Minerva™

Derived from the Greek Mythology.
Minerva: Goddess of Wisdom, act, schools, justice and commerce

Abstract

Minerva, software named on Greek Goddess of wisdom, schools and commerce. Minerva focuses on creating and maintaining trust between it's users online by signing Agreements/ Contracts between them. It allows advancement in the administration of goal oriented communities, create opportunities for both institutions/business and students to grow under decentralised system with enhanced and trusted interactions guaranteeing at most security with the use of Blockchain Technology.

Minerva is an educational purpose software where the involvement of each and every person is glorified. It magnifies on the fact that utmost involvement and actions leads to right knowledge and experience. Minerva has been specially prepared to provide a platform for students where they can showcase their projects and can also specialise in it without difficulty using Minerva Explore.
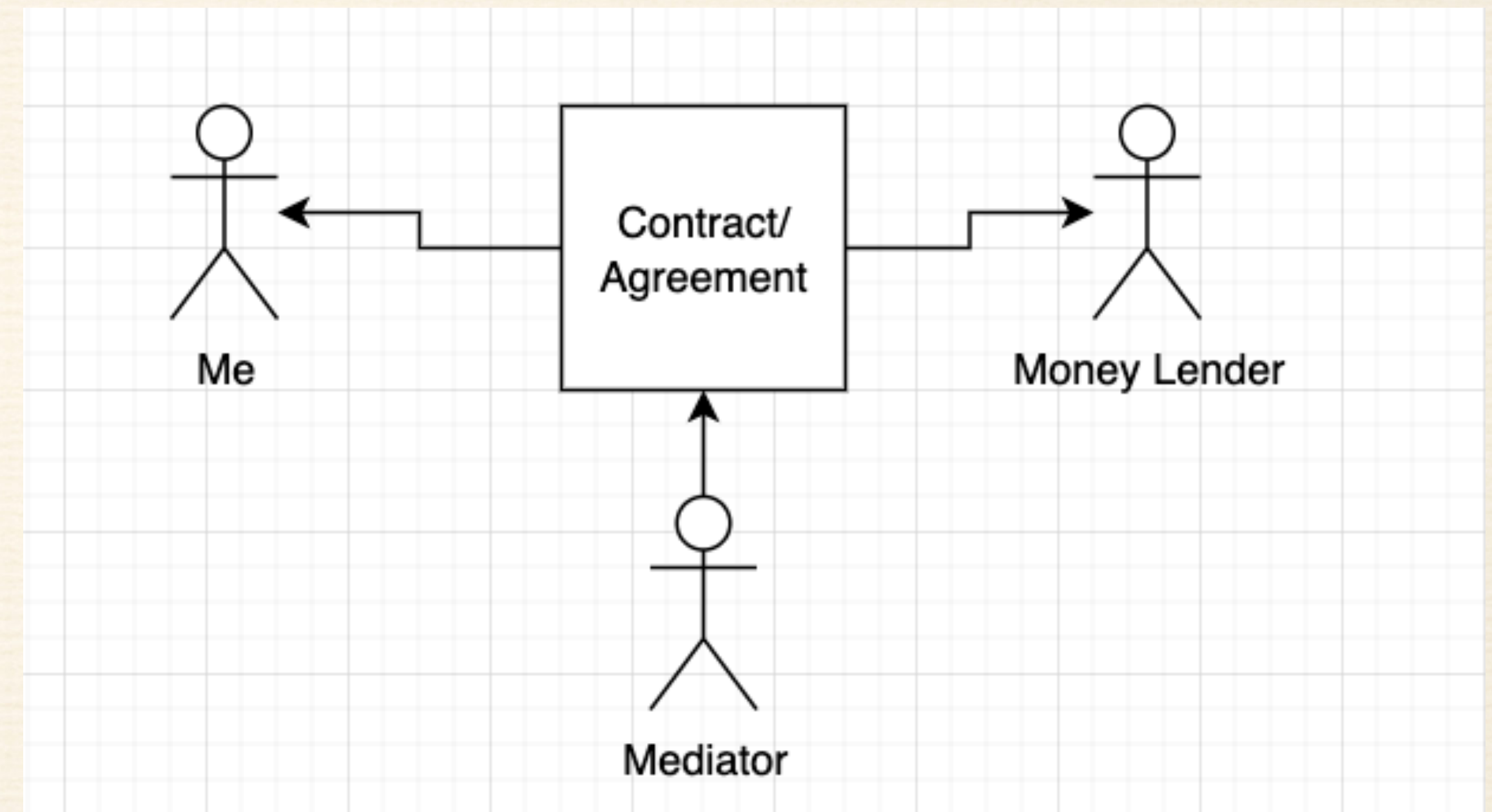
Discussing the problems

‣ **Gathering Team**: Finding like-minded People in real-life capable of being a team can be difficult.

