

Project Name	Explainable Similarity Detector
Production system (if any)	...
Test system (if any)	...
GitHub repository	https://github.com/amosproj/amos2021ws06-exp-similarity-detector
GitHub kanban board (project)	https://github.com/amosproj/amos2021ws06-exp-similarity-detector/projects/1
Team T-shirt (white)	...
Team T-shirt (black)	https://www.shirtinator.de/loadBasket/OLYtK-gJU9h
Additional materials	...
Zoom-Link:	https://fau.zoom.us/j/65358072167?pwd=UFd4MFBHaU5iT3AwdVIMdnVxbXZwUT09

[illegible]

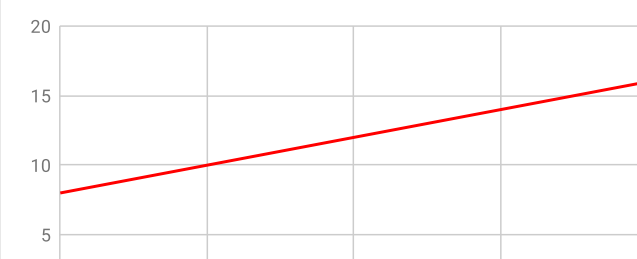
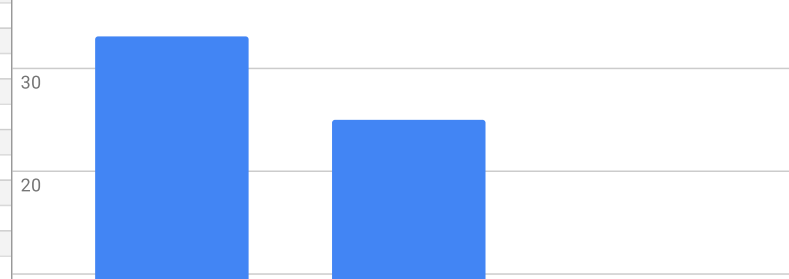
Goals	Das Ziel ist die Sicherstellung einer effektiven, verlässlichen aber auch gleichzeitig flexiblen Teamkommunikation.
	Jeden im Projekt involviert halten, indem man sich für die aktuellen Aufgaben/Probleme der anderen interessiert.
Meeting norms	Wir treffen uns alle jeden Donnerstag spätestens um 12:35 Uhr.
	Optionales 30-minütiges wöchentliches Meeting kann nach individueller Vereinbarung dazukommen.
	Mehr als 10 Minuten Verspätung müssen kommuniziert werden.
Working norms	Jeder zeigt gegenseitigen Respekt und übernimmt volle Verantwortung für ihre/seine Aufgabenbereiche.
	Features im Team besprechen, Umsetzung in den Kompetenzbereichen / Unterteams.
	Es ist ok manchmal seine eigenen Kompetenzen zu überschätzen und sich rechtzeitig Hilfe zu suchen.
	Bei einer Diskussion von mehr als (ungefähr) 15 Minuten, dann wird abgestimmt. Tie Breaker ist der PO.
Coordination norms	Product Owner sollte Telegram moderieren.
	Meeting Moderation nach Scrum Norm. Darauf achtet der Scrum Master.
	Alternative Modelle werden akzeptiert, solange sie nicht Scrum widersprechen.
Communication norms	Für die externe Kommunikation sollte Telegram genutzt werden
	Zoom für weekly calls: (https://tu-berlin.zoom.us/j/68376196208?pwd=b0N6NUFXcnFhSVB6TXFwM25aQT09)
Consideration norms	Jeder darf einmal ohne besonderen Grund, aber mit vorheriger Ansage, fehlen.
Cont. improvement norms	Wichtige Entscheidungen werden im Meeting Protokoll vom PO abgelegt.
	Jeder darf und soll ehrliches Feedback äußern.
Rewards	Gemeinsames Bier bei Projektabschluss.
	Wir wissen uns gegenseitig für unsere Arbeit wertzuschätzen.
Sanctions	2 Euro Spende an Wohltätige Organisation, wenn man etwas "verhauen" hat.
	Wahlweise Bierspende ans Team.
	xx X x x x X x }

