PROJECT PLAN

Project Name: CyberPaper

DATE OF COMPLETION: 11/18/2024

PLACE: NHL Stenden University of Applied Science.

Version: 1.0

This is the Project plan for the newsletter company Gemorskos made by IC-INF-IT1G.

Contractor and Owner of Gemorskos:

- Walter Samplonius.

Team Members:

- Flavius Petrasciuc
- Milana Doborjginidze
- Carlos Schaap García
- Volkan Yildirim
- Stefan Bryda
- Cristiano Antonio Feio

Table of Contents

Contents

Overview of the document

We - IC-INF-IT1G students from NHL Stenden University of Applied Science are creating the product for the online newsletter company named Gemorskos, sponsored by Walter Samplonius. Our main goal is to create an intranet, on which we will improve communication within the company of the client, ensure the privacy of each of the employees and allow them to easily work on their projects without any issues, meanwhile, the manager would be able to track their progress or their contributions and be able to give them instructions.

Chapter 1: Background

Company Overview

The project takes place within a newspaper agency named Gemorskos that was founded 20 years ago. Initially, the company operated using paper-based systems, with simple processes and a small workforce. As the company grew and integrated more IT into its operations, the complexity of its work also increased. Today, the company employs many people, many of whom work remotely, in the field, or at the office. Despite the growth, communication and collaboration have become inefficient and disorganized. The Gemorskos company publishes online newspapers and has a physical store. Additionally, the client has identified the need for a print facility and a dedicated workspace to further support the agency's evolving operations.

Company Activities

The agency is involved in the publication of online newspapers, covering a wide range of topics. The editorial team works on numerous projects simultaneously, often managing hundreds of different topics at once. This requires effective communication and collaboration within the office, as well as with remote employees and freelancers. However, given the volume of employees and external contributors, the communication channels currently in use, such as email and WhatsApp, have proven to be inefficient and time-consuming.

Project Initiator and Reason for the Project

The client, Walter Samplonius, a journalist unfamiliar with IT systems and who is owner of the newspaper agency, has initiated this project to develop a secure and efficient digital intranet system after identifying several inefficiencies in the current systems. The client is actively involved in the day-to-day operations but faces difficulties in tracking the progress of diverse topics. Communication through emails and messaging platforms is not efficient, and the client feels that instructions provided to teams are sometimes unclear or difficult to track. As part of addressing these challenges, the client has also highlighted the need for a print facility and a workspace to better support the agency's diverse operations. As a result, the desire to create a more efficient digital platform has emerged. This system's purpose is to improve communication, collaboration, and streamline the tracking of work.

History of the Project

This project represents a new initiative addressing the limitations of existing communication tools. Previously, email and messaging platforms served the company well, but they are no longer suitable for the company's expanded size and complexity. The scope of this project is to create a digital platform that supports collaboration and increases operational efficiency and aligns with the company's need for a print facility and workspace.

Stakeholders and Roles

The key stakeholders in this project include **Gemorskos**, the client organization, which will benefit from the new platform. The **internal stakeholders** include employees from various departments within the agency; 3 editors, 1 editor-in-chief, 1 content designer, 2 administrators, 10 journalists, 5 camera operators, 1 web designer. Freelancers working with the company are also involved, but their access to the platform will be limited to specific project-related information.

The **external stakeholders** are the development team CyberPaper responsible for building and implementing the system, as well as any third-party experts who may be involved in areas like data security and GDPR[1] compliance.

Division of Roles

- **Client Organization: The client organization is the newspaper agency (employees from various departments within the agency mentioned in subtitle Stakeholders and Roles) responsible for using the system.**
- **The Sponsor:** The owner of the company, who will guide the project and make sure that the entire process of implementation meets the company's needs.
- **Project Group:** A team of technical experts responsible for designing and implementing the digital system with Flavius Petrasciuc as a Team Leader.
- **Freelancers**: A workspace will be provided with access to essential tools.

