

Global Distributed Software Development  
Master Team Project SoSe 2022  
Milestone 1 – Project Team 1

*ProClick – Online Media Point*

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## Revision History

Name	Date Submitted	Date Revised	Revision Summary	Version
Ahmed Hassan	05.05.2022	-	-	1.0
Ahmed Hassan	08.05.2022	08.05.2022	Unique selling point in executive summary, added paragraphs for use cases, new use case added for searching media, admin messaging	1.1

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# Content and Structure for Milestone 1 document for review

## 1. Executive Summary

With the dawn of the Internet and the rapid expansion of the digital space over the past few decades, information accessibility across all sectors has skyrocketed. Consequently, the internet now serves as a distributed intermediary between service providers and consumers. Copyright and privacy issues have also scaled up due to large amount of digital data present on internet. Providing a web-based platform that leverages the internet's potential to simplify search, interaction and service provisioning between buyer and sellers opens unprecedented possibilities for both the parties. Providing platform to both buyer and seller for digital media will let them deal together at one platform, letting them share their digital products.

Our Project is a web-based application that allow user to sign in and either buy a digital product or sell it. User can see the product price, its quality and other features associated with it. He/she can see the availability of product also. User can also see who owns the product and history of product from its origin until now, who buys it who sells. Buyer and seller names will be given only against specific time interval. This is done to make user realize that product has regular buyer and sellers and buying of this product will give him advantage later. Reviews of specific product owner will be shown with product, so buyer can have some perception about product before buying. User can also rate specific product owner and product.

**Unique Selling Point:** If a user has uploaded 5 tutorials through their account, an access will be given to them and they can see one video of 1 hour for free.

We are a student team of curious software developers from Fulda, passionate to craft creative web-based solutions in order to simplify the exchange of information across digital space.

## 2. Personae and main Use Cases

### Personae and main Use Cases:

A persona(s) is a profile that is going to represent the primary users. With the help of Personas, it will help in a fictional representation and generalization of a cluster of the target users who exhibit similar attitudes, goals, and behaviors in relation to the product. This will help the product in:

- 1) Navigate design and feature decisions.
- 2) Settle disputes with the personas in mind.

The 2 main personas are as follows:

#### 1) Users

Students & Faculties

#### 2) Admin

##### a. Users:

- i. **General overview:** Users can be anyone and from any department who are studying or working as a professor (E.g PA for faculties) in the Hochschule.
- ii. **Goals:** The user's goal is to use the web application for successfully uploading, downloading, buying, selling, and sharing media and graphics.
- iii. **Skills:** The users know how to use SmartPhones, Desktops/Laptops, and have basic knowledge about how to use a website.
- iv. **Pain points:** The users should always have an internet connection or a wifi connection in order to use the website. They must always be logged in in order to surf the website. They cannot upload media without the administrator's approval.

##### b. Admin:

- i. **General overview:** The admin must be someone who is part of the project and have the credentials for keeping the website up and running.
- ii. **Goals:** The Admin's goal is to approve the user's uploading content and maintain the website.
- iii. **Skills:** The admin has knowledge about the system, and about the dashboard from where he/she can update, delete, and import users or the media content.
- iv. **Pain points:** The admin should always have an internet connection or a wifi connection in order to use the website. They must always be logged in in order to surf the website.

## Use Cases:

1. **Search Media:** When the users are interested in a particular media or file they should be searching for the desired media/ graphics in the search box field.  
A user needs to find a media which is related to the Computer Science course, he/she will be able to see a list of items upon clicking on the search button. The user can also search items using the keywords like Mathematics Linear Algebra.
2. **Upload a media:** The users can directly upload a file media or graphics which will be first reviewed by the administrator.  
The users will have the option to upload different types of media or files for example: For an image or a video, a camera icon will be displayed. The users can make a post that includes a normal text. Users can advertise products for sale or for free, just some type of message to the audience just by posting a message for example: Hello, I will be selling media(s) which is related to my latest research work in Artificial Intelligence on 30/06/2022. So grab the opportunity!
3. **Approve a media:** A media will be approved by the admin before it can go live on the website. The admin will check what the media is about, its type, and if it doesn't contain any sort of sensitive or inappropriate content.  
If a video contains any graphical content which is disturbing or supposed a hate speech, the admin will directly reject the media and put the user on the black list.
4. **Download a media:** After agreeing to the terms, one can download or access the item in full quality in some way. Free material should be downloadable in full quality right away, whereas selling media should only be obtained in full resolution after contacting the seller/owner. Both free media and purchased media can be downloaded anytime from the website.
5. **Delete a media:** If the owner/seller wishes to remove their content from their side, the media/material can be deleted at any moment and it will still be visible to the users as the media is stored on the server. Furthermore, the administrator has complete control over the removal of any content that is not legitimate to the users and may contain improper content, as well as the deletion of users.  
In the event of deletion of the media from one's device or device format, the user can still download the media from the website. Users who have already paid can download it at any time in the future. Only one copy will be there on the server. It will be safe on the server in the event that the user's electronic gadget fails.
6. **Chat Message:** Users will be able to message the proprietors for further information about the material or anything else, and the message receiver will be able to respond in the chatbox. If there are any questions that need to be answered by the owner or the person who posted a certain media, the administrator can send messages to the users.