#	Meeting Day	Comment	Coach	Product Owner	Software Developer	Release Manager	Scrum Master
1	2021-10-21		Yes	Tim	Everyone else	N/A	Coach
2	2021-10-28		Yes	Tim	Everyone else	Claudia	Coach
3	2021-11-04		Yes	Tim	Everyone else	Max	Coach
4	2021-11-11		Yes	Tim	Everyone else	Jasper	Coach
5	2021-11-18		Yes	Tim	Everyone else	Tim	Coach
6	2021-11-25		Yes	Tim	Everyone else	Simon	Coach
7	2021-12-02	Mid-project relea	Yes	Tim	Everyone else	Hannes	Coach
8	2021-12-09			Tim	Everyone else	René	Coach
9	2021-12-16			Tim	Everyone else	Ronny	Coach
10	2022-01-13		Yes	Tim	Everyone else	Claudia	Coach
11	2022-01-20			Jasper	Everyone else	Max	Coach
12	2022-01-27			Tim	Everyone else	Jasper	Coach
13	2022-02-03		Yes	Max	Everyone else	Tim	Coach
14	2022-02-10	Demo day / final release		Tim	Everyone else	Simon	Coach
15	2022-02-17	Project retrospective due		Tim	Everyone else	Hannes	Coach

Product Vision	Project Mission
The Explainable Similarity Detector should give all developers who work with electronic components a noticeable offer simplification in everyday work. Through the use of machine learning and an easily understandable surface, the time-consuming search for suitable components should be faster, more convenient and clearer.	The mission of this project is to utilize the machine learning algorithm given by Siemens for the find functionally similar electronic components. This is supposed to be given on the basis of one or more Components are done with the help of filters.
The reason of existence of the envisioned product (beyond this project).	The mission of this particular project (in the context of the product vision).

Term	Definition
user	a developer who works with electronic components
(electronic) components	semiconductors, LEDs, etc.
Industry-Partner-User	Users on the part of the industrial partner who will use the software product
Industry-Partner-Software-Developer	Software developers on the part of the industrial partner who will work on the software product
Scheduled-for-Split	It is likely that this feature will have to be broken down into subtasks
SFS	Shorthand for Scheduled-for-Split
Dummy	A function that has not yet been fully implemented, but is used to test basic functionalities
Project-Developer	Project side software developer

#	Theme	Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-Down
1-4	Organisation, clearing questions with the Industry-Partner and familiarize with the material				/		/	33
		Allocation of roles, laying the foundations, setting up software and holding first industrial partner meetings (mainly non-code)						
				/		/		
5	Groundwork				11		8	25
		Create first Domain Model to work with (Frontend), testing requests and understanding/working with the ML-Code, data etc.						
			Create first Domain Model with most important entities in mendix	3		3		
			Get-Request (azure-Model) (Dummy)	8		5		
6	Dummy-Prototype (Part 1)				22		16	9
		Deliver first prototype to test basic interaction between frontend and backend and lay the foundation for the Basic-Prototype						
			create JSON-Format	3		5		
			Request function for data(Dummy)	5		0		
			Function for adding component(capacitor)(Dummy)	3		5		
			Create database-scheme(SQL)	3		3		
			Backend-API connection with the database (Dummy)	5		0		
			User feedback function for openAPI	3		3		



[illegible]

