AMOS P8 - Planning Document Project Data

Project Name	Cloud Native LLM
Online team meeting	https://fau.zoom-x.de/j/67390211804?pwd=SzlsTVZ1WjkzOHU1ZXVmVFM1V0NzUT09
Production system (if any)	
Test system (if any)	
GitHub repository	https://github.com/amosproj/amos2024ss08-cloud-native-llm
GitHub feature board	https://github.com/orgs/amosproj/projects/57
GitHub impediments backlog	https://github.com/orgs/amosproj/projects/52
Team T-shirt (white)	
Team T-shirt (black) (female)	https://www.shirtinator.de/en/s/LCIK9Uk5SPe2dkCDPs2zOQ
Team T-shirt (black) (male)	https://www.shirtinator.de/en/s/w8SArOIIS0a8qh96I_E8aw
Additional materials	
Team maling list	oss-amos-proj8@lists.fau.de

AMOS P8 - Planning Document Project Team

Last Name	First Name	GitHub User Name	Email Address
Li	Jiaao	grayJiaaoLi	ljaxmcx@gmail.com
Schäffer	Daniel	dnsch	dnsch@mailbox.org
Perez	Julio	julioc-p	perezduranjulio@gmail.com
Fischer	Dominic	dominic0df	fischer.df@web.de
Wegner	Thorben	thogebati	thogebati@thogebati.de
Rezaei	Ahmad Anosh	anosh-ar	ahmadanosh.ar@gmail.com
Tiwary	Poorvi Pankaj	poorvi0311	poorvipankajtiwary@gmail.com
Pansuriya	Yashodhar	YashodharPansuriya	yashodhar.pansuriya@gmail.com
Wielenberg	Christian	christianwielenberg	chrissi_8@gmx.de

AMOS P8 - Planning Document Team Contract

Goals	Be respectful to each other. Be nice and try not to be too harsh to your teammembers
	Make the teammeetings fun for every participant
	Help each other
	Be productive and work efficient
	Deliver good working software that helps our customer
Meeting norms	Everybody has to show up
meeting norms	Don't waste your teammates time. Let your team members know, if you should be late.
	Everyone comes prepared to the meetings
	Everyone is motivated and contributes actively
	If possible show your face, even if it's just for a short time
	Focus on the meeting
Working norms	Decisions are made democratically
	We support each other
	Work on feature branches
	Use best practices when coding
	Release code should always be commented
Coordination norms	Everyone is responsible for his/her assigned tasks and has to deliver. If problems arise, tell the team in time
	Every developer can pick backlog items for each sprint. Try to respect others' wishes
	POs moderate the meeting, but everyone can always state his/her opinion
	If certain topics should be addressed in meetings, let t he POs know in advance
Communication norms	The main communication channel is Discord
	Respect everyone's opinion
	Respond to messages at least on the next day if you are tagged
	All public messages are written in English
	In case of illness inform the team about the implications on your work
Consideration norms	POs can always stop discussions when they deem them irrelevant or too specific for the whole team meeting
	The scrum master intervenes whenever a discussion gets out of hand
	Overvoting of SM and PO possible if relevant
Cont. improvement norms	Try to improve the quality by giving constructive feedback
oona improvement norms	Respect that every developer has his/her own way of doing things
	Try to find the underlying reason if the sprint plan fails and take respective measures
	y 12 mile 2.12 mile 2.13 mile 2.

