amos2024ws01-planning-document Project Data

Project Name	RTDIP Data Quality Checker
Online team meeting	https://fau.zoom-x.de/j/65297375649
Production system (if any)	
Test system (if any)	
GitHub repository	https://github.com/amosproj/amos2024ws01-rtdip-data-quality-checker
GitHub feature board	https://github.com/orgs/amosproj/projects/73/views/2
GitHub imp-squared backlog	https://github.com/orgs/amosproj/projects/74/views/1
Team T-shirt (white)	https://www.shirtinator.de/t-shirts/gestalten/t-shirt-bedrucken#/load/share/88a2f8c7-961f-4c63-a1bf-9461971dfdc0
Team T-shirt (black)	NA NA
Additional materials	
Team maling list	oss-amos-proj1@lists.fau.de

amos2024ws01-planning-document Project Team

Last Name	First Name	GitHub User Name	Email Address
Hoffmann	Dominik	dh1542	dominik.a.hoffmann@fau.de   dominik151099@outlook.de (github)
Katziuk	Avi	AviKatziuk	avi.katziuk@fau.de
B.	Timm	Timm638	timm638@gmail.com (For GitHub only)
Munz	Christian	chris-1187	c.munz@campus.tu-berlin.de (GitHub: christian.munz@posteo.de)
Tran	Minh Khue	kristen149	minh.khue.tran@fau.de
Baumgärtner	Lucca	luccalb	lucca.baumgaertner@fau.de
Moll	Leon	mollle	leonmariusmoll@gmail.com
Trost	Felipe	felipetrost	felipe.trost@gmail.com
Sanal	Mert	sanalmert	mert.sanal@campus.tu-berlin.de

amos2024ws01-planning-document Role Assignments

#	Meeting Day Product Owners	Software Developer	Release Manager	Scrum Master	Comment
1	2023-10-16 Lucca Baumgärtner	Everyone else		Avi Katziuk	
2	2023-10-23 Mert Sanal	Everyone else		Avi Katziuk	
3	2023-10-30 Lucca Baumgärtner	Everyone else	Timm	Avi Katziuk	
4	2023-11-06 Mert Sanal	Everyone else	Dominik	Avi Katziuk	
5	2023-11-13 Lucca Baumgärtner	Everyone else	Leon	Avi Katziuk	
6	2023-11-20 Mert Sanal	Everyone else	Christian	Avi Katziuk	
7	2023-11-27 Lucca Baumgärtner	Everyone else	Minh Khue	Avi Katziuk	Mid-term due
8	2023-12-04 Mert Sanal	Everyone else	Felipe	Avi Katziuk	
9	2023-12-11 Lucca Baumgärtner	Everyone else	Timm	Avi Katziuk	
10	2023-01-11 Mert Sanal	Everyone else	Dominik	Avi Katziuk	
11	2023-01-18 Lucca Baumgärtner	Everyone else	Leon	Avi Katziuk	
12	2023-01-25 Mert Sanal	Everyone else	Christian	Avi Katziuk	
13	2023-02-01 Lucca Baumgärtner	Everyone else	Minh Khue	Avi Katziuk	
14	2023-02-08 Mert Sanal	Everyone else	Felipe	Avi Katziuk	Demo day!
15	2023-02-15 Lucca Baumärtner	Everyone else	Timm	Avi Katziuk	Retrospective
Product	owners, software developers, and Scurm Ma	ster are set and ideally don't change	e over time; the critical part is the F	Release Manager role you need to	define here