#	Theme	Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-Down
7	Dummy-Prototype (Part 2)				29		TBD	
		Finish all Dummy function and testing basic interaction for implementation of real functions						
			Backend-API (Dummy)	5		TBD		
			Function for adding component(resistor)(Dummy)	2		TBD		
			Host-Open-API-Specification (Swagger)	5		TBD		
			Backend-API connection with the database (Dummy)/Implementation of azure functions relying on database access (for capacitors)	5		TBD		
			Create userrole: admin	2		TBD		
			Request function for data (Dummy)	5		TBD		
			Implementation fo azure function for ML-model inference	5		TBD		
8	Basic-Version (Part 1)				TBD		TBD	
		Deliver a prototype that can already receive and process input						
			Implementation of the endpoints	TBD		TBD		
			Machine-Learning model connection	TBD		TBD		
			Host Mendix Docker container on azure	TBD		TBD		
			(restructuring / adapting) of data and mapping	TBD		TBD		
			Deserialize Return Message from ML-model Inference	TBD		TBD		
			Split endpoint for retraining and adding of new components	TBD		TBD		
			Creation of a validation error object for POST operations in OpenAPI and implementation	TBD		TBD		
			Registration for anonymous users	TBD		TBD		
			Create new users	TBD		TBD		
			Backend-API connection with the database (Dummy)/Implementation of azure functions relying on database access (for resistors)	TBD		TBD		
			restructuring in user feedback function frontend	TBD		TBD		
9	Basic-Version (Part 2)				TBD		TBD	
		Deliver a prototype that implements required functionality						
			Filter results	TBD		TBD		
			Feedback-Function	TBD		TBD		
			Search result counter	TBD		TBD		
10	Advanced-Version (Part 1)				TBD		TBD	
		deliver a prototype which already contains advanced(non-basic) functionalities						
			Tab system	TBD		TBD		
			Show data sheet	TBD		TBD		
			Refresh-Switch	TBD		TBD		

[illegible]

[illegible]

Sprint	Status	Source	Impediment	Resolution
1	Resolved	Industry partner	Fehlende Informationen zu Spezifikation und Technik	Warten auf User-Journey-Meeting
1	Resolved	Industry partner	Nicht die versprochenen Unterlagen geschickt	Unterlagen bekommen.
1	Resolved	Industry partner	User-Journey Meeting erst in zwei Wochen angesetzt.	Später Termin ist in Ordnung.
5	Resolved	Siemens	Frage bezüglich des Patents/Copyrights für ML-Modell	Mit Riehle gesprochen, ist für den Moment in Ordnung.
5	Resolved	SD	Azure-Experte hat erst "irgendwann" Zeit (sehr spät)	Termin steht für den 30.11
5	Resolved	Prof. Riehle	Privates Git-Repository vs. Benotung	Mit Riehle gesprochen, ist für den Moment in Ordnung.
5	Resolved	Siemens	Copyright Frage bezgl. des Mendix-Templates	Mit Riehle gesprochen, ist für den Moment in Ordnung.
5	In-work	Siemens (Emre)	ML-Modell läuft nicht entgegengesetzt der Ansage	
6	Unsolvable	Maria	Maria ist im Urlaub und nicht erreichbar	Erstmal kein Hinderniss
6	Resolved	Siemens	Ansprechpartner für ML-Modell nicht erreichbar.	Ansprechpartner Emre erreicht und in Kontakt
7	In-work	Siemens (Tejashri)	Noch keine Lizenz für Mendix von Siemens bekommen	
7	In-work	SD	Die Students-Credits für Azure reichen nicht mehr lange	

[illegible]

