

<b>Project Name</b>	...
<b>Online team meeting</b>	<a href="https://fau.zoom.us/j/6803204673?pwd=WXNPdFZMNlIn d2lETkptek41ay9wUT09">https://fau.zoom.us/j/6803204673?pwd=WXNPdFZMNlIn d2lETkptek41ay9wUT09</a>
<b>Production system (if any)</b>	...
<b>Test system (if any)</b>	...
<b>GitHub repository</b>	<a href="https://github.com/amosproj/amos2023ss02-open-search-meta-data-hub">https://github.com/amosproj/amos2023ss02-open-search-meta-data-hub</a>
<b>GitHub feature board</b>	<a href="https://github.com/orgs/amosproj/projects/16">https://github.com/orgs/amosproj/projects/16</a>
<b>GitHub impediments backlog</b>	<a href="https://github.com/orgs/amosproj/projects/20">https://github.com/orgs/amosproj/projects/20</a>
<b>Team T-shirt</b>	<a href="https://forms.gle/rdXqbq1WSFjwHkSx8">https://forms.gle/rdXqbq1WSFjwHkSx8</a>
<b>Shirt Männer weiß (straight)</b>	<a href="https://www.shirtinator.de/t-shirts/gestalten/t-shirt-bedrucken#/load/share/1ede23cb-6cd8-4c7e-add4-c36230174560">https://www.shirtinator.de/t-shirts/gestalten/t-shirt-bedrucken#/load/share/1ede23cb-6cd8-4c7e-add4-c36230174560</a>
<b>Shirt Damen weiß (fitted)</b>	<a href="https://www.shirtinator.de/t-shirts/gestalten/t-shirt-bedrucken#/load/share/08540543-2925-4dbd-b6ce-0f6520efca57">https://www.shirtinator.de/t-shirts/gestalten/t-shirt-bedrucken#/load/share/08540543-2925-4dbd-b6ce-0f6520efca57</a>
<b>Google Drive</b>	<a href="https://drive.google.com/drive/folders/1q_4jGjhKRwsXwnjI5Y8Q8BE-SpLZvNBZ?usp=share_link">https://drive.google.com/drive/folders/1q_4jGjhKRwsXwnjI5Y8Q8BE-SpLZvNBZ?usp=share_link</a>
<b>Discord</b>	<a href="https://discord.gg/9sfDKWSE">https://discord.gg/9sfDKWSE</a>
<b>Mailing List</b>	oss-amos-proj2@lists.fau.de
<b>AMOS General Info</b>	<a href="#">AMOS SS 2023 - Organisation [Public]</a>
<b>Homework File</b>	<a href="https://docs.google.com/document/d/1ELeRxm30hb7p6sNm3OtpFh6HGTuOhBOW_DTp98vCRQY/edit">https://docs.google.com/document/d/1ELeRxm30hb7p6sNm3OtpFh6HGTuOhBOW_DTp98vCRQY/edit</a>
<b>Amos-Happy</b>	<a href="https://happy-amos.appspot.com/Project?project=5925364299726848&amp;course=6296268179505152">https://happy-amos.appspot.com/Project?project=5925364299726848&amp;course=6296268179505152</a>
<b>Miro Board for Retrospectives</b>	<a href="https://miro.com/app/board/uXjVMPOCVy4=/?share_link_id=101469504904">https://miro.com/app/board/uXjVMPOCVy4=/?share_link_id=101469504904</a>

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Meyer ter Vehn	Martin	martin-mtv	martin.meyerter.vehn@fau.de
Houssaen	Amir	Amir-Hussein-OTH	amir.hussein@fau.de