AMOS P8 - Planning Document Team Contract

Rewards	Play online game together
Sanctions	We always try to solve problems immediatly as a team. If that does not work out we will sanction specific behavior or a member after a democratic discussion
Signatures	
Scrum Master	Thorben Wegner
Product owner	Jiaao Li
Product owner	Dominic
Software developer	Daniel Schäffer
Software developer	Poorvi Pankaj Tiwary - Dropped out
Software developer	Ahmad Anosh Rezaei
Software developer	Julio Perez
Software developer	Yashodhar Pansuriya
Software developer	Christian Wielenberg

AMOS P8 - Planning Document Role Assignments

#	Meeting Day	Product Owners	Software Developer	Release Manager	Scrum Master	Comment
1	2024-04-17	Jiaao Li, Dominic Fischer	Everyone else	N/A	COACH student	
2	2024-04-24	Jiaao Li, Dominic Fischer	Everyone else		COACH student	
3	2024-05-01	Jiaao Li, Dominic Fischer	Everyone else	Julio Perez	COACH student	
4	2024-05-08	Jiaao Li, Dominic Fischer	Everyone else	Julio Perez	COACH student	
5	2024-05-15	Jiaao Li, Dominic Fischer	Everyone else	Julio Perez	COACH student	
6	2024-05-22	Jiaao Li, Dominic Fischer	Everyone else	Julio Perez	COACH student	
7	2024-05-29	Jiaao Li, Dominic Fischer	Everyone else	Julio Perez	COACH student	Mid-term due
8	2024-06-05	Jiaao Li, Dominic Fischer	Everyone else	Julio Perez	COACH student	
9	2024-06-12	Jiaao Li, Dominic Fischer	Everyone else	Julio Perez	COACH student	
10	2024-06-19	Jiaao Li, Dominic Fischer	Everyone else	Julio Perez	COACH student	
11	2024-06-26	Jiaao Li, Dominic Fischer	Everyone else	Julio Perez	COACH student	
12	2024-07-03	Jiaao Li, Dominic Fischer	Everyone else	Julio Perez	COACH student	
13	2024-07-10	Jiaao Li, Dominic Fischer	Everyone else	Julio Perez	COACH student	
14	2024-07-17	Jiaao Li, Dominic Fischer	Everyone else	Julio Perez	COACH student	Demo day!
15	2024-07-24	Jiaao Li, Dominic Fischer	Everyone else	N/A	COACH student	Retrospective
Product	t owners, software	developers, and Scurm Maste	r are set and ideally don't change	e over time; the critical part is the F	Release Manager role you need to	define here

AMOS P8 - Planning Document Product Goal

Product Vision	Project Mission
This project aims to simplify the Cloud Native ecosystem by resolving information overload and fragmentation within the CNCF landscape. Our vision is a future where developers and users can effortlessly obtain detailed, context-aware answers about CNCF projects, thereby boosting productivity and enhancing comprehension.	 Automated Dataset Preparation:Develop an automated system that prepares structured datasets from CNCF landscape documentation. NER Integration: Utilize Named Entity Recognition (NER) to extract key entities from the CNCF documentation, categorizing the data into predefined groups, establishing specific entities unique to the CNCF landscape and construct the relationships between entities. LLM Fine-Tuning: Enhance a Large Language Model specifically tailored to the prepared dataset for precise and relevant responses. Open Source Contribution: Release and open-source the fine-tuned model, dataset preparation tools, and NER integration methodologies to the community, fostering collaboration and innovation.

AMOS P8 - Planning Document Product Glossary

Term	Definition
Q&A dataset	To retrain a LLM with Gemma as base model the data has to be in a Question and Answer format. The Q&A dataset contains CNCF related data in this Q&A format
raw dataset	The raw dataset contains CNCF related content that we extracted
Gemma model	open LLM by Google
CNCF	abbr. for Cloud Native Computing Foundation, technologies that provide the basics for cloud computing
FAUs HPC	High Performance Computing of FAU, where our LLM will be trained