Relationship Between the Client, Project Group, and Other Parties

The client and owner of Gemorskos company, Walter Samplonius, is the commissioning person involved in guiding the project group to make sure that the system aligns with the needs of the organization. The commissioning organization is Gemorskos, which initiates and funds the project, making it their responsibility to make sure the project is completed according to their needs. The project group is responsible for the implementation aspects of the system, while external parties may contribute to specific areas such as security and compliance with privacy regulations.

[1] *GDPR* - is a European Union regulation on information privacy in the European Union (EU) and the European Economic Area (EEA).

Chapter 2: Project Outcome

This section of the project aims to break down the desired results for the desired outcomes.

"**Project Cyberpaper**" aims to develop an intranet platform for employees and the CEO/Chief Editor of a newspaper agency within 8 weeks. This platform will provide a secure digital environment where employees can communicate with one another and with the Chief Editor, enhancing data management and project management capabilities. The goal of the project is to increase productivity and efficiency by facilitating improved communication and collaboration through the intranet platform.

The final product of the project must include the following features:

- A dedicated platform where users can work securely on projects and manage tasks without any external interference.
- Real-time collaboration on articles and other projects, allowing team members to work together on the same document or project simultaneously.
- Centralized information storage, providing a unified space to store all project-related materials, including documents, images, and videos.
- Tools for the client to monitor employee compliance with assigned tasks and instructions to ensure they are completed as expected.
- Visibility into the projects and tasks of other team members, restricted to employees only.

The following preconditions are expected from the client for the project to be successful:

- The **client** is required to be physically present in a room reserved by team members at least once a week, to track progress or discuss project developments. (Negotiable with the client).
- The client must fulfill their responsibilities by being available and present during the scheduled appointment.
- The **client** must provide weekly feedback and funding to realize this project.

Chapter 3: Project activities

This chapter describes the activities that will be done to fulfil the project.

Phase 1 – Initiation:

Organization and having regular team meetings are an essential part of the project.

To follow it, it has been decided to create an internal structure of the team:

- Group Leader
- Secretary
- Team member
- Quality Control

Create a code of conduct, which dictates the inner workings of the group. The code of conduct must be approved and signed by each team member.

Divide the workload and set up deadlines.

Then in collaboration with the Client, meetings are regularly set up and attendance is in person.

As well as with respect to project requirements the following documents are prepared and approved by the client. The documents provide a roadmap for the project, from start to finish:

- Project Plan
- Functional Design
- Requirements Analysis
- Network Diagram
- Infrastructure
- Work instructions

Phase 2 – Realization:

- Organize and have a meeting to initialize the realization of the product.
- Divide the workload among the group members and set up a deadline.
- Have a meeting with the group members and analyze our **first milestone** [1](week 2)
- Create a code of conduct.
- Started working on Project Plan
- Have a meeting with the group members and analyze our **second milestone**
- Drawing Network Diagram (week 3)
- Finalizing Network Diagram (weel 3)
- Preparing Requirements Analysis, Functional Design and Project plan (week from 2 to 4)

- Submitting all necessary documentation; Requirements Analysis and Functional Design. (Week 4)
- Have a meeting with the group members and analyze our **third milestone**
- Divide the workload among group members and set up a deadline. (week 6 & week 5)
- Start implementation on the servers and working on the creation of work instructions and relevant documentation. Actively working on Infrastructure. (week 6)
- Have a meeting with the group members and analyze our last **fourth milestone.**
- Have a meeting with our client to discuss if the system needs changes (week 8)
- Complete and submit the definitive version of the product along with all documentation and time sheets of the group members. (week 8)
- Presentation preparation. (week 9)
- Presenting the end-product (week 9)

[1] A **milestone** itself is a significant checkpoint or event in a project that indicates progress.

The first milestone represents the official start of the project. It involves aligning the team, understanding the project's scope, and setting foundational rules for collaboration. Also, it ensures that everyone understands the project goals, responsibilities, and expectations, forming a solid foundation for the project.

The second milestone involves completing and submitting all necessary project documentation to stakeholders.

The third milestone. This milestone signifies the transition from planning to technical implementation supported by infrastructure work.

The fourth milestone. This milestone represents the conclusion of the project, marked by the delivery and presentation of the final product.