#	Meeting Day	Product Owner	Software Developer	Release Manager	Scrum Master	Comment
1	2023-04-19	Tawfeek Al-Sheikh, Lukas Rotsching	Everyone else	N/A	Corinna Wüllner	
2	2023-04-26	Tawfeek Al-Sheikh, Lukas Rotsching	Everyone else	Omar	Corinna Wüllner	
3	2023-05-03	Tawfeek Al-Sheikh, Lukas Rotsching	Everyone else	Jan	Corinna Wüllner	
4	2023-05-10	Tawfeek Al-Sheikh, Lukas Rotsching	Everyone else	Max Ole	Corinna Wüllner	
5	2023-05-17	Tawfeek Al-Sheikh, Lukas Rotsching	Everyone else	Leon	Corinna Wüllner	
6	2023-05-24	Tawfeek Al-Sheikh, Lukas Rotsching	Everyone else	Martin	Corinna Wüllner	
7	2023-05-31	Tawfeek Al-Sheikh, Lukas Rotsching	Everyone else	Amir	Corinna Wüllner	Mid-term due
8	2023-06-07	Tawfeek Al-Sheikh, Lukas Rotsching	Everyone else	Omar	Corinna Wüllner	
9	2023-06-14	Tawfeek Al-Sheikh, Lukas Rotsching	Everyone else	Jan	Corinna Wüllner	
10	2023-06-21	Tawfeek Al-Sheikh, Lukas Rotsching	Everyone else	Max Ole	Corinna Wüllner	
11	2023-06-28	Tawfeek Al-Sheikh, Lukas Rotsching	Everyone else	Leon	Corinna Wüllner	
12	2023-07-05	Tawfeek Al-Sheikh, Lukas Rotsching	Everyone else	Martin	Corinna Wüllner	
13	2023-07-12	Tawfeek Al-Sheikh, Lukas Rotsching	Everyone else	Amir	Corinna Wüllner	
14	2023-07-19	Tawfeek Al-Sheikh, Lukas Rotsching	Everyone else	Omar	Corinna Wüllner	Demo day!
15	2023-07-26	Tawfeek Al-Sheikh, Lukas Rotsching	Everyone else	Jan	Corinna Wüllner	Retrospective

<b>Goals</b>	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
<b>Meeting norms</b>	Everybody has to show up
	Don't waste your teammates time
	Everyone comes prepared to the meetings
	Everyone is motivated and contributes actively
<b>Working norms</b>	Decissions are made democratically
	We support each other
<b>Coordination norms</b>	Everyone is responsible for his/her assigned tasks and has to deliver. If problems arise, tell the team in time
	Every developer can pick tickets for each sprint. Try to respect others' wishes
	POs moderate the meeting, but everyone can always state his/her opinion
<b>Communication norms</b>	Respect everyone's opinion
	Respond to messages at least on the next day
	Everyone checks all message channels at least on time per day (except weekends)
<b>Consideration norms</b>	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
<b>Cont. improvement norms</b>	Try to improve the quality by giving constructive feedback
	Respect that every developer has his/her own way of doing things
	Try to find the underlying reason if the sprint plan fails
<b>Rewards</b>	We occasionally have meetings just for fun (eat dinner, drink some beer e.g.)
<b>Sanctions</b>	We always try to solve problems immediately as a team. If that does not work out we will sanction specific behavior or a member after a democratic discussion
<b>Signed by</b>	Rotsching
	Miltner
	Al-Sheikh
	Elliger
	Ninach

