Project Name	...
Production system (if any)	http://5.183.20.2
Test system (if any)	github actions
GitHub repository	https://github.com/amosproj/amos-ss2021-project2-context-map
GitHub kanban board (project)	https://github.com/amosproj/amos-ss2021-project2-context-map/projects/1
Team T-shirt (white)	https://www.shirtinator.de/loadBasket/UEuo0qppj8j
Team T-shirt (black)	(all white)
Additional materials	...
Team Meeting Converence Room	https://teams.microsoft.com/l/meetup-join/19%3a3b8f52884ffc4100a4eb47e51093e5a7%40thread.tacv2/1618404049950?context=%7b%2

Last Name	First Name	GitHub User Name	Email Address	Kenntnisse
Wehr	Thomas	derwehr	thomas.wehr@fau.de	JavaScript, RDF, SPARQL, Turtle
Shmelev	Igor	IgorShmelev	igor.shmelev@fau.de	JavaScript, Razor (C#/HTML), C#
Trütschel	Cato	CatoLeanTruetschel	cato.lean.truetschel@fau.de	Typescript (Javascript) frontend, HTML, CSS, SPA (Blazor), C#, SW architecture
Zuber	Yannick	zuberman35	yannick.zuber@gmail.com	Project Management, basics in C & Python
Jablonski	Johannes	joluj	johannes.lukas.jablonski@gmail.com	Typescript (Angular), RxJS, HTML, (S)CSS, SW Architektur
Kopyto	Tobias	PianoRollRepresentation	kopytotobias@gmail.com	etwas Typescript, Java, C#, C++, Python
van de Logt	Jule	julevdl	jule.vandelogt@gmail.com	Project Management, SCRUM, Grundkenntnisse C & Python

Goals	Work in a smooth and constructive environment as a team.
	Achieving our project goals within the set time frame.
Meeting norms	Unless it's an emergency, we will let the team know at least the night before, if we cannot participate in a scheduled team meeting.
	Everyone participates and initially talks about their painpoints and mindset for the past week.
Working norms	We agree on a common style guide for code, which everyone has to follow including clear comments. We switch key rolls throughout the project, so everyone gets the chance to participate in different areas.
	We review code together with another team mate (4 - eyes principle). Both developers and product owners will agree on a testing method and apply it for every feature.
Coordination norms	We focus on key problems to not waste meeting time, further discussions will be conducted in a smaller scale.
	For every feature we will assign two team members as responsibles.
Communication norms	We communicate problems and issues immediately and openly within the team. We ask for help whenever needed. We won't judge team members when they ask for help. We check our communication channel (Teams) at least once every 24 hours on weekdays.
	We try to communicate criticism in a positve way. If we notice possible mistakes in someone's work, we openly communicate it in a friendly and polite way.
Consideration norms	We make decisions based on everyone's best interest (democratic votes).
	We do not judge anyone for having different opinions, but discuss it openly and in a friendly manner.
Cont. improvement norms	We automatically review and test our work on a regular basis according to the agreed manner.
	We track everyone's well-being by regularly checking the happiness index and asking team mates for feedback.
Rewards	We will give out a round of virtual applause for every released feature.
	We will have virtual coffee rounds to chat in a more informal way and celebrate our team work throughout the week.
Sanctions	Whoever joins a meeting late more than 3 times is obliged to sponsor the next virtual coffee meeting.
	If we notice any violations of this team contract, we will point it out to our fellow team mates.
Miriam, Tobias, Johannes, Cato, Igor, Thomas, Jule, Yannick	

#	Meeting Day	Comment	Coach	Product Owner	Software Developer	Scrum Master	Release Manager
1	2021-04-14		Yes	Jule	Everyone else	N/A	N/A
2	2021-04-21		Yes	Yannick	Everyone else	~~Jule~~	~~Johannes~~
3	2021-04-28		Yes	Jule	Everyone else	~~Jule~~	~~Tobias~~
4	2021-05-05			Yannick	Everyone else	~~Tobias~~	~~Cato~~
5	2021-05-12		Yes	Jule	Everyone else	~~Igor~~	~~Cato~~
6	2021-05-19			Yannick	Everyone else	~~Jule~~	~~Johannes~~
7	2021-05-26	Mid-term due	Yes		Everyone else	~~Cato~~	~~Cato~~
8	2021-06-02			Jule	Everyone else	~~Yannick~~	~~Tobias~~
9	2021-06-09			Yannick	Everyone else	~~Johannes~~	~~Cato~~
10	2021-06-16		Yes	Jule	Everyone else	~~Yannick~~	~~Thomas~~
11	2021-06-23			Yannick	Everyone else	~~Thomas~~	~~Tobias~~
12	2021-06-30			Jule	Everyone else	~~Cato~~	~~Thomas~~
13	2021-07-07		Yes	Yannick	Everyone else	Johannes	Tobias
14	2021-07-14	Demo day!					
15	2021-07-21	Retrospective					