‣ **Trusting Difficulties**: Entrusting People with your time, mind, money and energy on the internet is nearly impossible.

‣ **Tampering**: Centralised body is capable of tampering with your belongings.
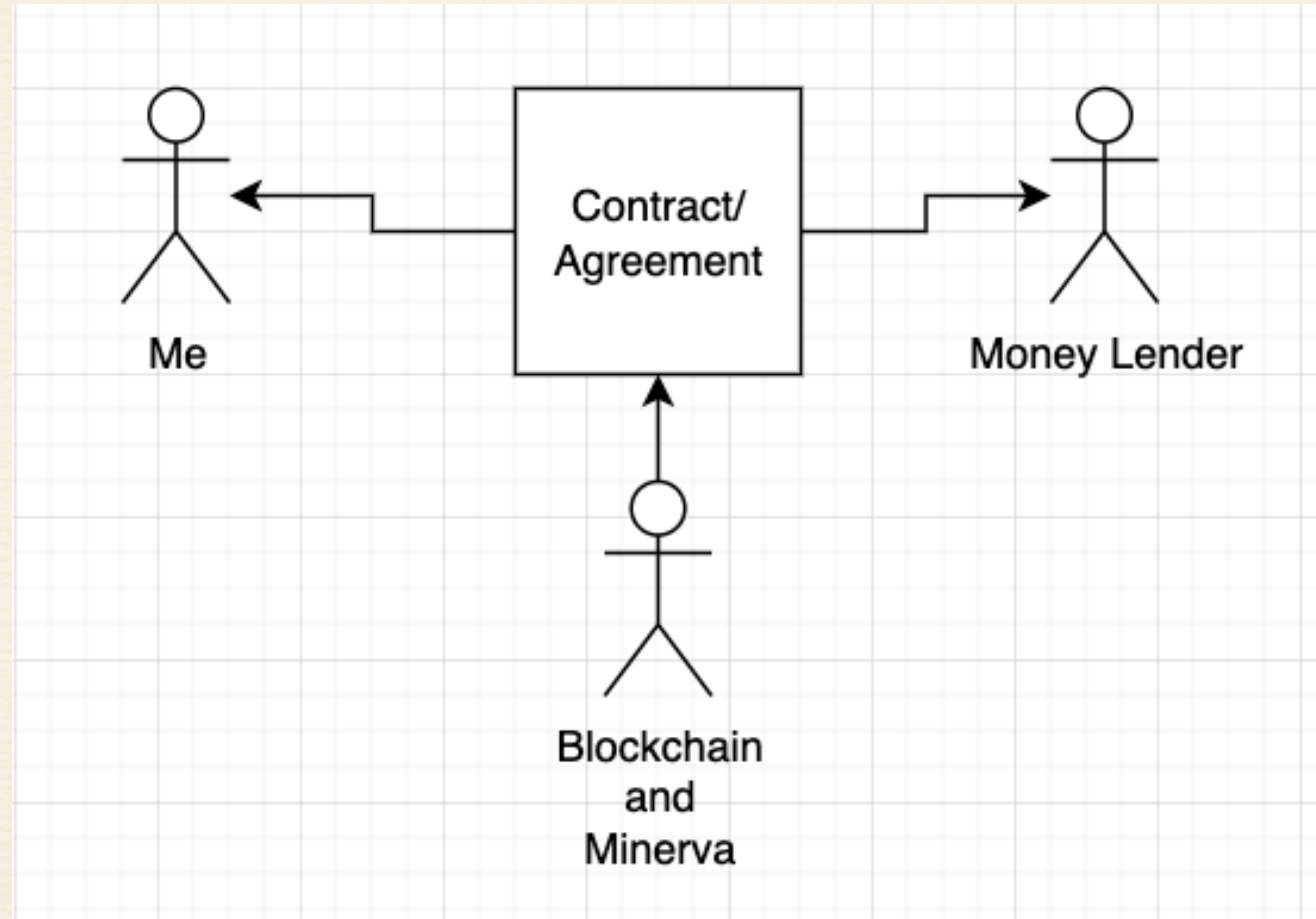
Solution To The Problems