	Corinna Wüllner
	Klaus
	Martin
	Houssaen

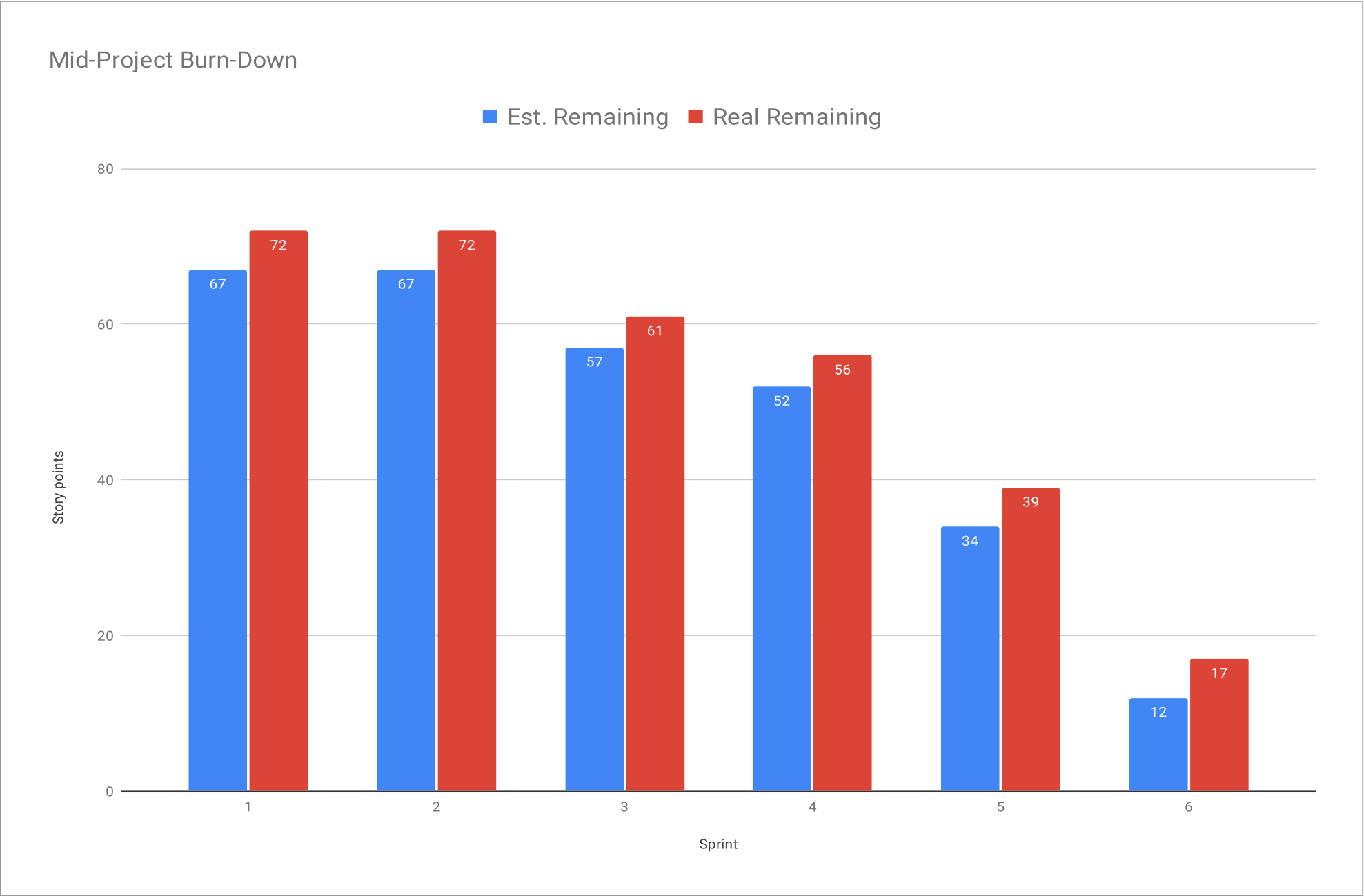
Product Vision	Project Mission
<p>GRAUDATA has a product called Metadata-Hub. This is a tool that can index huge amounts of unordered data and thus enables its users to search and analyse this data. Simply put - it's a data mining tool.</p> <p>The Metadata-Hub comes with a dashboard that already has a search function. However, its capabilities are fairly limited and searching is only one function in this dashboard that is more of an admin console than a tool for regular users to interact with.</p> <p>GRAUDATA's customers want a sleek yet powerful, scalable and easy to use search and statistics tool.</p> <p>The OpenSearch Metadata-Hub provides exactly this. It is a fully self-contained tool that can import data from a Metadata-Hub core into an OpenSearch node. It comes with a sleek webinterface that enables the user to easily build complex search queries for OpenSearch and it shows statistics about the data, while not being overloaded with functionality unrelated to searching and statistics. This webinterface is usable by everyone that knows how to use a search engine.</p>	<p>The mission of the project is to setup the basic structure for the product and implement the core functionalities.</p> <p>These are:</p> <ul style="list-style-type: none"> <li>- run an OpenSearch node</li> <li>- run an OpenSearch-Dashboards container that connects to the OpenSearch node</li> <li>- automatically import data from a Metadata-Hub core into the OS node</li> <li>- provide a website with a search bar and elements to create more complex search queries (e.g. boxes to add extra filters to the search)</li> <li>- show statistics and graphs generated by the OpenSearch dashboard on the website that is intended for the user</li> <li>- wrap everything into docker containers and create a docker-compose file or bash script so users can start the whole system with one command</li> </ul> <p>Every customer has his own individual needs, especially when it comes to the statistics functionality. Thus, the whole product needs to be easily adaptable by the customer. We provide more of a template with some examples of what could be done and how, than a production-ready product.</p> <p>Good documentation, not only on how to use the product but especially on what could be changed, how and where, is therefore mandatory!</p>