Product Vision	Project Mission
The contexmap for corporate data KMAP is the best solution, helping companies worldwide to automatically turn company data into valuable insights. By leveraging modular visualizations, we empower the corporate customers throughout the enterprise to find answers to business related questions without deeper coding knowledge. A responsive step-by-step exploration facilitates quick access to the insights needed. KMAP furthers the communication and transparency across companies and along the value-chain.	The mission of this project is to create an MVP for KMAP. Core functionality will be integrating graph data bases, visualizing the graph data in a modular dashboard, and exploring the data with a no-code query builder.

Term	Definition
Nodes	Nodes are the visualization of entities in the graph
Edges	Edges are the visualization of relations in the graph
Query-Archetype	
Entities	Entry of the Database. Represents something real (e.g. 1.: Node with id 1234 with property name "Peter" is an Entity. 2.: Edge from Node "Peter" to Node "Paul" is an Entity)
Entity-Type	Either NodeType or EdgeType. Is only the abstract thing. Comparable to a class. Classes relates to objects like entity-types to entities.
Class / Klasse	Abstract "blueprint" for object. Contains information about properties and methods of objects of that class, but no values to that properties.
Objects / Instance / Instanzen	Real world representation of something. Example: Class Person says that Persons have an property "name". Then the Person with the name "Peter" is an instance/object of that class.
Subsidiary Node	A node that is only part of a query result, as there are edges part of the query result that reference the node and without the node, the edge cannot be displayed.
Path	A path is an ordered set of nodes and edges that describe a way from a start node to an end node. A path may be closed (start-node = end node) or open.
Separated subgraphs	Two subgraphs are separated, if there are no connections (no edges) between any node from one subgraph to an node from the other.
Project Manager	A project manager is a professional in the field of project management. Project managers have the responsibility of the planning, procurement and execution of a project, in any undertaking that has a defined scope, defined start and a defined finish; regardless of industry.
Team assistant	A team assistant helps carry the workload by performing administrative duties to free the members of the office team for other duties. They step right in to help with current projects so that more experienced members can focus on ways to improve the project, troubleshoot problems or address client demands.
Business Manager	Business managers drive the work of others in order to operate efficiently and to make a profit. They should have working knowledge of the following areas, and may be a specialist in one or more: finance, marketing and public relations
General User	A term that includes every user of KMAP
IT Project Manager	An IT project manager is a professional charged with overseeing the process of planning, executing and delegating responsibilities around an organization's information technology (IT) pursuits and goals.
Data Scientist	Data scientists are analytical data experts who have the technical skills to solve complex problems – and the curiosity to explore what problems need to be solved. They’re part mathematician, part computer scientist and part trend-spotter.
Quality Manager	A Quality Manager, or Quality Assurance Manager, is in charge of supervising the production process to make sure that all products meet consistent standards. Their duties include developing and implementing quality control tests, inspecting products at various stages and writing reports documenting production issues.
Business User	A user with no or few technical knowledge who's goal is to perceive rather process/business/organizational information from the software.
International User	Aggregate of users with different nationalities and thus language requirements
Engineer	A person trained in any branch of the profession of engineering. In the case of KMAP mostly car mechanics since this is the target group of CPU 24/7
Product Manager	A person concerned with the planning, management and control of products and/or services during the product life cycle from market maturity to market exit.
First Time User	A user with no experience in using KMAP and sees the interface for the first time. This means ease of use and perceived usefulness must be given by KMAP.
Paying Customer	A person, company or organisation that enters into a transaction with a counterparty as a demand party

