed	No open known bugs are existent
	No critical bugs are open		All unit & functional tests are green (for backend)
			Manual performance tests on the browser is successful
			The code in Github is well documented and enough information is provided
			·

AMOS Proj1 - Planning Documents

Documentation

Туре	Link / reference
Technical Documentation	https://github.com/amosproj/amos-ss2021-emba-service/wiki/Technical_Documentation
Build/deploy documentation	
	https://github.com/amosproj/amos-ss2021-emba-service/wiki/Build-Deployment_Documentation
User documentation	https://github.com/amosproj/amos-ss2021-emba-service/wiki/User_Documentation

AMOS Proj1 - Planning Documents

Bill of Materials

\ Context	Name	Version	License	Comment
1 OS	Docker	20.1	Apache License 2.0	
2 OS	Docker-compose	1.27	Apache License 2.0	
3 OS	Kali Linux	2021.1	GPL-3.0 License	Version depending on emba service
4 Backend Framework	Django	3.2	BSD License	
5 Backend Framework	Channels	3.0.3	BSD License	
6 Backend Framework	Hypercorn	0.11.2	MIT License (MIT)	
7 Database	MongoDB	4.4	Apache License 2.0	Version depending on emba service
8 main	emba	-	GPL-3.0 License	Not versioned since still in development
9 Linting	pycodestyle	2.7.0	MIT License	
10 Testing	pytest	6.2.3	MIT License	
11 Frontend	HTML5		W3C License	
12 Frontend Styling	CSS			
13 Frontend	Bootstrap			
14 Frontend	Fontawesome icons			
15				
16				
17				
18				
19				

AMOS Proj1 - Planning Documents

Planning Poker

Last Name	First Name	Value		
Vogt	Jaromir	3		
Wagner	Maximilian	3	3.00	OK
Singh	Ashutosh	3	3.00	UK
Umesh	Vaishnavi	3		
Achanta	Ravi Chandra	3	0	No effort
Vanteru	Mani Kumar	3	1	Minimal effort
			2	Small effort
Saha	Bitan		3	Medium effort
Annavarapu	Vamsi Krishna		5	Large effort
			8	Very large effort
			13	Too large effort