Term	Definition
MdH	GRAUDATA's Metadata-Hub. A data mining tool.
OS	OpenSearch. A powerful and scalable tool to build search and analytics engines.

Sprint	Theme	Goal	Feature Name	Est. Size	Est. Remaining	Real Size	Real Remaining
<b>Release</b>	Mid-term						
	<b>Total</b>			67	67	72	72
<b>Sprints</b>							
1	<b>Get to know the team</b>			0	67	0	72
2	<b>OpenSearch and GRAUDATA MdH</b>			10	67	11	72
3	<b>Architecture and Project Setup</b>			5	57	5	61
4	<b>Frontend and Docker</b>			18	52	17	56
5	<b>Simple Search and a nice website</b>			22	34	22	39
6	<b>Advanced Search and Documentation</b>			12	12	17	17
<b>Features</b>							
<b>1</b>	<b>Get to know the team</b>						
		Get to know the team members and try to guess what the project will be about, even though we didn't have a meeting with our industry partner so far. Refresh your python skills.					
<b>2</b>	<b>OpenSearch and GRAUDATA MdH</b>						
		Get as much information as possible about the technologies we need to work with.					
			Research: GRAUDATA Meta Data Hub	3		3	
			Research: Docker	2		3	
			Research: CI/CD pipeline	2		2	
			Research: OpenSearch and Apache Lucene	3		3	
<b>3</b>	<b>Architecture and Project Setup</b>						
		Design an architecture for the software and set up the basics.					
			Setup OpenSearch	3		0	
			Setup OpenSearch Dashboard	2		5	
<b>4</b>	<b>Frontend and Docker</b>						
		Create a website so users can interact with our system. Implement search functionality on this website. Put everything into docker containers for an easy setup.					
			Simple website	2		2	
			Research Dashboard Statistics	3		3	
			Simple Search	5		5	
			Python script for automated import of data from an MdH Core	5		5	
			Create an MdH-OpenSearch docker container	3		2	
<b>5</b>	<b>Simple Search and a nice website</b>						



