

<b>Project Name</b>	NFT Playbook
<b>Online team meeting</b>	<a href="https://fau.zoom.us/j/3837513668">https://fau.zoom.us/j/3837513668</a>
<b>Production system (if any)</b>	...
<b>Test system (if any)</b>	...
<b>Happines Index</b>	<a href="https://happy-amos.appspot.com/Project?project=6309985969504256&amp;course=4791918638661632">https://happy-amos.appspot.com/Project?project=6309985969504256&amp;course=4791918638661632</a>
<b>GitHub repository</b>	<a href="https://github.com/amosproj/amos2022ss07-nft-playbook">https://github.com/amosproj/amos2022ss07-nft-playbook</a>
<b>GitHub kanban board (project)</b>	<a href="https://github.com/amosproj/amos2022ss07-nft-playbook/projects">https://github.com/amosproj/amos2022ss07-nft-playbook/projects</a>
<b>GitHub Slides</b>	<a href="https://github.com/dirkriehle/amos-course/tree/main/Generated/Lecture%20slides">https://github.com/dirkriehle/amos-course/tree/main/Generated/Lecture%20slides</a>
<b>Team T-shirt (white)</b>	<a href="https://www.shirtinator.de/loadBasket/_3v8qHAfTpV">https://www.shirtinator.de/loadBasket/_3v8qHAfTpV</a>
<b>Team T-shirt (black)</b>	-
<b>Additional materials</b>	...
<b>Google Drive Link</b>	<a href="https://drive.google.com/drive/folders/15LVL6MDP8iO_iAu4pZdy2X0DyU4kXmWl">https://drive.google.com/drive/folders/15LVL6MDP8iO_iAu4pZdy2X0DyU4kXmWl</a>
<b>Communication Channel</b>	<a href="https://mm.phildree.de/amos-dev">https://mm.phildree.de/amos-dev</a>
<b>Homework File</b>	<a href="https://docs.google.com/document/d/1Lfi9pyeh-xWk1wJCQhiwSFgJlI6zEdHNS6-yTb9BWYw/edit#">https://docs.google.com/document/d/1Lfi9pyeh-xWk1wJCQhiwSFgJlI6zEdHNS6-yTb9BWYw/edit#</a>
<b>Mailverteiler</b>	amos-proj7@group.riehle.org

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<b>Goals</b>	Involve every teammember to unlock its best potential
	Be helpful and respectful to each other
	Achieve customers satisfaction by providing a solution which covers all requirements
<b>Meeting norms</b>	Nobody is late for a meeting and values the others limited amount of time
	Every team member focuses on the customers satisfaction, not on technical details
	Everyone comes prepared to the meetings
<b>Working norms</b>	Everone is 100% motivated, 100% committed to the team and gives 100% the best to reach the overall project goal
	Everyone works an equally amount (especiall SD). If someone has too less to do, (s)he has to ask actively for involvement
	We support each other
<b>Coordination norms</b>	Every task is assigned to exactly one person. If the person needs support, (s)he asks actively for it
	Every Taskowner bears the responsibilty, to deliver results until the committed due-date
<b>Communication norms</b>	Every team member checks all message channels at least one time per day in working day and reponses if necessary
	Respect everyone's opinion
	Response at least on the next day
<b>Consideration norms</b>	All product feature decisions are made from the Product Owner
	The team votes for a final decision if the whole projects gets impacted, Disagreements has to be discussed immediatly
<b>Cont. improvement norms</b>	Quality concerns have to be communicated immediatly
	Team spirit concerns have to be communicated immediatly, the Scrum Master has the responsibilty to solve them asap
<b>Rewards</b>	We honor every sprint release
	We drink some beer in periodic physical team building events
<b>Sanctions</b>	Every violation of the team contract has to be communicated immediatly
	The team votes for a sanction TBD
<b>Signed by</b>	Dikov
	Dreesens
	Schilling

