Project Name	Geo Data Search
Production system (if any)	N/A
Test system (if any)	N/A
GitHub repository	https://github.com/amosproj/amos2021ws01-geo-data-search
GitHub kanban board (project)	https://github.com/amosproj/amos2021ws01-geo-data-search/projects/1
Team T-shirt (white)	https://www.shirtinator.de/loadBasket/OfTfNI5QEYU
Team T-shirt (black)	https://www.shirtinator.de/loadBasket/OfTfNI5QEYU
Additional materials:	
Miro Board	https://miro.com/app/board/o9J_loTR8bM=/

Last Name	First Name	GitHub User Name	Email Address
Dargel	Olivia	oliviadargel	olivia.dargel@tu-berlin.de
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Goals	Working deliverables
	80% Test Coverable (Decide what kind of tests we will have?)
	Everyone will learn how to work in an agile Team.
	Max 60 minutes meetings
Meeting norms	One meeting per week (Thursday 12:30 pm).
	Sub teams can meet more often.
	Meetings are mandatory.
	Being late is acceptable with good reason behind it (better to communicate it before the meeting).
Working norms	We will separate ourselves into sub teams.
	each sub will decide about their part in the project
	Be open to feedback
	Deliverables must be made until wednesdays 8 p.m., such that one person can upload the final version
Coordination norms	No moderator in meetings (One person reminds others to “focus” if the conversation goes off track)
	Feel free to ask for help/second opinions
Communication norms	Discord outside of meetings
	Try to check Discord every day
	@ somebody if faster feedback is needed
Consideration norms	Disagreements are solved democratically in the smallest possible team/subteam
	Side convos are fine
Cont. improvement norms	Tracking is not strict, we estimate the tickets and track the estimated progress by burnt story points
	Ask the stakeholder in the progress tracking
Rewards	Beer, Radler, Alster or any non-alcoholic beverage
Sanctions	Kick a member from the group after repeated failure of communication
Link to "signed" document	https://docs.google.com/document/d/1Ggt-l91JvP-I-VQKXPaPdtN8rtjWDHj53nBrgt91yYg/edit?usp=sharing

#	Meeting Day	Comment	Coach	Product Owner	Software Developer	Release Manager	Scrum Master
1	2021-10-21	Introduction, Team Contract, Discussion of Architecture preferences	Yes	Nikita Khakham, Olivia Dargel	Everyone else	-	Coach
2	2021-10-28	Regular Sprint Meeting	Yes	Olivia Dargel	Everyone else	Christoph Jacob Hermann	Coach
3	2021-11-04	Regular Sprint Meeting	Yes	Nikita Khakham	Everyone else	Nikita Khakham	Coach
4	2021-11-11	Regular Sprint Meeting	Yes	Olivia Dargel	Everyone else	Nikita Khakham	Coach
5	2021-11-18	Regular Sprint Meeting	Yes	Nikita Khakham	Everyone else	Nikita Khakham	Coach
6	2021-11-25	Regular Sprint Meeting	Yes	Olivia Dargel	Everyone else	Nikita Khakham	Coach
7	2021-12-02	Mid-project release due	Yes	Olivia Dargel	Everyone else	Christoph Jacob Hermann	Coach
8	2021-12-09	Regular Sprint Meeting	Yes	Nikita Khakham	Everyone else	Nikita Khakham	Coach
9	2021-12-16	Regular Sprint Meeting	Yes	Olivia Dargel	Everyone else	Nikita Khakham	Coach
10	2022-01-13	Regular Sprint Meeting	Yes	Nikita Khakham	Everyone else	Nikita Khakham	Coach
11	2022-01-20			Olivia Dargel	Everyone else	Nikita Khakham	Coach
12	2022-01-27						
13	2022-02-03		Yes				
14	2022-02-10	Demo day / final release					
15	2022-02-17	Project retrospective due					

Term	Definition
Component	One of the three runtime components (Frontend, Backend or NLP Component)
external API	public API for routing, geographical or topological search, attached to Backend
Named Entity Recognition, NER	technique of NLP, extracts previously defined entities (e.g. places, persons)
Natural Language Processing, NLP	process consisting of multiple subroutines (e.g. preprocessing, NER, Intent Detection) - which subroutines are executed depends on the respective use case
Preprocessing	subroutine of NLP, describes multiple steps of data preparation through text transformation
Postprocessing	subroutine of NLP, analyzes the text after labels (e.g. dor NER or Intent Detection) were set
(user) search query, user input	term the user searches for through the Frontend text input field (or perhaps with voice input)

Product Vision	Project Mission
The Geo Data Search Project will allow companies worldwide to find desired testing routes for their newest prototypes, matching geographical properties like elevation, length and gradient as close as possible. The same parameters may be used to find various routes for cyclers, joggers or even ambitious wine enthusiasts looking for the optimal place to set up a winery. A user can conveniently input their search query by voice or via text be it on mobile, tablet or desktop.	The project mission is to achieve an interpretation of buzzword user queries in German through a web interface concerning location, length, height (difference) of public routes, places and regions. Multiple results, routes or places, matching the user query as close as possible will be displayed in a list as well as in a map. The software should be usable from desktop web browsers and be intuitive - an option to get examples for possible inputs in the web interface will be provided nevertheless.