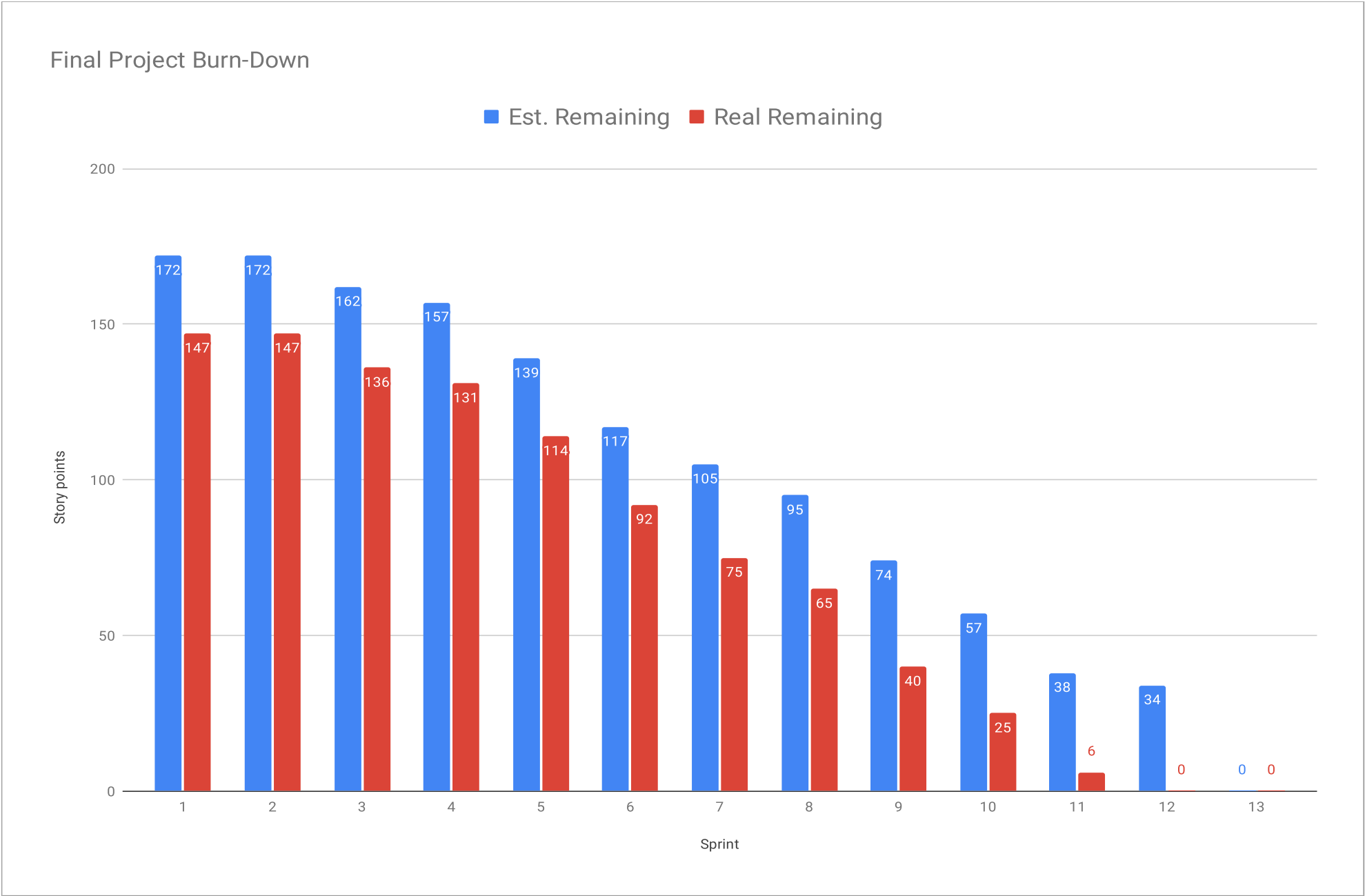
Sprint	Theme	Goal	Feature Name	Est. Size	Est. Remaining	Real Size	Real Remaining
		Use the power of a webframework so we don't have to do everything ourselves. Improve the backend.					
			Setup backend for the website	3		3	
			Efficient data transportation	5		5	
			Documentation	3		1	
			Statistics: Filetypes	3		5	
			Migrate the website to a webframework	2		3	
			Data types	3		3	
			Build process video	3		2	
6	Advanced Search and Documentation						
		Write user/build/deploy documentation Implement an advanced search that allows to create custom filters that can be combined freely.					
			Design and build/deploy Documentation	3		3	
			Setting up a CI/CD pipeline for automated testing	3		3	
			Advanced Search Frontend	3		3	
			Advanced Search Backend	3		8	