amos2024ws01-planning-document Team Contract

Goals	Deliver high quality software components for RTDIP by having a successfull PR into the main project	
	Forefilling the requirments of our industry partner in a structured and non-stressful way, e.g. not pulling all-nighters	
	Have a great time and learn something in the process	
Meeting norms	Mandatory	
	Punctual and reliable schedule (meetings at the same time every week so we can schedule our personal life and stuff)	
	Inform the team on the previous day if you can't attend	
	Try to be on time, don't wait for late joiners unless their input is critical	
Working norms	Try to find uniform decisions by discussing and prioritizing the IPs whishes	
9	Don't expect last minute all nighters from your team members	
	Always get at least one review by another SD for your PR	
	Review (merge or postpone) open PRs by Tuesday 12am to give the RM enough time	
	Comply with code standards that we decide on as a team	
	Would be good to plan ahead when everyone can put the work in so we can coordinate and communicate in a productive way	
	Not committing non compiling code	
	Use feature branches	
	Scheduling their working times is up to the individual	
Coordination norms	our country area working arrests to up to the individual	
Coordination norms	Developing a good and washing release significant from requirement to margo in master.	
	Developing a good and working release pipeline. From requirment to merge in master	
	Team meetings are led by the POs	
	Equal distribution of story points, considering last week's differences	
	Tasks can be picked freely by team members, if a task isn't assigned the POs can decide	
	If one has technical problems/bugs during their tasks, other developers should support via online platforms, TeamViewer or conduct peer review	
Communication norms	Slack for messaging, Zoom for Meetings/Pair Porgramming	
	Illness: Depending on the privacy preference of the person either slack channel or SM	
	Respond to direct mentions within one workday, have an emergency thread in slack	
	Have a FAQ in the documentation that is frequently updated	
Consideration norms		
	Devs, Scrum Master and POs should be equal in the hierachry. If someone has a concern one should address it	
Cont. improvement norms	Tracking progress in github project boards via achieved story points	
Rewards	Praise team members in Slack if you think they did a great job on something	
Sanctions	Create a Meme for the group and post it to Slack or someplace where we can collect them?	
Signatures		
0 11 1		
Scrum Master	Avi Katziuk	
Product owner	Lucca Baumgärtner	
Product owner	Mert Sanal	
Software developer		
Software developer	Christian Munz	
Software developer	Domink Hoffmann	
Software developer	Felipe Trost	
Software developer	Leon Moll	
Software developer	Minh K. Tran	
	Continuous Improvement Nor	lo everyone, the link to join the Zoom meeting can be found

amos2024ws01-planning-document Product Goal

Product Vision Project	t Mission
The Real-Time Data Ingestion Platform (RTDIP) by Shell is an open-source solution aimed at efficiently gathering and processing large-scale time-series data, such as information from millions of industrial sensors. It emphasizes scalability, innovation, and collaboration, with potential applications across various industries to enhance	port the advancement of the Real-Time Data Ingestion Platform (RTDIP) by uting to the development of innovative, open-source components focused on g data quality. The mission includes creating tools to detect missing data, duplicates, and irregularities in real-time data streams, while aligning with s development guidelines to promote robust, scalable, and collaborative

amos2024ws01-planning-document Product Glossary

Term	Definition

amos2024ws01-planning-document Sprint Goals

Sprint #	Sprint goal
1	None
2	None
3	None
4	Optional
5	Build a product demo for the mid-project & final release
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	

amos2024ws01-planning-document Mid-Project Release plan

Sprint	Goal	Feature Name	Est. Size	Est. Remaining	Real Size	Real Remaining
•						
Release	e					
Total			65	65		
Sprints						
4	•	Elitable discontinue da		05	4.4	0.5
1		Finished in Sprint No. #1	11		11	
2		Finished in Sprint No. #2	20		27	
3		Finished in Sprint No. #3	21		17	27 10
5		Finished in Sprint No. #4	13	13		10
Feature		Finished in Sprint No. #5				
i eature	;3					
1	Issues	Finished in Sprint No. #1				
		Duplicate Detection	8		8	
		Fix Broken Virtual Environment	3		3	
2	Issues	Finished in Sprint No. #2				
		Create Software Bill of Materials	1		1	
		Create Software Architecture Diagram	3		5	
		Anomaly Detection	3		8	
		Explore the Test Data and Brainstorm RTDIP Component Ideas	5		5	
		Identify Missing Data	8		8	
3	Issues	Finished in Sprint No. #3				
		Create a Test Pipeline to Run During Release	5		1	
		Clean Data Based on Interval/Pattern	8		8	
		Normalization of Data	8		8	
4	Issues	Finished in Sprint No. #4				
		Time Series Prediction Using ARIMA	13		8	