Context	Name	Version	License	Comment
1 Backend (Azure)	SQLAlchemy	1.4.27	MIT License	
2 Backend (Azure)	azure-functions	1.8.0	MIT License	
3 Backend (Azure)	click	8.0.3	BSD License	
4 Backend (Azure)	colorama	0.4.4	BSD License	
5 Backend (Azure)	greenlet	1.1.2	MIT License	
6 Backend (Azure)	mypy	0.91	MIT License	
7 Backend (Azure)	mypy-extensions	0.4.3	MIT License	
8 Backend (Azure)	pathspec	0.9.0	Mozilla Public License 2.0 (MPL 2.0)	
9 Backend (Azure)	platformdirs	2.4.0	MIT License	
10 Backend (Azure)	psycpg2-binary	2.9.2	GNU Library or Lesser General Public License (LGPL)	
11 Backend (Azure)	pydantic	1.8.2	MIT License	
12 Backend (Azure)	pyodbc	4.0.32	MIT License	
13 Backend (Azure)	regex	2021.11.10	Apache Software License	
14 Backend (Azure)	sqlalchemy-stubs	0.4	MIT License	
15 Backend (Azure)	toml	0.10.2	MIT License	
16 Backend (Azure)	tomli	1.2.2	MIT License	
17 Backend (Azure)	typing-extensions	4.0.0	Python Software Foundation License	
18 Backend (Development)	black	21.11b1	MIT License	
19 Backend (Machine Learning)	Markdown	3.3.6	BSD License	
20 Backend (Machine Learning)	Pillow	8.4.0	Historical Permission Notice and Disclaimer (HPND)	
21 Backend (Machine Learning)	Werkzeug	2.0.2	BSD License	
22 Backend (Machine Learning)	absl-py	1.0.0	Apache Software License	
23 Backend (Machine Learning)	certifi	2021.10.8	Mozilla Public License 2.0 (MPL 2.0)	
24 Backend (Machine Learning)	charset-normalizer	2.0.7	MIT License	
25 Backend (Machine Learning)	click	8.0.3	BSD License	
26 Backend (Machine Learning)	cycler	0.11.0	BSD License	
27 Backend (Machine Learning)	dataclasses	0.8	Apache Software License	
28 Backend (Machine Learning)	fasttext	0.9.2	MIT License	
29 Backend (Machine Learning)	gensim	4.1.2	LGPL-2.1-only	
30 Backend (Machine Learning)	grpcio	1.42.0	Apache Software License	
31 Backend (Machine Learning)	idna	3.3	BSD License	
32 Backend (Machine Learning)	importlib-metadata	4.8.2	Apache Software License	
33 Backend (Machine Learning)	joblib	1.1.0	BSD License	
34 Backend (Machine Learning)	kiwisolver	1.3.1	BSD License	
35 Backend (Machine Learning)	matplotlib	3.3.4	Python Software Foundation License	
36 Backend (Machine Learning)	mlxtend	0.19.0	BSD License	
37 Backend (Machine Learning)	nltk	3.6.5	Apache Software License	
38 Backend (Machine Learning)	numpy	1.19.0	BSD	
39 Backend (Machine Learning)	pandas	0.25.3	BSD	
40 Backend (Machine Learning)	protobuf	3.19.1	3-Clause BSD License	
41 Backend (Machine Learning)	pyarrow	6.0.1	Apache Software License	
42 Backend (Machine Learning)	pybind11	2.8.1	BSD License	
43 Backend (Machine Learning)	pyparsing	3.0.6	MIT License	
44 Backend (Machine Learning)	python-dateutil	2.8.2	Apache Software License; BSD License	

\	Context	Name	Version	License	Comment
45	Backend (Machine Learning)	pytz	2021.3	MIT License	
46	Backend (Machine Learning)	regex	2021.11.10	Apache Software License	
47	Backend (Machine Learning)	requests	2.26.0	Apache Software License	
48	Backend (Machine Learning)	sacremoses	0.0.46	MIT License	
49	Backend (Machine Learning)	scikit-learn	0.24.2	new BSD	
50	Backend (Machine Learning)	scipy	1.5.4	BSD License	
51	Backend (Machine Learning)	six	1.16.0	MIT License	
52	Backend (Machine Learning)	smart-open	5.2.1	MIT License	
53	Backend (Machine Learning)	stop-words	2018.7.23	BSD License	
54	Backend (Machine Learning)	tensorboard	2.0.0	Apache Software License	
55	Backend (Machine Learning)	threadpoolctl	3.0.0	BSD License	
56	Backend (Machine Learning)	torch	1.10.0	BSD License	
57	Backend (Machine Learning)	tqdm	4.62.3	MIT License; Mozilla Public License 2.0 (MPL 2.0)	
58	Backend (Machine Learning)	typing-extensions	4.0.0	Python Software Foundation License	
59	Backend (Machine Learning)	urllib3	1.26.7	MIT License	
60	Backend (Machine Learning)	zipp	3.6.0	MIT License	
61	Frontend	Mendix	9.6.1	Free License	

Type	Link / reference
User Documentation	https://github.com/Re-Krass/amos2021ws06-exp-similarity-detector/blob/main/Documentation/user/README.md
Build Documentation (Frontend)	https://github.com/Re-Krass/amos2021ws06-exp-similarity-detector/blob/main/Documentation/build/frontend/docker/README.md
Build Documentation (Backend)	https://github.com/Re-Krass/amos2021ws06-exp-similarity-detector/blob/main/Documentation/build/backend/azure/README.md
Software-Architecture	https://github.com/Re-Krass/amos2021ws06-exp-similarity-detector/blob/main/Deliverables/2021-11-30_sprint-06-software-architecture.pdf