1. Ease connecting to people

2. Mediating people on common grounds

Solution To The Problems

3. Decentralised Behaviour

Stakeholders (Dashboard)

▸ **Client / Owner**

Highest position in the company that purchases the software. The Client uses the Admin Panel / Dashboard to get insights of Finance and any other reports they require.

▸ **Administrator**

System Administrator (hereafter will be called as 'Admin') Controls the entire Software in the project in regard to access, monitoring the user's power's within the team working in the project based on their "Job Role". Admin also control's, regulates and monitors other user's viz. Students (Professionals), Entrepreneurs, Teachers, Guest Users etc. Admin will be assisted by Junior System Admin, Admin with Database Proficiency and Network Administration.

▸ **Moderator**

Moderator role is of immense importance to the project as he/she will be the first person to review the software developed for ensuring the efficacy of the program. Taking into account the significant role being played by the Moderator, he or she should give their constructive feedback preferably written which should be unbiased in a regular interval. The feedback report of Moderator should be given based on a systematic/scientific study of the program.

Stakeholders (Dashboard)

▸ **Investors**
People holding financial stakes of the software will be termed as Investors. They are mainly responsible for funding of the software for it's further operations.

▸ **Analytics Team**

Stakeholders (Web Users)

▸ **Website Users :-**

All the website user's will have to digitally agree to the 'Terms and Conditions as prescribed by the software developers. The Terms and Conditions for the user's will be drafted by competent Legal Professionals which will ensure that the user shall use the software platform only for Legally permissible events as prescribed under the various laws and/or countries laws and it shall not be used for any other purpose. Also the draft of the Terms and Conditions shall the protect the interest of the owners of the software platform.

▸ **Students**

This type of users use this platform for maintaining their personal records, allowing them to control their academic identity and also they are interested in enhancing their knowledge, technical skills.

▸ **Professionals / Teachers**

People with leadership mindset and a goal such as Professionals or Teachers can make goal oriented communities to work with or teach multiple people.

Stakeholders (Web Users)

▸ **Entrepreneur / Employee**

Such users are interested in developing their business getting smart contacts for getting their raw materials or for Sales & Marketing of their products/services. Such class of users are interested in getting business and for settlement of transactions. This type of users will be given access to the platform by the 'Admin' after establishing the credentials of the user and also getting documents for establishing their business identity.

▸ **Guest User**

Such users are 'Tech Savy' people who visits the site with intention for gaining knowledge about various products available in the platform. This type of user's scroll the website for finding such product/services/information etc. which could be of use or interest to them. Such users can log in without 'Login ID or Passwords' and their access will be to restricted only for viewing and not for financial transaction.

▸ **Service Clients**

Stakeholders (External)

‣ **Cryptocurrency Wallet Provider (Metamask)**

‣ **Public Profile Services**
Example: GitHub, LinkedIn, YouTube, Discord, Reddit, Facebook.

‣ **Legal Advisor**
Responsible for authentication of Terms and Conditions of the software in terms of National Law.

Events Table

Sr. No	Stakeholders	Activity	Event Type	Event	Source	Destination
1	Client / Owner	Owner is validated and a session for the Client is created and is logged in.	External Event	Entering the Metamask credentials and pressing on the "Login" button.	Owner	Owner, Metamask
		The dashboard populates the data and generates reports.	State Event	Detection of a new user session	-	Owner
		Checking for any failed user transactions and alerting them in notifications tab.	State Event	Detection of a new user session	-	Owner
		Checking for any emergency alerts for the user and display them.	State Event	Detection of a new user session	-	Owner
		The Owner can add and remove permissions for the users.	External Event	The Owner can Manage all Users in the heirarchy.	Owner	Appropriate Users
		After inactivity for 20 mintutes, the user is automaticcally signed out	Temporal Event	Inactivity of user	Owner	-
		Displays the list of Employees working	External Event	The owner can view the employees list who are working for the organization	Owner	Owner