amos2024ws01-planning-document Final Project Release plan

Sprint	Goal	Feature Name	Est. Size	Est. Remaining	Real Size	Real Remaining
Release	e					
110100.0						
Total			0	0		
Sprints	i					
1			0	0	0	0
2			0	0	0	0
3			0	0	0	0
				0		0
Feature	es					
_						
1						
2						
3						
_						

amos2024ws01-planning-document Definition of Done

#	Feature Definition of Done	Sprint Release Definition of Done	Project Release Definition of Done
1	Test cases have been created and are running successfully	Change log has been updated	Approval from IP
2	Documentation for the new component was added	Test suite running successfully	Successful merge into original RTDIP repository
3	Github Actions are running without errors	Bill of materials up-to-date	

Type	Link / reference

amos2024ws01-planning-document Bill of Materials

	Context	Name	Version Range	License	Comment
	1 conda-forge	databricks-sql-connector	>=3.1.0,<4.0.0	Apache 2.0	SQL connector for Databricks
3 4	2 conda-forge	azure-identity	>=1.12.0,<2.0.0	MIT	Identity management for Azure
	3 pip	pandas	>=1.5.2,<2.2.0	BSD 3-Clause	Data manipulation library
	4 conda-forge	jinja2	>=3.1.4,<4.0.0	BSD 3-Clause	Template engine for Python
	5 conda-forge	importlib_metadata	>=7.0.0	MIT	Metadata for Python packages
	6 conda-forge	semver	>=3.0.0,<4.0.0	MIT	Semantic versioning library
	7 conda-forge	xlrd	>=2.0.1,<3.0.0	MIT	Library for reading Excel files
	8 conda-forge	grpcio	>=1.48.1	Apache 2.0	gRPC library for Python
	9 conda-forge	grpcio-status	>=1.48.1	Apache 2.0	gRPC status library
	10 conda-forge	googleapis-common-protos	>=1.56.4	Apache 2.0	Common protobufs for Google APIs
	11 pip	langchain	>=0.2.0,<0.3.0	MIT	Framework for LLMs
	12 pip	langchain-community	>=0.2.0,<0.3.0	MIT	Community contributions to LangChain
	13 conda-forge	openai	>=1.13.3,<2.0.0	MIT	OpenAl API client
	14 conda-forge	pydantic	>=2.6.0,<3.0.0	MIT	Data validation library
	15 conda-forge	pyspark	>=3.3.0,<3.6.0	Apache 2.0	Spark library for Python
	16 conda-forge	delta-spark	>=2.2.0,<3.3.0	Apache 2.0	Delta Lake integration with Spark
	17 pip	dependency-injector	>=4.41.0,<5.0.0	MIT	Dependency injection framework
	18 pip	databricks-sdk	>=0.20.0,<1.0.0	Apache 2.0	SDK for Databricks services
	19 conda-forge	azure-storage-file-datalake	>=12.12.0,<13.0.0	MIT	Azure Data Lake Storage client
	20 conda-forge	azure-mgmt-storage	>=21.0.0	MIT	Azure Storage management client
	21 pip	azure-mgmt-eventgrid	>=10.2.0	MIT	Azure Event Grid management client
	22 conda-forge	boto3	>=1.28.2,<2.0.0	Apache 2.0	AWS SDK for Python
	23 pip	hvac	>=1.1.1	MPL 2.0	HashiCorp Vault client
	24 conda-forge	azure-keyvault-secrets	>=4.7.0,<5.0.0	MIT	Azure Key Vault secrets management
	25 pip	web3	>=6.18.0,<7.0.0	MIT	Ethereum blockchain library
	26 conda-forge	polars[deltalake]	>=0.18.8,<1.0.0	MIT	DataFrame library with Delta Lake support
	27 conda-forge	delta-sharing	>=1.0.0,<1.1.0	Apache 2.0	Delta Sharing library
	28 conda-forge	xarray	>=2023.1.0,<2023.8.0	BSD 3-Clause	N-dimensional array library
	29 conda-forge	ecmwf-api-client	>=1.6.3,<2.0.0	Apache 2.0	ECMWF API client
	30 conda-forge	netCDF4	>=1.6.4,<2.0.0	BSD 3-Clause	NetCDF file reading/writing
	31 conda-forge	joblib	>=1.3.2,<2.0.0	BSD 3-Clause	Lightweight pipelining library
	32 pip	sqlparams	>=5.1.0,<6.0.0	MIT	SQL query parameters library
	33 pip	entsoe-py	>=0.5.10,<1.0.0	MIT	ENTSOE API client
	34 conda-forge	pytest	==7.4.0	MIT	Testing framework
	35 conda-forge	pytest-mock	==3.11.1	MIT	Mocking for pytest
	36 conda-forge	pytest-cov	==4.1.0	MIT	Coverage reporting for pytest
	37 conda-forge	pylint	==2.17.4	GPL 2.0	Static code analysis for Python
	38 conda-forge	pip	>=23.1.2	MIT	Python package installer
	39 conda-forge	turbodbc	==4.11.0	MIT	ODBC interface for Python
	40 conda-forge	numpy	>=1.23.4,<2.0.0	BSD 3-Clause	Numerical computing library
	41 conda-forge	oauthlib	>=3.2.2,<4.0.0	MIT	OAuth library
	42 conda-forge	cryptography	>=38.0.3	MIT	Cryptography library

