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Project Data

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

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Project Team

Last Name	First Name	GitHub User Name	Email Address	Roles (preliminary)
	Max	hemnemne		Backend
	Tim	t99-i		Frontend + PO
	Ronny	georgir20		Frontend
	René	Re-Krass		Backend
	Claudia	TuCl		Backend
	Hannes	h4nn3s94		Frontend
	Jasper	jasperjulius		Backend
	Simon	B4rtware		Backend

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Team Contract

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 eigenene Kompetenzen zu überschätzen und sich rechtzeitg 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 wiedersprechen.
Communication norms	Für die externe Kommunikation sollte Telegram genutzt werden
	Zoom für weekly calls: (https://tu-berlin.zoom.us/j/68376196208?pwd=b0N6NUFXcnFxQXhaSVB6TXFwM25aQT09)
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 xx xXx}{

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Role Assignments

#	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 retrospec	tive due	Tim	Everyone else	Hannes	Coach

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Product Goal

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).

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Product Glossary

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

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Mid-Project Release Tracking

#	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				I		1	33
		Allocation of roles, laying the foundations, setting up software and holding first industrial partner meetings (mainly non-code)						
				I		I		
5	Groundwork				11		8	25
	Groundwork	Create first Domain Model to work with (Frontend), testing requests and understanding/working with the ML-Code, data etc.			••			20
			Create first Domain Model with most important entities in mendix	3		3		
			Get-Request (azure-Model) (Dummy)	8		5		
6	Dummy-Prototype (Part 1)	Deliver first prototype to test basic interaction between frontend and backend and lay the			22		16	9
		foundation for the Basic- Protoype	anada ICON Farmed	3		5		
			create JSON-Format 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		
		В	urn-Down-Chart					
		3	0					
		2	0					
		1						

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Mid-Project Release Tracking

				Est. Size	Est. Size	Real Size	Real Size	Burn-	
#	Theme	Goal	Feature Name	(Feature)	(Sprint)	(Feature)	(Sprint)	Down	

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Final Project Release Planning

# Theme	Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn- Down
7 Dummy-Prototype (Part 2)				8			
	Finish all Dummy function and testing basic interaction for implementation of real functions						
		Backend-API (Dummy)	5		TBD		
		Function for adding component(resistor)(Dummy)	TBD		TBD		
		Host-Open-API-Specification (Swagger)	TBD		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		
9 Basic-Version (Part 2)				TBD		TBD	
	Deliver a prototype that implements required functionality						
		Filter results	TBD		TBD		
		Feedback-Function	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		
1 Advanced-Version (Part 2)	deliver a prototype which already contains advanced(non-basic) functionalities			TBD		TBD	
		Filter based search	TBD		TBD		
		Allocation of results in classes	TBD		TBD		
2 Advanced-Version (Part 3)				TBD		TBD	
	deliver a prototype which already contains advanced(non-basic) functionalities						
		price and property comparison of similar components	TBD		TBD		
13 TBD							
	TBD						

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Final Project Release Planning

#	Theme	Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn- Down
			Maina Datan					
			Keine Daten					

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Planning Poker

Last Name	First Name	Value			
	Max		TUIVI	TUIVI	
	Tim		0!	0!	
	Ronny		O:	U:	
	René				
	Claudia		0	No size	
	Hannes		1	Trivial size	
	Jasper		2	Small size	
	Simon		3	Medium size	
			5	Large size	
			8	Very large size	
			13	Too large (size)	

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Impediments Backlog

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 bezügliche 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	

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Definition of Done

#	Feature Definition of Done	Sprint Release Definition of Done	Project Release Definition of Done
1	- Code has been reviewed by developer	- no bugs that affect the functionality	- Basic functionality and front end is ready for use
2	- Code has been reviewed by the responsible developer Team (Frontend/Backend)	- small bugs are documented for rectification	- User documentation is ready (subject to change)(used and checked by AT LEAST 3 off-project persons (Industry-Partner-User))
3	- individual acceptance criteria are met	- The user documentation is updated according to the changes	- Developer documentation is ready (subject to change) (used and checked by AT LEAST 3 off-project persons (Industry-Partner-Software-Developer)
4		- The developer documentation is updated according to the changes	
5		- (Optimal): 80-90% of the assigned tasks were completed successfully	
6		- (Minimum): At least 50% of all assigned tasks have been completed (discussion in the meeting)	
			Appendix: Subject-to-change
			Expect further information from the industry partner, how many people are available for this

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Bill of Materials

\ Context	Name	Version	License	Comment
1 Backend	Django	3.2.9	BSD License	
2 Backend	Markdown	3.3.4	BSD License	
3 Backend	Pillow	8.4.0	Historical Permission Notice and Disclaimer (HPND)	
4 Backend	Werkzeug	2.0.2	BSD License	
5 Backend	absl-py	0.15.0	Apache Software License	
6 Backend	asgiref	3.4.1	BSD License	
7 Backend	click	8.0.3	BSD License	
8 Backend	colorama	0.4.4	BSD License	
9 Backend	cycler	0.11.0	BSD License	
10 Backend	dataclasses	0.8	Apache Software License	
11 Backend	djangorestframework	3.12.4	BSD License	
12 Backend	gensim	4.1.2	LGPL-2.1-only	
13 Backend	grpcio	1.41.1	Apache Software License	
14 Backend	importlib-metadata	4.8.1	Apache Software License	
15 Backend	joblib	1.1.0	BSD License	
16 Backend	kiwisolver	1.3.1	BSD License	
17 Backend	matplotlib	3.3.4	Python Software Foundation License	
18 Backend	mlxtend	0.19.0	BSD License	
19 Backend	nltk	3.6.5	Apache Software License	
20 Backend	numpy	1.19.0	BSD	
21 Backend	pandas	0.25.3	BSD	
22 Backend	protobuf	3.19.1	3-Clause BSD License	
23 Backend	pyarrow	6.0.0	Apache Software License	
24 Backend	pyparsing	3.0.4	MIT License	
25 Backend	python-dateutil	2.8.2	Apache Software License; BSD License	
26 Backend	pytz	2021.3	MIT License	
27 Backend	regex		2 Apache Software License	
28 Backend	sacremoses	0.0.46	MIT License	
29 Backend	scikit-learn	0.24.2	new BSD	
30 Backend	scipy	1.5.4	BSD License	
31 Backend	six	1.16.0	MIT License	
				Requires: Python >=3.7; sklearn ist sehr alt und besitzt keine Lizenz. Um aber scikit-learn verwenden zu können, wird mindestens die Python
32 Backend	scikit-learn	1.0.1	OSI Approved (new BSD)	version 3.7 benötigt.
33 Backend	sklearn	0.0	UNKNOWN	
34 Backend	smart-open	5.2.1	MIT License	
35 Backend	sqlparse	0.4.2	BSD License	
36 Backend	stop-words		BSD License	
37 Backend	tensorboard	2.0.0	Apache Software License	
38 Backend	threadpoolctl	3.0.0	BSD License	
39 Backend	torch	1.10.0	BSD License	
40 Backend	tqdm	4.62.3	MIT License; Mozilla Public License 2.0 (MPL 2.0)	
41 Backend	typing-extensions	3.10.0.2	Python Software Foundation License	

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Bill of Materials

1	Context	Name	Version	License	Comment
42	2 Backend	zipp	3.6.0	MIT License	
43	Frontend	Mendix	9.6.1	Free License	

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Documentation

Туре	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