Chapter 4: Project Boundaries

Length:

The project duration is 8 weeks. The project scope is to design and implement a digital intranet system for the newspaper agency Gemorskos, for the purpose of improving communication, collaboration, and data management. By the end of this period, the project will deliver the following:

- A secure, private, and collaborative system that supports file sharing in the database and project management.
- A workspace designed to support employees and freelancers, providing them with access to essential tools and collaboration systems.
- Features to allow employees to track tasks, view project statuses, and access the necessary data.
- The system will support both text-based and multimedia content, giving access to the employees to manage articles, photos, and videos.
- The system will be used to GDPR[1] (term is explained above in Chapter 1) privacy and security regulations, giving data protection.
- A system enabling the creation, approval, and publication of articles.
- Implementation and comprehensive documentation.

Breadth:

The project will not include

- The development of a public-facing website or marketing materials.
- Ongoing maintenance or support after the system has been delivered (post-implementation is not part of this scope).

Conditions for Success:

For the project to succeed, the following conditions must be met:

1. Client availability for feedback: regular communication and feedback from the client to make sure the deliverables align with expectations.

2. Thorough testing: time and resources for testing the infrastructure and database to ensure functionality and security before the handover.

3. Realistic expectations: the client and team must maintain realistic goals, avoiding any requests outside the agreed upon deliverables during the project timeline.

4. Availability of specific tools: for the project to succeed, it is essential that all required tools and software are available throughout the project.

Chapter 5: Intermediate Outcomes

This section provides a detailed overview of the project's phases, outlining the intermediate deliverables that the team is expected to complete at each stage. It is designed to ensure the project progresses seamlessly, with each objective being steadily accomplished along the way.

As we are halfway through the project we should already have:

- A consistent project plan.
- A requirements analysis.
- A functional design.
- A version control system.
- A selected design for the project.
- A login function for employees and for the Admin.
- The beginning of the database.

Having these intermediate results in mind will help both the client and the team members see at what stage the project is and if it is going to be feasible.

Having these intermediate results in mind will help both the client and the team members see at what stage the project is and if it is going to be feasible.

Chapter 6: Quality

Ensuring the quality of our project is critical to its success. It guarantees that the final product meets both functional and performance requirements. Our quality control approach includes several strategies at every stage of the development process to maintain high standards, ensuring the final product aligns with client expectations and adheres to their requirements.

Ensuring Quality of Project Results

The project will be developed in full alignment with our client's corporate identity, company culture, branding, and values. Quality assurance will focus on usability, performance, and security to ensure the system fulfills the client's vision and operational needs.

Ensuring Quality of Intermediate Results

Quality controls will be integrated into every phase of the project to ensure interim deliverables meet established standards. Carlos, the team member responsible for quality, will continuously monitor the process, and the status will be discussed during weekly team meetings.

Requirements analysis will be conducted to provide clear and accurate specifications that will guide design and development phases. A functional design will be developed to outline the system's needs, functionalities, and requirements. The infrastructure will meet the client’s specifications. It will be tested, and a description will be provided.

Our quality assurance process ensures data accuracy and integrity while guaranteeing high availability. Given the sensitive nature of information, the project will comply with the client’s data handling, security, and user access protocols to uphold privacy and security standards. Additionally, the project will adhere to compliance standards such as GDPR and AVG.

Controls Implemented to Monitor Quality

- Weekly Team Meetings: The team will hold weekly meetings to evaluate progress, address challenges, and ensure tasks are completed on time and in compliance with established standards.
- Data Control: To comply with GDPR, all types of personal data processed by the system (e.g., employee records, client information, IP addresses) will be identified and managed securely.

- Access Control: Access to sensitive data will be restricted based on roles and responsibilities.
- Client Feedback: Regular feedback from the client will be gathered to ensure the project aligns with their expectations. Any disagreements or issues will be reassessed and addressed according to the client's wishes.
- Reviews: Before presenting any delivery to the client, internal reviews will ensure all required standards are met. Team members will present their designs for review by both the team and the client. Based on client feedback, the final design will be selected.