#	Theme	Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-Down
1	**Organisation**				3		3	
		Make irregular deliverables						
			design team logo	2		2		
			design team T-Shirt					
			create Kanban board with labels	1		1		
			write team contract					
			submit t-shirt preferences					
2	**Architecture**				22		22	
		Plan architecture, Skeleton implementation, make irregular deliverables						
			external API research	5		5		
			capabilities of HERE API	3		3		
			Frontend tech stack choice	5		5		
			Draft for JSON format					
			NLP component architecture	3		3		
			Deploy Docker container with Hello World	3		3		
			Visualization and description of architecture	3		3		
3	**Establishing Communication between Components**				29		26	
		User - Frontend Communication, Communication from Frontend to Backend, from Backend to NLP Component (and vice versa), implementation of NLP component skeleton						
			Interface for string input	3		3		
			Frontend design draft	5		5		
			Backend interface for communication with Frontend	5		3		
			Frontend interface for communication with Backend	5		5		
			Backend interface for communication with NLP Component	3		2		
			NLP Component interface for communication with Backend	3		2		
			Implementation of current JSON structure	3		3		
			Best Practices for NLP Research	2		3		
4	**Data Roundtrip through all Components**				24		29	
		Make irregular deliverables, enhance NLP Component and Communication, add Error Handling						
			Write product vision					
			Write project mission					
			Define Definition of Done					
			Generate dummy training data	5		5		
			Set up NLP preprocessing pipeline	3		5		
			NLP Component: Restructure return format for Backend	3		3		
			JSON format for Communication between Backend and Frontend	5		5		
			Open Street Map research	5		8		

#	Theme	Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-Down
			Implementation of Error Handling in Frontend and Backend	3		3		
5	**NLP model training & backend internal infrastructure**							
		Model training, Version Tracking, enhancements in Front- and Backend, make irregular deliverables			32		35	
			Training of NLP Model	5		8		
			Data set creation	5		5		
			Model evaluation	3		3		
			Backend refactoring	9		9		
			Send search result to Frontend	3		3		
			Show versions of all components in Frontend	2		2		
			Send component version to Frontend	2		2		
			Develop mode for debugging	3		3		
			Provide video					
			Mid-Project Release Tracking					
6	**First running version with Locations**							
		Usability improvement, Information Retrieval, make irregular deliverables			36		38	
			Show map with search results	10		10		
			Show loading state	2		2		
			Use API Key for external APIs	5		3		
			Get information from external API	13		13		
			Extract NER labels	3		3		
			Preparation script for NLP	-		2		
			Backend tests	3		5		
			Documentation (for user, design, build/deploy)					
			Final Project Release Plan					

#	Theme	Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-Down
7	**Component feature alignment**							
		Parse amount entity, Support routing, Frontend enhancements			39		41	
			Map user input on predefined keywords	4		5		
			Get and convert unit	4		4		
			Extract min and max	5		5		
			Request Routes	3		3		
			Backend extension for routing	13		12		
			Search results shown on map	2		3		
			Interrupt search	3		3		
			Docker enhancements	5		6		
8	**Integration of further routing search attributes**							
		Support features from external APIs, Refine query_object entity, Finish Frontend base version			36		34	
			Extension of internal communication interfaces	3		2		
			Electric car charging points	8		8		
			Clickable resultlist and markers	5		5		
			Responsive UI	5		5		
			Extract route length from user query	2		2		
			Extract route gradient from user query	2		2		
			NLP Query object tests	3		2		
			API Decision	3		3		
			Experimental new NER model for NLP	5		5		
9	**Preparation for new features**							
		Prepare length of routes, Prepare curve properties, Test Frontend, Prepare data set improvement			60		55	
			Algorithm draft for route lengths	5		2		
			Algorithm draft for curve properties	5		5		
			Test implementation Frontend (including Integration into pipeline)	5		5		
			Integration of Toll Roads	4		8		
			Integration of Charging Stations	13		13		
			Collect user inputs	14		7		
			NLP: Easier addition of features	3		3		
			Draft for new dependency analysis	3		3		
			Request-Response log file	2		3		
			How to release artifacts for Stakeholder?	3		3		
			Labels on map markers	3		3		
10	**Sprint 9 follow up**							
		Data set improvement, Finish last week's implementations, Testing			21			
			Add new user inputs to data set	2				
			Model training optimization	3				
			Implementation of algorithm for route lengths	5				
			Implementation of algorithm for curve properties	5				
			Comparison of user input with result	3				
			Comparison UI MockUp with UI	3				
11	**Result ranking and visible routes on map**							
		Prepare result list ranking, Finish NLP Component, Frontend enhancements			26+X			