Term	Definition

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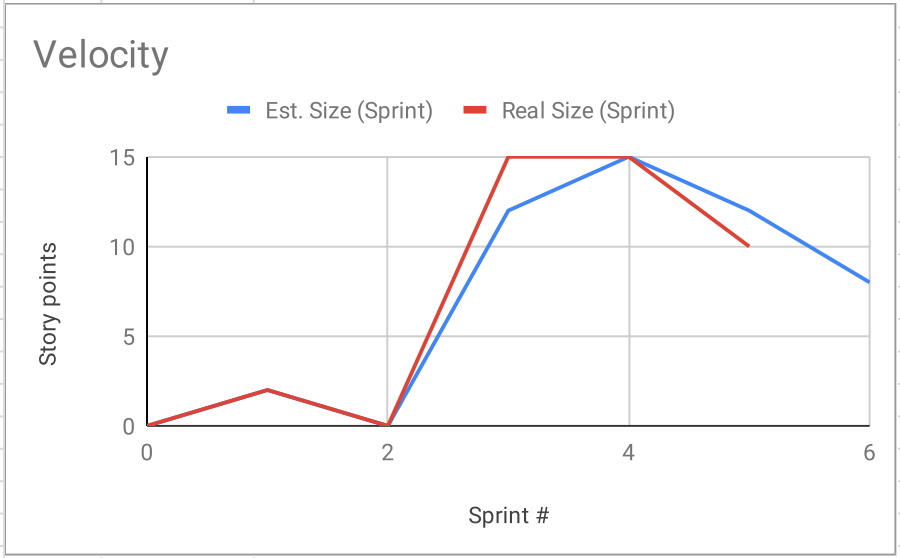
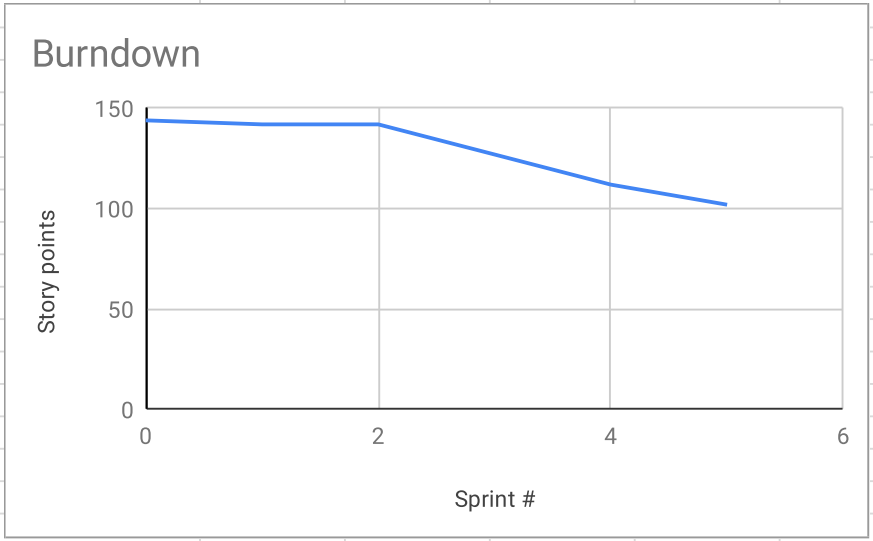
#	Theme	Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-Down
0		**Initial Burndown**			0		0	144
1	**Basic set-up**				2		2	142
		A first set up of the web page (Hello World)						
			#2 - Hello World - Project	2		2		
2	**Research**				0		0	142
		Create a common understanding of project						
3	**Database**				12		15	127
		Decide on which data base to use						
			#6 - Decide on exemplary dataset	3		5		
			#5 Find and set-up an adequate dataset	3		3		
			#9 - Query - Archetypes	3		3		
			#11 - Information Visualization	3		3		
4	**Basic Page Set-up**				15		15	112
		First set-up of webpage including navigation menu						
			#46 - Page Set up	5		5		
			#45 - Dashboard	2		2		
			#28 - Display Context Graph	8		8		
5	**Filteroptions/Querybuilder**				12		10	102
		Query Data without writing code						
			#86 - Visualization of Errors	2				
			#47 - Filteroptions	5		5		
			#30 - Searchfunction with Autocomplete	5		5		
6	**Finish Sprint 5 + AddOns** (Burn down of additional est. weight)				8			
		Clean up of Sprint 5 + some AddOns						
			#86 - Visualization of Errors	0		0		
			#47 - Filteroptions	3		13		
			#30 - Searchfunction with Autocomplete	3		8		
			#135 - Filtermenu: Separate Nodes / Relationships	1		1		
7	**Cleanup & Rest of last sprint**							
		Clean up Sprint overall						