amos2024ws01-planning-document Bill of Materials

#	Context	Name	Version Range	License	Comment
43	conda-forge	fastapi	>=0.110.0,<1.0.0	MIT	Fast web framework
44	conda-forge	httpx	>=0.24.1,<1.0.0	MIT	HTTP client for Python
45	conda-forge	openjdk	>=11.0.15,<12.0.0	N/A	OpenJDK Java runtime
46	conda-forge	mkdocs-material	==9.5.20	MIT	Material theme for MkDocs
47	conda-forge	mkdocs-material-extensions	==1.3.1	MIT	Extensions for MkDocs
48	conda-forge	mkdocstrings	==0.25.0	MIT	Documentation generation
49	conda-forge	mkdocstrings-python	==1.10.8	MIT	Python support for mkdocstrings
50	conda-forge	mkdocs-macros-plugin	==1.0.1	MIT	Macros for MkDocs
51	conda-forge	mkdocs-autorefs	>=1.0.0,<1.1.0	MIT	Automatic references for MkDocs
52	conda-forge	pygments	==2.16.1	BSD 2-Clause	Syntax highlighting library
53	conda-forge	pymdown-extensions	==10.8.1	MIT	Extensions for Markdown
54	conda-forge	pygithub	>=1.59.0	MIT	GitHub API client
55	conda-forge	pyjwt	>=2.8.0,<3.0.0	MIT	JSON Web
56	conda-forge	conda	>=24.9.2	BSD 3-Clause	Package installer

amos2024ws01-planning-document Planning Poker

Last Name	First Name	Value			
Hoffmann	Dominik	5			
#REF!	#REF!	5	5.00	OK	
Katziuk	Avi			• • • • • • • • • • • • • • • • • • • •	
В.	Timm				
Munz	Christian		0	No size	
Tran	Minh Khue		1	Trivial size	
Baumgärtner	Lucca		2	Small size	
Moll	Leon		3	Medium size	
Trost	Felipe		5	Large size	
Sanal	Mert		8	Very large size	
			13	Too large (size)	
How to play planning poker					
Everyone type their number in	ito their value field, don't hit return yet				
2. Someone, perhaps a product	owner, count down 3 2 1				
3. Then, everyone hit return to s	ubmit their value				