	Wolfrum
	Al-Sheikh
	Rotsching
	Schwarzmann
	Kurz
	Schlinger

#	Meeting Day	Uni	Comment	Product Owner	Software Developer	Release Manager	Scrum Master
1	2022-04-27			Noah Kurz, Lukas Wolfrum	Everyone else	-	Hristo Dikov
2	2022-05-04			Noah Kurz, Lukas Wolfrum	Everyone else	Johannes Schilling	Hristo Dikov
3	2022-05-11			Noah Kurz, Lukas Wolfrum	Everyone else	Sebastian Schwarzmann	Hristo Dikov
4	2022-05-18			Noah Kurz, Lukas Wolfrum	Everyone else	Tawfeek Al-Sheikh	Hristo Dikov
5	2022-05-25			Noah Kurz, Lukas Wolfrum	Everyone else	Rotsching Lukas	Hristo Dikov
6	2022-06-01			Noah Kurz, Lukas Wolfrum	Everyone else	Philipp Dreesens	Hristo Dikov
7	2022-06-08		Mid-term due	Noah Kurz, Lukas Wolfrum	Everyone else	Johanna Schlinger	Hristo Dikov
8	2022-06-15			Noah Kurz, Lukas Wolfrum	Everyone else	Johannes Schilling	Hristo Dikov
9	2022-06-22			Noah Kurz, Lukas Wolfrum	Everyone else	Sebastian Schwarzmann	Hristo Dikov
10	2022-06-29			Noah Kurz, Lukas Wolfrum	Everyone else	Tawfeek Al-Sheikh	Hristo Dikov
11	2022-07-06			Noah Kurz, Lukas Wolfrum	Everyone else	Rotsching Lukas	Hristo Dikov
12	2022-07-13			Noah Kurz, Lukas Wolfrum	Everyone else	Philipp Dreesens	Hristo Dikov
13	2022-07-20			Noah Kurz, Lukas Wolfrum	Everyone else	Johanna Schlinger	Hristo Dikov
14	2022-07-27		Demo day!	Noah Kurz, Lukas Wolfrum	Everyone else	Johannes Schilling	Hristo Dikov
15	2022-08-03		Retrospective	Noah Kurz, Lukas Wolfrum	Everyone else	Sebastian Schwarzmann	Hristo Dikov

### Product Vision

We believe that NFTs have a great potential for companies, artists and private persons. Nevertheless, NFTs are currently either seen as nerdy gadget or rocket science.

With this product, we want to change that. We want to demystify NFTs by enabling enthusiast to create NFTs with the least possible effort to focus on their particular use case, not having to think about the NFT creation process itself. Through this, we reach increasing acceptance and distribution of the technology.

In the end we want to make the world a tiny bit better by for example ensuring digital property rights, enabling identification in a decentralized manner without being dependend on an administering instance.

### Project Mission

The mission of this project is to create a CLI which enables users to create NFTs on the blockchains Polygon, Flow and Solana.

Two major use cases will be supported.

Firstly, for showcasing how easy NFTs can be created, the CLI has a manual input option where the user can select the blockchain and edit features of the NFT like name and a picture. After that the NFT can be created with a simple command.

Secondly, NFTs can be mass produced to include their functionalities in projects. For this, mass deployment can be achieved by defining the features of each NFT individually in a JSON file. The JSON is then read by the CLI and the NFTs are created.



#	Theme	Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-Down
1	Organizational Project Setup	Get to Know Each Other and the Tasks						80
			Sum					
2	Technical Project Setup	Create Setup for Devops & CLI						
			#1 Setup CLI Basic Architecture	8		3		77
			#3 Mint NFT on Ether Based Chain	8		8		69
			#11 Create Devops Setup	8		5		64
			#7 Setup CLI	3		3		61
			#9 CLI Greets User	1		1		60
			Sum		28		20	
3	Frontend & Backend Architecture and Functionality	Create a Backend that can Interact with the CLI						
			#20 NFT Settings CLI	3				60
			#27 Refactoring Backend	8		8		52
			#16 Homescreen for CLI	1		1		51
			#10 Help Function CLI	1		1		50
			#17 Blockchain Selection CLI	2		2		48
			Sum		15		12	
4	Frontend & Backend Connection	Extend the Functionality of the Frontend with the Backend						
			#31 Research Pic to Hash Conversion	3				48
			#41 Interface for Backend Frontend Communication	5		5		43
			#39 Solidity Contract for NFTs	3		3		40
			#21 Create NFT Function CLI	1		2		38
			#20 NFT Settings CLI	1		1		37
			#40 Connections to Frontend for NFT Information	3		3		34
			Sum		16		14	
5	Feature Refinement and Wallet Connect	Add the Possibility to Connect with a Wallet and Refine Existing Minting Features						
			#49 Select Wallet Feature CLI	2				34
			#45 Handling Sensitive Data	1		1		33
			#30 Logical Structure for Wallet Integragtion	5		3		30
			#31 Research Pic to Hash Conversion	3		3		27
			#29 Research "Add Wallet Feature"	3		3		24
			#50 "Add Wallet Feature" in CLI	1		1		23
			Sum		15		11	
6	Picture Hashing and Refinement for Mid-Project Release	Add the Possibility to Create a Hash from a Picture and Polish Existing Features for Release						
			#62 Submit Deliverables Sprint-06	8		8		15
			#67 Connect Middleware to Front- and Backend	3		8		7
			#32 Integrate Piniata as IPFS Service	3		2		5
			#33 Gas fee prediction	3		3		2
			#51 Update CLI Texts	1		2		0
			Sum		18		23	