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Mid-Project Release plan

Sprint	Goal	Feature Name	Est. Size	Est. Remaining	Real Size	Real Remaining
Releas	e					
Total			91	91		
Sprints						
1-2	Implement ETL process		26	91	22	91
3	Research and Identify the suitable LLM		19	65	19	69
4	Develop Q&A Pairs Transforming Pipline for model training		28	46	24	50
5	Enhance the Quality of Q&A Dataset and Research for NER		18	18	0	26
Feature	es					
1-2	Implement ETL process	Identify Wahnagas for the Vyhamatas I I M dataset	5		3	
1-2	Implement ETE process	Identify Webpages for the Kubernetes LLM dataset Extract Content from CNCF sources	1		5	
		Transform extracted data into a unified Format			5	
			5 2			
		Load data to Hugging Face	3		2	
		Monitoring of the ETL process by Logging				
		Identify Repositories for the Kubernetes LLM dataset Create Software architecture draft	5		5	
•	December of the wife the collection is an		5		5	
3	Research and Identify the suitable LLM	Research Open-Source LLMs	3		3	
		Conduct Largue Langage Base Model Selection Process	5		5	
		Create a Report on LLM Research Findings	3		3	
		Enhance Software Architecture Draft - Detail Machine Learning Pipeline	5		5	
		Extract the dataset from Hugging Face	3		3	
4	Develop Q&A Pairs Transforming Pipline		3		3	
		Research Q&A Pairs Pipeline	3		5	
		Implement an Initial Question Extraction Function	5		5	
		Implement an Initial Answer Matching Function	5		2	
		Implement an Initial Generator for enriching Q&A Pairs	5		5	
		Store Q&As in Hugging Face	5		2	
		Exclude Non-English Content from Raw Dataset	2		2	
5	Enhance the Quality of Q&A Dataset and Research for NER	Improve the Q&A Pairs Transformation Pipeline	5			
		Improve the Performance of Data Unifying Script	3			
		Research and Select a Suitable NER Tool or Library	5			
		Learn How to Utilise the HPC	5			

AMOS P8 - Planning Document Final Project Release plan

Sprint	Goal	Feature Name	Est. Size	Est. Remaining	Real Size	Real Remaining
Release						
Total			0	0		
Sprints						
1			0	0	0	0
2			0	0	0	0
3			0	0	0	0
				0		0
Feature	es					
1						
2						
3						

AMOS P8 - Planning Document Definition of Done

#	Feature Definition of Done	Sprint Release Definition of Done	Project Release Definition of Done
1	Bill of Materials in the planning document has been updated	Project builds, deploys, and tests successfully	User documentation has been updated
2	All the complex logics have been tested	HuggingFace data Repo update scripts succeed	Architecture documentation has been updated
3	All feature branches have been mergened and closed	Sprint release notes have been written	Release plan has been updated
4	New feature code has been documented	change log is updated	Sprint Release DoD is fulfilled
5	Potential new licenses have been checked		
6	All GitHub Actions are passing		
7	The requirement.txt is updated		

AMOS P8 - Planning Document Documentation

Type	Link / reference

AMOS P8 - Planning Document

Bill of Materials

#	Context	Name	Version	License	Comment
					taken from https://archlinux.
	1 roboto font used for team logo	ttf-roboto	2.138-4	Apache-2.0	org/packages/extra/any/ttf-roboto/
	2 handle yaml files	PyYAML	6.0.1	MIT License	
	3 make requests	requests	2.31.0	Apache-2.0	
	4 cache reponses of requests	requests_cache	1.2.0	BSD License	
	5 mock for unit tests	mock	5.1.0	BSD License	

AMOS P8 - Planning Document Sprint Goals

Sprint #	Sprint goal
1	Project Initialisation and Meeting with Kubernetes
2	Implement ETL process
3	Research and Identify the suitable LLM
4	Develop Q&A Pairs Transforming Pipline for model training
5	Enhance the Quality of Q&A Dataset and Research for NER
6	Initial training of the CNCF LLM
7	
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AMOS P8 - Planning Document Planning Poker

Last Name	First Name	Value			
Schäffer	Daniel	E	5.00	OK	
		5	5.00	OK	
Perez	Julio	5		_	
			0	No size	
Rezaei	Ahmad Anosh	5	1	Trivial size	
			2	Small size	
Pansuriya	Yashodhar	5	3	Medium size	
Wielenberg	Christian	5	5	Large size	
			8	Very large size	
			13	Too large (size)	