Sr. No	Stakeholders	Activity	Event Type	Event	Source	Destination
1	Client / Owner	Makes updates to the website as per the changes	External Event	Owner introduces new UI features or updates content of the website.	Owner	Web Client
		Managed user is updated.	External Event	Owner/Client manages a user.	Owner	Users
		Gains complete access to the software	State Event	Validation of User session	-	Owner
		Populates a general analytics of the feedback to make it easier to read.	External Event	Checks for User Feedbacks	Users	Owner
		Software Reports are generated.	Temporal Event	Software Status updates on a timely basis	-	Owner
		The appropriate moderation actions are inflicted to the user, projects, businesses and communities	External Event	Moderates a certain user, project, community or business	Owner	Web Users
		User Session gets removed and the user is logged out.	External Event	Log Out	Owner	User Session
		All users will be logged out and any login would be restricted	External Event	Restricts the panel for everyone.	Owner	Panel Client

Sr. No	Stakeholders	Activity	Event Type	Event	Source	Destination
2	Administrator	Makes updates to the website as per the changes	External Event	Administrator introduces new UI features or updates content of the website.	Administrator	Web Client
		Managed user is updated.	External Event	Administrator manages a user.	Administrator	Users
		Gains complete access to the software	State Event	Validation of User session	-	Administrator
		Populates a general analytics of the feedback to make it easier to read.	External Event	Checks for User Feedbacks	Users	Administrator
		Software Reports are generated.	Temporal Event	Software Status updates on a timely basis	-	Administrator
		The appropriate moderation actions are inflicted to the user, projects, businesses and communities	External Event	Moderates a certain user, project, community or business	Administrator	Web Users
		User Session gets removed and the user is logged out.	External Event	Log Out	Administrator	User Session

Sr. No	Stakeholders	Activity	Event Type	Event	Source	Destination
2	Administrator	Owner is sent the reports that are generated by the Admin	External Event	Generates several reports	Admin	Owner
		The dashboard populates the data and generates reports.	State Event	Detection of a new user session	-	Admin
		Checking for any failed user transactions and alerting them in notifications tab.	State Event	Detection of a new user session	-	Admin
		Checking for any emergency alerts for the user.	State Event	Detection of a new user session	-	Owner
		The Owner can add and remove permissions for the users.	External Event	The Admin Manages all Users down in the heirarchy.	Admin	Appropriate Users
		After inactivity for 20 mintutes, the user is automaticcally signed out	Temporal Event	Inactivity of user	Admin	-
		Displays the list of Employees working	External Event	The Admin views the employees list who are working for the organization	Admin	Owner
		Terms and Conditions are updated for all users.	External Event	Updates Terms and Conditions of the software	Admin	All users

Sr. No	Stakeholders	Activity	Event Type	Event	Source	Destination
2	Administrator	The server gets rebooted and users will be in idle state.	External Event	Reboot the server in case of exceptions	Admin	Server, users
		Master Table is updated and log is generated.	External Event	Edits the Master Table	Admin	Database
3	Moderator	The user is validated and a new session is created and necessary data gets populated.	External Event	User Login	Moderator	Moderator
		List of Reported Activities are populated as per category.	External Event	Detection of a new session	Web users	Moderator
		Moderated Projects/ Activities are either listed or deleted depending on the conclusion of Verification.	External Event	Moderation/ Verification of new projects.	Moderator	Web users
		Reports are saved for future access.	External Event	Generating Reports of Moderated Projects	Moderator	Database
		If auto-mod detects any inappropriate actions from the users, a report is sent to moderator for further verification.	External Event	Auto-Mod of Activities	Users	Moderator

Sr. No	Stakeholders	Activity	Event Type	Event	Source	Destination
3	Moderator	A request to update terms and conditions is sent to the Admin.	External Event	Making Changes to Terms and Conditions	Moderator	Admin
4	Investors	Post Login, the Investor is given options to check reports or logistics of profits and other things as per their requirements.	External Event	User Login	Investors	Investors
		The demands for reports are alerted to the appropriate user	External Event	Demand various reports.	Investor	Target User
		User Session is deleted and the user is logged out	State Event	User Inactivity	-	Investor
		Reports notifications are alerted when a new timely report is generated	Temporal Event	Timely Finance Reports are sent to the investor to manage financesthe	Database	Investor
		Use Session is deleted and the user is logged out	External	User Logout	Investor	Guest User