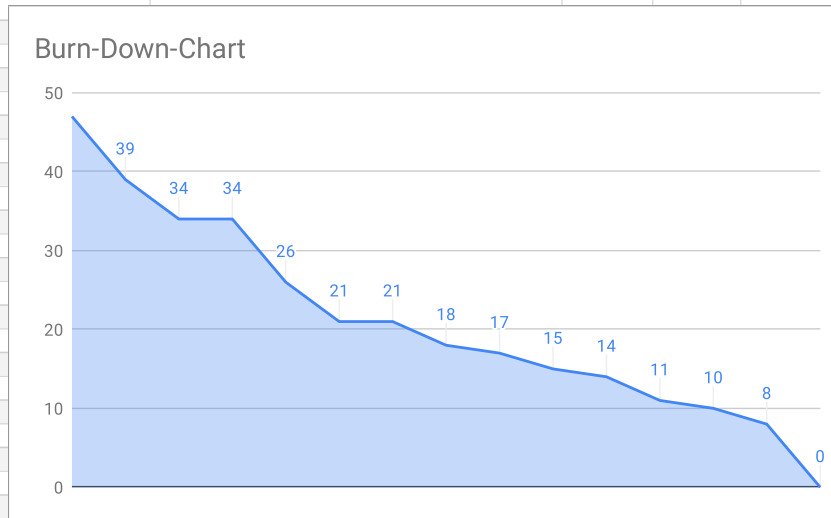
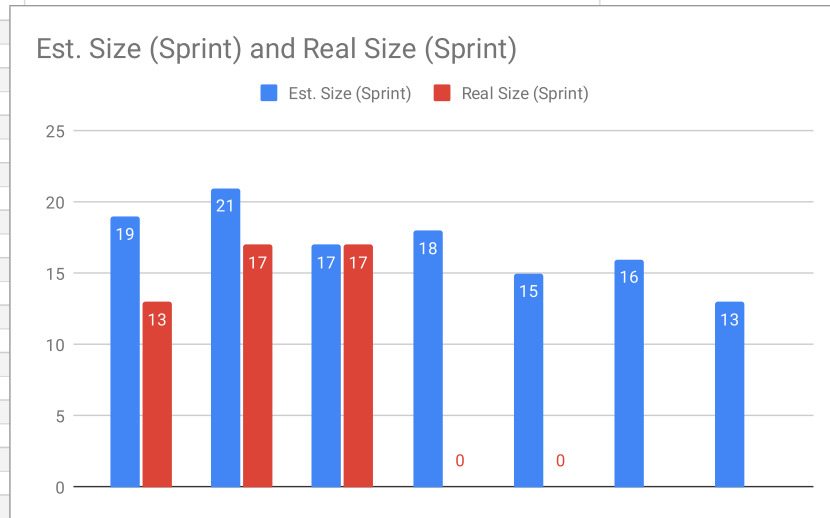




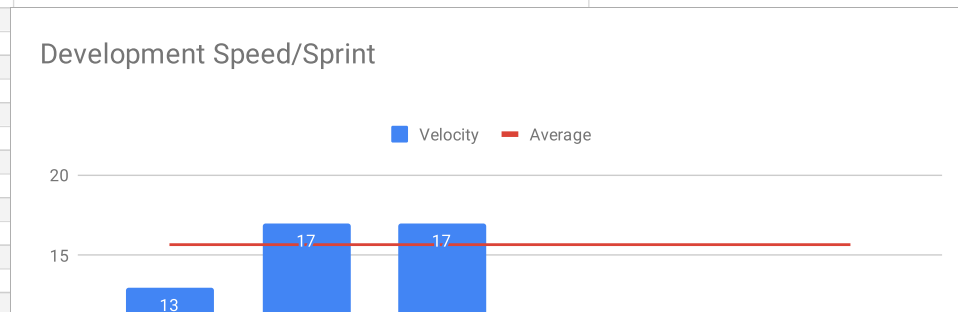
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#	Theme	Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-Down
								47
7	Add Flow Blockchain & Exception Handling	Add the Option to Mint on the Flow Blockchain, also Exception Handling is a necessary refactoring						
			#4 Research about minting on Flow Blockchain	3				47
			#44 Flow Blockchain Fuction can be called succesfully from CLI	8		8		39
			#66 Exception Handling Middleware/Backend	8		5		34
			Sum		19		13	
8	Connect Wallet & Add Solana	Add the Connect Wallet Option, Implement a log file for the user, Add the Solana Blockchain to the Backend						
			#72 Wallet integration Middleware	5		0		34
			#83 Solana Implementation Backend	8		8		26
			#86 Implement log file	3		5		21
			#59 Customizable Ethereum Network Parameters	2		0		21
			#79 Store Pinata password in dotenv	2		3		18
			#81 Show Success message when Pinata Upload is succesful	1		1		17
			Sum		21		17	
9	Further Solana Integration	Take further Solana Integration steps, further effort into wallet integration						
			#101 Minting Bug Fix	1		2		15
			#100 Switch Ethereum Minting from Ganach to Devnet	1		1		14
			#99 Implement Solana in Middleware	3		3		11
			#88 Implement Solana Minting Frontend	2		1		10
			#59 Customizable ETH Network parameter	2		2		8
			#72 Wallet integration Middleware	8		8		0
			Sum		17		17	
10	Further Solana Integration	Various improvements on diverse program modules						
			#117 Research Solana gas Fee Prediction	2				
			#115 Wallet integration Middleware	8				
			#36 CLI takes input file for Bulk NFT minting	5				
			#119 Strict mode for frontend and middleware	2				
			#102 log file extension	1				
			Sum		18		0	
11	Add Custom Blockchain	Last run on flow blockchain						
			#123 Refactoring Bulk Minting	3				
			#107 Flow Issue Documentation	2				
			#124 Wallet Integration Documentation	5				
			#116 Gas Fee Prediction Solana	5				
			#125 Gas fee prediction in Euro	3				
			Sum		15		0	
12	Refactoring and Documentation	Provide Extensive Documentation and Neat Code Towards the End of the Project						
			Write User Manual and Technical Documentation	8				
			Refactor the code	8				
			Sum		16			