#	Theme	Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-Down
			Algorithm draft for result list ranking	5				
			Implementation of result list ranking algorithm 1/2	5				
			NLP Component refinements (tbd)	tbd				
			Routes shown on map	8				
			Automatic dark theme for UI	5				
			Frontend Tests for Sprint 8 features	3				
12	**Finish planned implementation**							
		Finish Backend, Implement result list ranking in Frontend, make irregular deliverables			14+X			
			Implementation of result list ranking 2/2	8				
			Interface extension: result list gets priorities	3				
			Implement ranking in UI	3				
			Complete still open tasks	tbd				
			Demo Day Video					
			Demo Day Slides					
13	**Clean up and fix**							
		Fix known bugs, Finish posptoned tasks, make irregular deliverables			tbd			
			tbd	tbd				
			Finish documentation					
14	**Report, Retrospective**							
		Make irregular reliverables						
			Project Summary					
			Project Retrospective					

#	Feature Definition of Done	Sprint Release Definition of Done	Project Release Definition of Done
1	Code was reviewed by at least one person	All originally planned Tickets have been accepted in the sprint review	User documentation is available
2	Git CI runs successfully	If documentation was needed - It's committed and pushed to github	Developer documentation is available
3	Feature is merged into main branch	Sprint Release is present and tagged	Test coverage above 50%
4			No started but not finished tasks available

Sprint	Status	Source	Impediment	Resolution
1	Resolved	Lukas Meister	Some team members were absent from the first team meeting without notifying anyone.	Everyone manages to consider the team meetings and notifies the team ahead of time if attendance is not possible.
1	Resolved	Lukas Meister	More additional group meetings necessary in order to coordinate the team work and specific tasks.	Weekly group meetings set up, with an extra meeting with the client every friday.
2	Resolved	Lukas Meister	Break down complex tasks into more managable, smaller tasks and assign them to a specific sub-group.	Continous effort: Tasks will be devided into smaller tasks and assigned to the respective sub-group.
3	Resolved	Lukas Meister	POs had to wait longer periods of time for replies to their questions or for tasks to be done, could not reach out to team members properly.	Team members have been alerted to reply appropriately and support POs in their tasks.
3	Resolved	Lukas Meister	One team member had too many assigned tasks and did not feel comfortable with the amount of new input to be processed.	POs broke down the respective team members tasks and offered help for the specific topic.
5	Resolved	Lukas Meister	A change in the sub-teams was needed to replace one team member that would not be available for the week in order to still get the necessary work done.	The backend team received an additional member and was able to successfully complete all relevant tasks.
5	In-work	Lukas Meister	One team member proposed to start development phase within a sprint a bit earlier so that work wouldn't pile up at the end of a sprint and risk a bad release.	Development phase started right away and ensured timely progress within the sprint. This will be an ongoing task to be looked after.
5	Resolved	Lukas Meister	One team member/PO would not be available the coming week, replacement for PO tasks and release manager needed.	Replacement found and did a great job!

Type	Link / reference
GitHub Wiki Home	https://github.com/amosproj/amos2021ws01-geo-data-search/wiki
User Documentation	https://github.com/amosproj/amos2021ws01-geo-data-search/wiki/User-Documentation
Design Documentation	https://github.com/amosproj/amos2021ws01-geo-data-search/wiki/Design-Documentation
Build Documentation	https://github.com/amosproj/amos2021ws01-geo-data-search/wiki/Build-Documentation

#	Context	Name	Version	License	Comment
1	NLP Component	spacy	3.1	MIT	for NLP tasks
2	NLP Component	virtualenv	20.2.0	MIT	virtual environment builder for Python
3	NLP Component	FastAPI	0.70.0	MIT	
4	NLP Component	uvicorn	0.15.0	BSD-3	ASGI server for FastAPI
5	NLP Component	de_core_news_sm, de_core_news_md, de_core_news_lg or de_dep_news_trf	3.1.0	MIT	Models for NLP preprocessing tasks, see https://spacy.io/models/de
6	Frontend Component	React	17.0.2	MIT	Frontend JavaScript library
7	Frontend Component	Next.js	12.0.1	MIT	React framework with additional features
8	Frontend Component	Jotai	1.4.2	MIT	State management library
9	Frontend Component	Tailwind	2.2.19	MIT	CSS utility-first framework
10	NLP Component	Chatette	1.6.3	MIT	Dataset creation
11	NLP Component	pytest	6.2.5	MIT	Testing
12					

Last Name	First Name						
Hermann	**Christoph Jacob**	0		**0.00**	**OK**		
Fischer	**Erik**	0					
Mucaj	**Nebi**	0					
Khakham	**Nikita**	0					
Fidan	**Numan**	0		0	No size		
Dargel	**Olivia**	0		1	Trivial size		
Skorkina	**Veronika**	0		2	Small size		
				3	Medium size		
				5	Large size		
				8	Very large size		
				13	Too large (size)		