Sprint	Theme	Goal	Feature Name	Est. Size	Est. Remaining	Real Size	Real Remaining
Release	Final-term						
	Total			172	172	147	147
Sprints							
1	Get to know the team			0	172	0	147
2	OpenSearch and GRAUDATA MdH			10	172	11	147
3	Architecture and Project Setup			5	162	5	136
4	Frontend and Docker			18	157	17	131
5	Simple Search and a nice website			22	139	22	114
6	Advanced Search and Documentation			12	117	17	92
7	Refactoring			10	105	10	75
8	Data visualizations and Import pipeline			21	95	25	65
9	Error handling and video-scripts			17	74	15	40
10	Config file and front end quality of life			19	57	19	25
11	Specific versions and Data visualizations			4	38	6	6
12	Config file and automated import pipeline			34	34	0	0
13				0	0	0	0
Features							
1	Get to know the team	Get to know the team members and try to guess what the project will be about, even though we didn't have a meeting with our industry partner so far. Refresh your python skills.					
2	OpenSearch and GRAUDATA MdH	Get as much information as possible about the technologies we need to work with.	Research: GRAUDATA Meta Data Hub Research: Docker Research: CI/CD pipeline Research: OpenSearch and Apache Lucene	3 2 2 3		3 3 2 3	
3	Architecture and Project Setup	Design an architecture for the software and set up the basics.	Setup OpenSearch Setup OpenSearch Dashboard	3 2		0 5	
4	Frontend and Docker	Create a website so users can interact with our system. Implement search functionality on this website. Put everything into docker containers for an easy setup.	Simple website Research Dashboard Statistics Simple Search Python script for automated import of data from an MdH Core	2 3 5 5		2 3 5 5	

Sprint	Theme	Goal	Feature Name	Est. Size	Est. Remaining	Real Size	Real Remaining
5	Simple Search and a nice website		Create an MdH-OpenSearch docker container	3		2	
		Use the power of a webframework so we don't have to do everything ourselves. Improve the backend.					
			Setup backend for the website	3		3	
			Efficient data transportation	5		5	
			Documentation	3		1	
			Statistics: Filetypes	3		5	
			Migrate the website to a webframework	2		3	
			Data types	3		3	
			Build process video	3		2	
6	Advanced Search and Documentation						
		Write user/build/deploy documentation Implement an advanced search that allows to create custom filters that can be combined freely.					
			Design and build/deploy Documentation	3		3	
			Setting up a CI/CD pipeline for automated testing	3		3	
			Advanced Search Frontend	3		3	
			Advanced Search Backend	3		8	
7	Refactoring						
		Clean up the code and remove/reduce technical debt so we can start into the second phase with a clean and easy to work with code base. Tweaks to the UI					
			Show more info about search results	2		2	
			Refactor backend	5		5	
			Include statistics created by the OpenSearch Dashboard on your own site	3		3	
8	Data visualizations and Import pipline						
		The statistics from the Open Search Dashboard are automatically imported into the project website. The script for importing data into MdH-OS will take timestamps into account.					
			Refactor Front-End	5		8	
			Import pipeline	5		8	
			Automatic detection of data visualizations	5		3	
			Remove filter criteria from an advanced search	3		3	
			Advanced search (list tags)	3		3	
9	Error handling and video-scripts						
		In this sprint we laid the groundwork for the config file by using a GraphQL library to dynamically create the request to the MdH. Further, we improved error handling in the backend and started to write scripts for short explanation videos.					
			GraphQL API	3		3	
			Better error handling	3		2	
			Video-Scripts	3		2	
			Search Tag Boosting	5		5	
			Design Overhaul	3		3	
10	Config file and front end quality of life						

Sprint	Theme	Goal	Feature Name	Est. Size	Est. Remaining	Real Size	Real Remaining
		Add a global config file that allows to tweak the product in one central place Quality of life improvements for the front end like 'only showing operators that match the type of the selected tag' and improved statistics visualization Improve the import pipeline by making it more error tolerant					
			Config file	3		3	
			Error resolving import pipeline	5		8	
			fuzzy find tags	3		3	
			Meaningful operators	5		5	
			Show whole Dashboards instead of single visualizations	3			
11	Specific versions and Data visualizations						
		Display whole 'OpenSearch-Dashboards' dashboards on the visualizations page so users can use 'OpenSearch-Dashboards' to create, resize and arrange visualizations. Set specific versions for all dependencies instead of 'latest' so the project will still build and run without problems 1 year into the future.					
			Set specific versions for all dependencies	1		1	
			Show whole Dashboards instead of single visualizations	3		5	
12	Config file and automated import pipeline						
		Finish leftover work from the last sprint (Add more settings that can be controlled via the config file. Automatically run the import pipeline periodically. Add a paging mechanism to the search result list)  Record the code documentation video that Mike requested and prepare slides and a project summarizing video for the demo day					
			Configfile: add option to set imported tag names	3			
			Configfile: add option to change the MdH import limit	2			
			Configfile: import pipeline filters	3			
			Run import pipeline periodically	5			
			Show all search results and build a paging mechanism	8			
			Demo Day Video	5			
			Demo Day Slide	2			
			Demo Day Slide Deck	3			
			Video recordings	3			
13							