#	Theme	Goal	Feature Name	Est. Size (Feature)	Est. Size (Sprint)	Real Size (Feature)	Real Size (Sprint)	Burn-Down
13	Refinement for Final Project Release	Make Sure that Everything is Ready for the Final Presentation						
			Extensive Feature Testing	8				
			Prepatation for Presentation	5				
			Sum		13			



	Sprint	Velocity	Average						
	7	13	16						
	8	17	16						
	9	17	16						
	10		16						
	11		16						
	12		16						
	13		16						



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\	Context	Name	Version	License	Comment
		@nrwl/cli	14.01.02	MIT	taskexexutor for build system
		@nrwl/eslint-plugin-nx	14.01.02	MIT	linter
		@nrwl/jest	14.01.02	MIT	testing
		@nrwl/js	14.01.02	MIT	java script-Adaption for mono-Repo
		@nrwl/linter	14.01.02	MIT	linter-Adaption for mono-Repo
		@nrwl/node	14.01.02	MIT	node-Adaption for mono-Repo
		@nrwl/workspace	14.01.02	MIT	mono-Repo
		@types/jest	27.04.01	MIT	testing
		@types/node	16.11.07	MIT	NodeJS Framework for Java Script
		@types/inquirer	08.02.01	MIT	interactive command line.
		@typescript-eslint/eslint-plugin	05.18.0	MIT	linter
		@typescript-eslint/parser	05.18.0	MIT	linter
		eslint	08.12.00	MIT	linter
		eslint-config-prettier	08.01.00	MIT	linter
		eslint-plugin-prettier	04.0.0	MIT	linter
		jest	27.05.01	MIT	testing
		nx	14.01.02	MIT	build system
		prettier	02.05.01	MIT	linter
		ts-jest	27.01.04	MIT	typescript for testing
		ts-node	09.01.01	MIT	typescript for node
		typescript	04.06.02	MIT	typescript for java script
		dotenv	16.00.01	BSD-2-Clause	module that loads env. variables from a .env
		chalk	04.01.02	MIT	terminal string styling
		@pinata/sdk	^1.1.25	MIT	API for pinata network
		@solana/solidity	^0.0.20	MIT	API for Ethereum Solidity Contracts
		"@solana/spl-token":	"^0.2.0",	MIT	API for Solana Contract
		"@solana/web3.js":	"^1.44.0",	MIT	API for Solana
		"axios":	"^0.27.2",	MIT	API for HTTP Requests
		"ethers":	"^5.6.5",	MIT	API for Ethereum
		"inquirer":	"^8.2.4",	MIT	CLI API
		"node-fetch":	"^2.6.1",	MIT	Fetch API for node.js
		"solc":	"0.8.14-fixed",	MIT	API for Ethereum Solidity Contracts Compiler
		"tslib":	"^2.3.0"	MIT	Runtime library for ts helper functions
		@metaplex-foundation/js	^0.11.5	MIT	API for Solana NFT System



Last Name	First Name	Value				
Dikov	Hristo					
Dreesens	Philipp	1337		223.67	NOK	
Schilling	Johannes	1				
Wolfrum	Lukas					
Al-Sheikh	Tawfeek	1		0	No size	
Rotsching	Lukas	1		1	Trivial size	
Schwarzmann	Sebastian	1		2	Small size	
Kurz	Noah			3	Medium size	
Schlinger	Johanna	1		5	Large size	
				8	Very large size	
				13	Too large (size)	
Source:	<a href="https://t2informatik.de/wissen-kompakt/planning-poker/">https://t2informatik.de/wissen-kompakt/planning-poker/</a>					