#	Theme	Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-Down
			#134 - Sliderfunction for nodes & edges	1				
			#86 - Visualization of Errors	2				
			#199 - Cleanup & Refactoring					





Sprint	Status	Source	Impediment	Resolution
1	Resolved	Team	Problem and tasks are still unstructured, real overview over to-do's is currently missing; Team members feel overwhelmed	
2	Resolved	Jule, Yannick	fiiting the expectations of our industry-partners	work-shop for developing new ideas which are shown to our industry partners
2	Unsolvable	Yannick	Miriam gone	-
2	Resolved	Thomas	No real understanding how the endresult needs to look like	clarify with our industry partners, will probably get better in the development process
4	Resolved	Igor, Tobias	industry-partners do not want a graph visualization -> how do we design our frontend then?	with the new priorisation on the no-code-query builder and the overall workflow the visualisation could be solved easier
4	Resolved	Igor, Tobias, Johannes, Cato	Relatively imprecise idea and requirements ("product as generic as possible but specialized") of the customer complicates the step-by-step development of the product. Basic idea (query builder based on archetypes) already there, but still vague. The customer gives us only vague information and wants to see what we can do with it - planning is difficult.	At this point helps the active contact with the customer, which currently happens weekly already. Our POs take good care that the customer's requirements remain realistic and are understandable for us. With the first correct implementation that we can show, a better assessment of the customer's request can be made.
4	Resolved	Jule, Yannick	Feeling that the project has deviated from the actual idea of visualization and thus no longer follows the actual "innovation", reduces project motivation.	After the customer meeting, it became relatively clear that the user experience was the main focus. In this topic, innovation can be achieved through intuitiveness and clarity of the query builder and the actual app.
5	Resolved	Igor, Tobias, Cato	Two sides: Igor and Tobias feel like they didn't contribute enough to last week's sprint. On the other hand Cato had too much work.	Clear communication among developers when working on an issue as a group. Splitting issue into smaller pieces so everyone has clearly assigned responsibilities.
5	Resolved	Johannes, Tobias	User Stories are too large due to backend implementation necessary at the beginning of the project.	Might resolve itself, after backend is now implemented. However, PO's consider this feedback in their future Backlog planning. Will check on upcoming issues for size. Maybe split existing issues into smaller parts.
5	Resolved	Tobias	New strategy for Pull Requests - not everything last minute/ at once	Developers took this impediment to the developer's meeting.
6	Resolved	Johannes	Large delay in answers to questions to teammates on technical matters; Code changes of team-mates are not visible until shortly before sprint end (first change only on monday evening);	Commit code early to a dedicated branch and open a PR for it, such that early insight in the code and reviews are possible; Delays in communication may already have resolved themselves - otherwise our teams contract ensures that we answer at least once a day on workdays. Team members could inform others about their planning when they will we reachable up front.

Sprint	Status	Source	Impediment	Resolution
6	Resolved	Tobias	User story story was not ready in time. How much effort (time/work) do we invest before preparing the feature for the release or giving up on it for the sprint, if it is not possible to finish the feature in time. Communication on this topic (to other devs and POs) unclear.	Set a time-budget up-front and do your best to fit the work in this budget. If the time is over, don't hassle to get it ready 'in-time'. Prioritization of sprint backlog items. Better estimation of sizes. Scale-down of project scope due to reduced number of team members. Inform the POs when it's foreseeable that a feature won't get ready.
7	Resolved	Cato	Messy code basis might lead to errors down the road	Refactoring sprint
7	Resolved	Cato, Johannes	Time consumption of project too high	Allocate time slots of availability (possibly include in team calendar to facilitate and focus reachability)
7	Resolved	Jule, Yannick	Difficult to combine high customer expectations, vision and capacity of devs	Prioritize a MVP apporach to solution dev rather than perfectioning one item at a time.
8	Resolved	Jule, Yannick	Hard to create User Stories or features since the customer did not make concrete suggestions.	Ask customer directly what they like and dislike about each suggestion.
9	Resolved	Cato	Refactoring ticket was closed, noticed later that minor additional effort turned into medium larg effort. This resulted in working in Cato working on current sprint ticket by themselves	Close ticket when 100% sure that issue is resolved. Discuss with whole team to see what additional effort are required to better estimate additional size (necessary or over-engineering).
10	Resolved	Tobias, Cato	Misunderstandings over progress of others, and whether help is needed or not	Everyone try to offer help more actively when done with own tasks.
11	Created	Tobias, Johannes	User story was implemented correctly.	Send Screenshots/Screencast to POs.