Sr. No	Stakeholders	Activity	Event Type	Event	Source	Destination
5	Analytics Team	The user is validated and a new session is created and necessary data gets populated.	External Event	User Login	Analytics Team	Analytics Team
		The dashboard populates the distributed data and generates reports for analysis.	State Event	Detection of a new user session	-	Analytics Team
		A request is made to the database to present the data in a segregated form as per the user's requirementsas per the requirements	External Event	Choosing the type of category of data.	Analytics Team	Database
		Data is segregated orderly on the basis of a field value.	External Event	Segregation per field.	Analytics Team	Database
		The software maps through the dataset and presents the latest trends in a content based manner	External Event	Searching Trends	Analytics Team	Database
		Uploaded Reports are saved as drafts and can be saved later.	External Event	Uploading Statistical Reports	Analytics Team	Database

Sr. No	Stakeholders	Activity	Event Type	Event	Source	Destination
6	Guest User	A new verified account will be registered in the database after Metamask Validation.	External Event	Linking their Metamask account (Sign Up)	Guest User	Database
		After Signup, the user will have to fill forms for entering their personal details.	External Event	Filling up Details	Guest User	Database
		The account will then be registered as per the occupation of the user as either Student, Entrepreneur/ Employee or Professional .	External Event	Choosing the occupation or status.	Guest User	Database
		Displays lists of projects on the basis of their popularity/credits or on the basis of the user's search results.	External Events	Browsing Projects/ Business	Guest User	Guest User
		The user's access to the details is restricted to only a certain level.	External Events	Checking Details of a Business/ Project	Guest User	Guest User
		The user is sent a prompt to login to access the further details of the content.	External Events	Clicking "Read More" or "Join Now" for a project or Business	Guest User	Guest User

Sr. No	Stakeholders	Activity	Event Type	Event	Source	Destination
7	Students	The student is expected to upload his suitable documents of institution and details for verification.	External Event	User SignUp	Student	Database
		Student is verified as per their entered details and is free to explore the website.	External Event	Upload of details and documents	Student	Moderator
		A prompt with a tip for the software as per the user's interests (fetched from user search history) is displayed for further involvement and enoucragement on their interests	State Event	Detection of a new session	-	Student
		The user will be redirected to the appropriate content as per the guide/tip for ease of access.	External Event	On click of "Learn more" on a Tip/ Guide.	Student	Student
		Lists of Projects and Businesses are displayed on the user's screen as per their interests.	External Event	Opening the Explore Page	Student	Student
		The user is redirected to the project details page wherein the user has to fill the necessary minimum requirements for uploading a project and agree to the terms and conditions of Minerva.	External Event	Clicking on "Upload an idea"	Student	Database

Sr. No	Stakeholders	Activity	Event Type	Event	Source	Destination
7	Students	The user will now be allowed to make his own terms for their project and their project details that will be displayed publicly after verification.	External Event	Agreeing to Terms and conditions of Minerva	Student	Student
		The uploaded project details will be saved as a draft.	External Events	Clicking on "Save Changes"	Student	Database
		The project is now publicly available in the living and other users are free to browse the project as per the title or project description and moderator is allowed to validate the/moderate the project if necessary.	External Events	Clicking on "Upload Project"	Student	Moderator, Database
		If the project is of 'closed' type, the user will get a notification in their email in case someone volunteers to work on it.	External Events	Clicking "Volunteer to work" on a project	Student	The target Student
		The volunteer user will receive a email notification about the acceptance and they are allowed to join the project after the formalities.	External Event	On acceptance in a project	Student	Student
		A contract is signed on the blockchain network in the form of a transaction and the user is registered as a member of the project.	External Event	Clicking on "Join work" button	Student	Database, Blockchain, Student