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Type	Link / reference



#	Context	Name	Version	License	Comment
	<a href="https://opensearch.org">opensearch.org</a>	OpenSearch	2.8.0	Apache License, Version 2.0 (ALv2)	
		GRAU DATA MdH Python SDK	2.3.0	?	
		GRAU DATA Meta Data Hub	2.3	?	
	<a href="https://flask.palletsprojects.com/en/2.3.x/">https://flask.palletsprojects.com/en/2.3.x/</a>	Flask	2.3.2	BSD License (BSD-3-Clause)	Framework, used for creating a Webserver
	<a href="https://opensearch-project.github.io/opensearch-py/">https://opensearch-project.github.io/opensearch-py/</a>	opensearch_py	2.2.0	Apache Software License (Apache-2.0)	Library, used to as an API to OpenSearch
	<a href="https://github.com/theskumar/python-dotenv">https://github.com/theskumar/python-dotenv</a>	python-dotenv	1.0.0	BSD License (BSD-3-Clause)	Library, used to create an environment
	<a href="https://pypi.org/project/python-dateutil/">https://pypi.org/project/python-dateutil/</a>	python-dateutil	2.8.2	license with Apache 2.0	standard Python datetime module
	<a href="https://github.com/denisart/graphql-query">https://github.com/denisart/graphql-query</a>	graphql-query	1.1.1	MIT License	Library, used for creating GraphQL queries
	<a href="https://github.com/pandas-dev/pandas">https://github.com/pandas-dev/pandas</a>	pandas	2.0.2	BSD License (BSD-3-Clause)	Flexible and powerful data analysis / manipulation library for Python
	<a href="https://github.com/helloflask/bootstrap-flask">https://github.com/helloflask/bootstrap-flask</a>	bootstrap-flask	2.2.0	MIT License	Bootstrap 4 & 5 helper for your Flask projects.
	<a href="https://github.com/certifi/python-certifi">https://github.com/certifi/python-certifi</a>	certifi	2023.5.7	MLP-2.0	collection of Root Certificates for validating the trustworthiness of SSL certificates while verifying the identity of TLS hosts.
	<a href="https://github.com/Ousret/charset_normalizer">https://github.com/Ousret/charset_normalizer</a>	charset-normalizer	3.1.0	MIT License	
	<a href="https://github.com/kjd/idna">https://github.com/kjd/idna</a>	idna	3.4	BSD License (BSD-3-Clause)	Internationalized Domain Names for Python
	<a href="https://github.com/psf/requests">https://github.com/psf/requests</a>	requests	2.30.0	Apache Software License (Apache-2.0)	HTTP library
	<a href="https://github.com/benjaminp/six">https://github.com/benjaminp/six</a>	six	1.16.0	MIT License	
	<a href="https://github.com/urllib3/urllib3">https://github.com/urllib3/urllib3</a>	urllib3	1.26.15	MIT License	HTTP client library for Python
	<a href="https://github.com/python/cpython">https://github.com/python/cpython</a>	configparser	5.3.0	PSF License Version 2	

Last Name	First Name	Value		#DIV/	#DIV/		
Rotsching	Lukas			0!	0!		
Al-Sheikh	Tawfeek						
Wüllner	Corinna						
Ninach	Omar						
Miltner	Jan			0	No size		
Elliger	Max Ole			1	Trivial size		
Klaus	Leon			2	Small size		
Meyer ter Vehn	Martin			3	Medium size		
Houssaen	Amir			5	Large size		
				8	Very large size		
				13	Too large (size)		