#	Theme	Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-Down
0		**Initial Burndown**			0		0	144
1	**Basic set-up**				2		2	142
		A first set up of the web page (Hello World)						
				2		2		
2	**Research**				0		0	142
		Create a common understanding of project						
3	**Database**				12		15	127
		Decide on which data base to use						
			#6 - Decide on exemplary dataset	3		5		
			#5 Find and set-up an adequate dataset	3		3		
			#9 - Query - Archetypes	3		3		
			#11 - Information Visualization	3		3		
4	**Basic Page Set-up**				15		15	112
		First set-up of webpage including navigation menu						
			#46 - Page Set up	5		5		
			#45 - Dashboard	2		2		
			#28 - Display Context Graph	8		8		
5	**Filteroptions/Querybuilder**				12		10	102
		Query Data without writing code						
			#86 - Visualization of Errors	2		2		
			#47 - Filteroptions	5		5		
			#30 - Searchfunction with Autocomplete	5		5		
6	**Finish Sprint 5 + AddOns** (Burn down of additional est. weight)				8		19	83
		Clean up of Sprint 5 + some AddOns						
			#86 - Visualization of Errors	0		0		
			#47 - Filteroptions	3		8		
			#30 - Searchfunction with Autocomplete	3		8		
			#135 - Filtermenu: Separate Nodes / Relationships	1		1		
			#134 - Sliderfunction for nodes & edges	1		2		
7	**Cleanup & Refactoring - Sprint**				8		7	76

#	Theme	Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-Down
		Code Cleanup for Developers						
			#199 - Cleanup and Refactoring	5		5		
			#137 - Visualization: Hierarchical Layout	3		2		
8	**Filtermenu**							
		Enhance Usability of Filtermenu			13		13	63
			#199 - Colors of visualization	5		5		
			#232 - Shortest Path Visualization	8		8		
9	***Explorationlogic***							
		Implement the exploration logic			10		13	50
			#289 - Exploration Page	3		3		
			#290 - Visualization Preview for Exploration	2		2		
			#282 - Deployment on CPU's server	5		8		
10	**UI - Clean up and visualization**							
		Implement further visualization						
			#234 - Searchfunction mapping	5				
			#309 - Delete Subpage "Archetypes"	0		1		
			#308 - Chord-Diagram	8		5		
11	**Refactoring of existing software + UX /UI**							
		Solve bugs and make interface more intuitive			13		14	36
			#345 - Filter enhancement	3		2		
			#347 - Filter selectiom	2		3		
			#348 Exploration page preview	1		1		
			#312 - Home Page	2		3		
			#311 - Placeholder Subpages	2		2		
			#310 - Clean up UI	2		2		
			#341 - Search bar bug	1		1		
			#234 - Search function mapping	5				
12	**Small Functionalities**							
		Added small new functions to Software			13			
			#346 - Filter reset	1				
			#342 - Node details	3				
			#286 - Shortest Path Warning	2				

#	Theme	Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-Down
			#349 - Shortest Path Optimizations	2				
			#344 - Details for Chord Diagram	2				
			#44 - Scheme - visualization as graph	3				
13	**Last Finetuning**							
		Not a real sprint anymore						
			#382 - Documentation / Wiki					
			#381 - Demo Day Video as A Tour					
			#380 - Consistency in selected nodes					

#	Feature Definition of Done	Sprint Release Definition of Done	Project Release Definition of Done
	Documentation conform with tsdoc	80% Branch Coverage	No severe bugs (visible to user)
	Reviewed with 4 eyes principle	No severe bugs	Understandable documentation for developers
	did not break other code	Understandable documentation for developers	Understandable documentation for user
	Understandable documentation for developers		80% Branch Coverage

Type	Link / reference
Build/Deploy Documenation	https://github.com/amosproj/amos-ss2021-project2-context-map/wiki/Build-deploy-documentation
Technical Documentation	https://github.com/amosproj/amos-ss2021-project2-context-map/wiki/Technical-documentation
User Documentation	https://github.com/amosproj/amos-ss2021-project2-context-map/wiki/User-documentation