Sr. No	Stakeholders	Activity	Event Type	Event	Source	Destination
7	Student	Once the upload of project has started, user will have to sign a contract that the project is owned by them and paying the appropriate Gas Fee and Taxes for the same.	External Event	Uploading of a project	Student	Metamask
		When the user Logs Out, user session is deleted and the user is now a Guest User for the website	External Event	User Log Out	Student	Guest User
		Changes regarding crypto wallet will be costed some gas fee. Updating details will save the new details. Prompt will be displayed on the update of the details.	External Event	Updating Details	Student	Database, Metamask
		List of Communities are displayed as the student's field of interests.	External Event	Exploring Communities	Student	Student
		A prompt of Rules and Regulations of the community will be displayed which has to be agreed to proceed with the joining. After the user joins, the community heads get notified with the new member.	External Event	Joining Community	Student	Teachers/ Professionals/ Community Heads.
		A validation request is sent to Metamask for validating the user wallet. Once approved, the user session is created and the user is logged in.	External Event	User Login	Student	Metamask
		The project is removed from listing and is temporarily saved in user's bin until further deletion where is it permanently deleted	External Event	Project Deleting	Student	Database

Sr. No	Stakeholders	Activity	Event Type	Event	Source	Destination
8	Entrepreneur /Employee	A form is displayed asking for details such as Business Name (optional), Experience for the business, Qualifications, Website / Portal (optional) and other personal details.	External Event	User SignUp	Entrepreneur /Employee	Database
		User is verified as per their entered details and is free to explore the website.	External Event	Upload of details and documents	Entrepreneur /Employee	Moderator
		User is redirected to Business Explore Page which is populated with lists of Business/ Start-up ideas and a new Tip pops up as per the user's interest.	State Event	Detection of a new session	-	Entrepreneur /Employee
		Lists of Projects and Businesses are displayed on the user's screen as per their interests.	External Event	Opening the Explore Page	Entrepreneur /Employee	Entrepreneur /Employee
		The user will be redirected to the appropriate content as per the guide/tip for ease of access.	External Event	On click of "Learn more" on a Tip/ Guide.	Entrepreneur /Employee	Entrepreneur /Employee
		The user is redirected to the business details page wherein the user has to fill the necessary minimum requirements for uploading a project and agree to the terms and conditions of Minerva.	External Event	Clicking on "Upload a business idea"	Entrepreneur /Employee	Database

Sr. No	Stakeholders	Activity	Event Type	Event	Source	Destination
8	Entrepreneur /Employee	The user will now be allowed to make his/her own terms for their business and their project details that will be displayed publicly after verification.	External Event	Agreeing to Terms and conditions of Minerva	Entrepreneur /Employee	Database
		The uploaded business details will be saved as a draft.	External Event	Clicking on "Save Changes"	Entrepreneur /Employee	Database
		A business smart contract is called and transaction is made as per the charges. The business would be public by default, unless the user has their own preferences.	External Event	Uploading a business	Entrepreneur /Employee	Metamask
		If the project is of 'closed' type, the user will get a notification in their email in case someone volunteers to work on it.	External Event	Applying to work for an e-Business	Employee	Entrepreneur
		The volunteer user will receive a email notification about the acceptance and they are allowed to join the project after the formalities.	External Event	On acceptance in a project	Entrepreneur	Employee

Sr. No	Stakeholders	Activity	Event Type	Event	Source	Destination
9	Service Clients	The client is redirected to the payment gateway after validation of the time period for the subscription and account.	External Event	Registering an API key for the paid Web Service of communities.	Service Clients	Database, CryptoWallet
		The submitted feedback is recorded in the database for an admin/moderator to look into.	External Event	Submitting Feedbacks for the service	Service Clients	Database
10	CryptoWallet	When a transaction is requested, the crypto wallet makes call to the appropriate smart contract and signs the transaction between the requesting user and the target user and both are notified about the transaction.	State Event	Incoming Transaction Request	Requesting User	CryptoWallet, Target User, Requesting User
		Validation API is used to authenticate the user's wallet and if authentication was successful, the user is logged in.	State Event	Account auth Request	Requesting User	Requesting User

Questionnaire

‣ **Client / Owner Questionnaire**
  https://forms.gle/Urdxh1A1feXqdyR29

‣ **Student - Teacher Survey**
  https://forms.gle/L82miUKhi99WQ5XVA