### 3. List of Main Data Items and Entities

Sr. No	Entities	Data Items	Detail
1	Admin	String	A system administrator is responsible for managing seller's profiles, as well as to approval of media.
2	Seller	String	This entity contains the seller's information.
3	Reviews	String	When a buyer makes a purchase, there is a rating option to rate the seller's content.
4	Chat	String	This feature connects the seller and the customer, allowing them to communicate with no trouble.
5	Buyer	String	It contains the buyer's profile information
7	Media	String	This application's most important feature is its media. So, in this entity, we'll store media URLs of each product that will be linked with a specific buyer.

### 4. Functional Requirements

Sr. no.	Functional Requirements
1.	User can sign up and log in to the system using the university email
2.	User can search for the media.
3.	User can upload media in the form of text, image, audio, or video.
4.	User can download the media from the application
5.	User can delete the media from the application which is uploaded by himself
6.	User can access media owned by him anytime e.g if it gets deleted from computer
7.	User can send messages to other users (sellers/buyers) to sell/buy media.
8.	Admin user can view the media in the system
9.	Admin can create new media in the system
10.	Admin can delete media uploaded by the users
11.	Admin can block certain users.
12.	Admin user can approve the media uploaded by other users.
13.	Admin can view the list of users registered in the system
14.	Admin can update a user's profile
15.	User can see the number of total views on the media they uploaded
16.	User can get recommended results based on his previous search or tags

## 5. Non-functional Requirements

1. Application shall be developed, tested and deployed using tools and servers approved by Class CTO and as agreed in Milestone 0. Application delivery shall be from chosen cloud server
2. Application shall be optimized for standard desktop/laptop browsers e.g. must render correctly on the two latest versions of two major browsers
3. All or selected application functions must render well on mobile devices
4. Data shall be stored in the database on the team's deployment cloud server.
5. No more than 50 concurrent users shall be accessing the application at any time
6. Privacy of users shall be protected and all privacy policies will be appropriately communicated to the users.
7. The language used shall be English (no localization needed)
8. Application shall be very easy to use and intuitive
9. Application should follow established architecture patterns
10. Application code and its repository shall be easy to inspect and maintain
12. No e-mail clients shall be allowed.
13. Pay functionality, if any (e.g. paying for goods and services) shall not be implemented nor simulated in UI.
14. Site security: basic best practices shall be applied (as covered in the class) for main data items
15. Application shall be media rich (images, video etc.). Media formats shall be standard as used in the market today
16. Modern SE processes and practices shall be used as specified in the class, including collaborative and continuous SW development
17. For code development and management, as well as documentation like formal milestones required in the class, each team shall use their own GitHub to be set-up by class instructors and started by each team during Milestone 0
18. The application UI (WWW and mobile) shall prominently display the following exact text on all pages "Fulda University of Applied Sciences Software Engineering Project, Spring 2022 For Demonstration Only" at the top of the WWW page. (Important so as to not confuse this with a real application).



## 6. Competitive Analysis

→ Products	Sellfy <a href="https://sellfy.com/">https://sellfy.com/</a>	Podia <a href="https://podia.com/">https://podia.com/</a>	Payhip <a href="https://payhip.com/">https://payhip.com/</a>	ProClick
Features ↓				
User registration and login	✓	✓	✓	✓
Admin panel	✓	✓	✓	✓
Payment method (CoD)	X	X	X	✓
Offer on more uploads	X	X	X	✓
Smart Search	X	X	X	✓
Trial Account	✓	✓	✓	X (Free use)
Student discounts	X	X	X	✓
Product category filters	X	X	X	✓

The above comparison shows the main features of existing competitors with our product and additional features that our product will offer. Since cash on delivery is being implemented as payment method, the user doesn't have the headache of using debit/credit card or any other payment gateways while purchasing the items.

Smart search feature tracks and analyze the user search history to show the products he/she is most interested in. Buyer can see the number of views for his uploaded products.

Since other competitor platforms have limited trial accounts for the users, our product is free of cost and can be used for unlimited time period. It also offers student discounts on buying products.

## 7. High-level system architecture and technologies used

In order to provide the best possible platform to the users, we chose the following tools and technologies to develop the system:

- Server Host: Microsoft Azure (CPU: 210 ACU, Memory: 3.5 GB)
- Operating System: Linux
- Database: mySQL
- Webserver: Linux
- Server-Side Language: Node.js v16.15.0- Client-Side Language: Typescript React

Additional Technologies:

- Web Framework: Node Express

- IDE: VS Code

Supported Browsers:

- Google Chrome
- Mozilla Firefox
- Safari
- Microsoft Edge

## 8. Teams and Roles

Team Member Name	Role
Ahmed Hassan	Team Lead, Backend and Database Lead
Tarmah Iqbal	Frontend Lead
Mayank Chetan Parvatia	Backend Developer and Partial contribution in Frontend
Bilal Ahmad	Backend Developer
Abdullah Khalid	Github Master

## 9. Checklist

Task	Status (Done/On Track/Issue)
Team found a time slot to meet (online) outside of the class	Done
GitHub master chosen	Done
Team decided and agreed together on using the listed SW tools and deployment server	Done
Team ready and able to use the chosen back and front-end frameworks and those who need to learn are working on learning and practicing	On Track
Team lead ensured that all team members read the final M1 and agree/understand it before submission	On Track
GitHub organized as discussed in class (e.g. master branch, development branch, folder for milestone documents etc.)	On Track