\		Context	Name	Version	License	Comment
frontend	included in app	Creating the Web App's UI	React	17.0.2	MIT	https://www.npmjs.com/package/react
frontend	included in app	DOM specific methods for React	React-DOM	17.0.2	MIT	https://www.npmjs.com/package/react-dom
frontend	included in app	Scripts and configuration used by React	React-Scripts	4.0.3	MIT	https://www.npmjs.com/package/react-scripts
frontend	included in app	Dependency injection	inversify	5.1.1	MIT	https://www.npmjs.com/package/inversify/v/5.1.1
frontend	included in app	Dependency injection	reflect-metadata	0.1.13	Apache 2.0	Polyfill for javascript type metadata needed for DI; https://www.npmjs.com/package/reflect-metadata/v/0.1.13
frontend	included in app	measure and analyze performance	web-vitals	1.1.1	Apache 2.0	https://www.npmjs.com/package/web-vitals
frontend	included in app	Material UI React components	@material-ui/core	4.11.4	MIT	https://www.npmjs.com/package/@material-ui/core
frontend	included in app	Material UI icons	@material-ui/icons	4.11.2	MIT	https://www.npmjs.com/package/@material-ui/core
frontend	build time only	Testing environment	cypress	5.4.0	MIT	https://www.npmjs.com/package/cypress
frontend	build time only	className utilities	clsx	1.1.1	MIT	https://www.npmjs.com/package/clsx
frontend	build time only	Style sheet preprocessing	sass	1.32.12	MIT	https://www.npmjs.com/package/sass/v/1.32.12
frontend	included in app	Multi-page routing	react-router-dom	5.2.0	MIT	https://www.npmjs.com/package/react-router-dom/v/5.2.0
frontend	build time only	Types for react-router-dom	@types/react-router-dom	5.1.7	MIT	https://www.npmjs.com/package/@types/react-router-dom/v/5.1.7
frontend	included in app	Detect container size changes to adapt graph size	@react-hook/resize-observer	1.2.0	MIT	https://www.npmjs.com/package/@react-hook/resize-observer/v/1.2.0
frontend	included in app	Async request of graph data	react-async	10.0.1	ISC	https://www.npmjs.com/package/react-async/v/10.0.1
frontend	included in app	Using vis-network with React	react-graph-vis	1.0.7	MIT	https://www.npmjs.com/package/react-graph-vis/v/1.0.7
frontend	included in app	Display graph networks (helper library)	vis-data	7.1.2	Apache 2.0 OR MIT	https://www.npmjs.com/package/vis-data/v/7.1.2
frontend	included in app	Display graph networks	vis-network	9.0.4	Apache 2.0 OR MIT	https://www.npmjs.com/package/vis-network/v/9.0.4
frontend	included in app	Typewriter animation on home page	react-typed	1.2.0	MIT	https://www.npmjs.com/package/react-typed
frontend	included in app	Chord Diagram component	react-chord-diagram	1.7.0	MIT	https://www.npmjs.com/package/react-chord-diagram
backend	included in app	Neo4j driver for JavaScript	neo4j-driver	4.2.3	Apache 2.0	https://www.npmjs.com/package/neo4j-driver
backend	included in app	Framework for server-side applications	nestjs	7.6.0	ISC	https://www.npmjs.com/package/nestjs
backend	included in app	Polyfill for Metadata Reflection API	reflect-metadata	0.1.13	Apache 2.0	https://www.npmjs.com/package/reflect-metadata
backend	?	Deep deletion module for node (like `rm -rf`)	rimraf	3.0.2	ISC	https://www.npmjs.com/package/rimraf
backend	included in app	Neo4j integration for Nest	nest-neo4j	4.2.3	ISC	https://www.npmjs.com/package/nest-neo4j
frontend, backend	build time only	Running node scripts (like pre-build) for different operating systems	run-script-os	1.1.6	MIT	https://www.npmjs.com/package/run-script-os/v/1.1.6
frontend, backend	build time only	Common code style rules	prettier	2.2.1	MIT	
frontend	included in app	Material UI lab	@material-ui/lab	4.0.0-alpha.58	MIT	https://www.npmjs.com/package/@material-ui/lab

Last Name	First Name	Value					
				3.00	#DIV/0!		
Wehr	Thomas						
Trütschel	Cato			0	No effort		
				1	Minimal effort		
Jablonski	Johannes	3		2	Small effort		
Kopyto	Tobias			3	Medium effort		
				5	Large effort		
				8	Very large effort		
				13	Too large effort		