Quality Standards, Methods, and Tools

The project will be developed using HTML, CSS, PHP, and MySQL with best practices applied to each technology to meet required standards. The codebase will be continuously reviewed by team members to identify errors, security vulnerabilities, and opportunities for performance improvement. Code reviews will also ensure compliance with W3C standards.

Load times, stress tests (e.g., response time, error rate), user feedback analysis, and optimization of critical functions will be thoroughly evaluated. To ensure ease of navigation and accessibility, usability testing will be conducted by observing real users as they complete tasks. Development reviews, and regular progress meetings will be conducted to identify and address any issues early in the development process.

Issues will be categorized based on severity, assigned to relevant team members for resolution, and followed up with testing to ensure the effectiveness of the solution. The results will be shared with the client for further refinement.

Staged Delivery of Products

The project will be delivered in phases, allowing for client feedback and adjustments as necessary. Before each delivery, all standards will be reviewed by the team. At each stage, client approval will be obtained prior to proceeding. Expectations will either be met or adjustments will be made to align with the client's requirements.

Chapter 7: Project Organization

Team Organization

As with any other project, teamwork is required for effective and efficient development. Therefore, the current project involves six team members, each of whom has taken a special role and must contribute to the project based on what their role entails.

Information regarding each team members along with their personal roles is specified in the table below:

Team member name	Team member e-mail	Team member role
Flavius Petrasciuc	flavius.petrasciuc@student.nhlstenden.com	Project Manager
Milana Doborjginidze	milana.doborjginidze@student.nhlstenden.com	Secretary
Carlos Schaap García	carlos.schaap.garcia@student.nhlstenden.com	Quality Control
Volkan Yildirim	volkan.yildirim@student.nhlstenden.com	Team Member
Stefan Bryda	stefan.bryda@student.nhlstenden.com	Team Member
Cristiano Antonio Feio	cristiano.antonio.feio@student.nhlsteden.com	Team Member

Responsibilities

1. The Project Manager

- Must hand out strikes to any project member who does not fulfil the responsibilities stated in the code of conduct or who fails to deliver the work properly.
- Is responsible for communicating with the teachers/client on behalf of the team.
- Oversees the appropriate organization of files.
- Is responsible for organizing version management.
- Must create a schedule of all the activities carried out by the team.
- Is constantly aware of the situation within the group and the progress of each task.

2. The Secretary

- Alongside the Project Manager, the Secretary is also in charge of handing out strikes to the other team members based on the same criteria as stated above (the improper delivery of work entailed in the project or the disobedience of the code of conduct).
- Is responsible for the organization of files within the file storage environment.
- Takes note of all essential group discussions and topics discussed during meetings.
- Notes the attendance of all team members.

3. The Quality Control

- Checks whether all products and subproducts developed by the group meet the requirements set.
- Is responsible for the structure, grammar and contents of documents and presentations.
- Takes notice of differences in knowledge and ability of the project members.

3. The Team Members

- Must deliver work within the group by executing the assigned tasks.
- Must actively engage in group activities and collaborate with other team members.
- In the absence of the chairman, team members bear the responsibility of assuring the balanced distribution of work.
- Are responsible for actively engaging in group discussions and in making agreements.
- Ensures a welcoming and pleasant atmosphere within the environment of the group.
- Helps in mediating potential conflicts between other team members.

Availability

The availability of the members of this project is full-time, as the proper development of the required product entailed in the current project is of main priority. There are no periods of unavailability planned in the future of the project's development.

Communication

Internal communication.

Communication between team members is assured through regular meetings on campus, where different issues regarding the project must be discussed and assessed. Outside of school hours, communication is done through means of online applications such as WhatsApp, Discord and Microsoft Teams.

The team members make use of applications such as Microsoft Planner to keep track of important elements within the scope of the project and to assure that all deadlines are met.

External communication.

Communication with the client is carried out during ateliers but can also be set up via the scheduling of personal meetings where additional information as well as feedback on the progress of the project may be requested.

Meetings

Meetings between team members are mainly held during ateliers, where members of the group have the opportunity to work together and assist one another, as well as to discuss any goals or issues regarding the project.

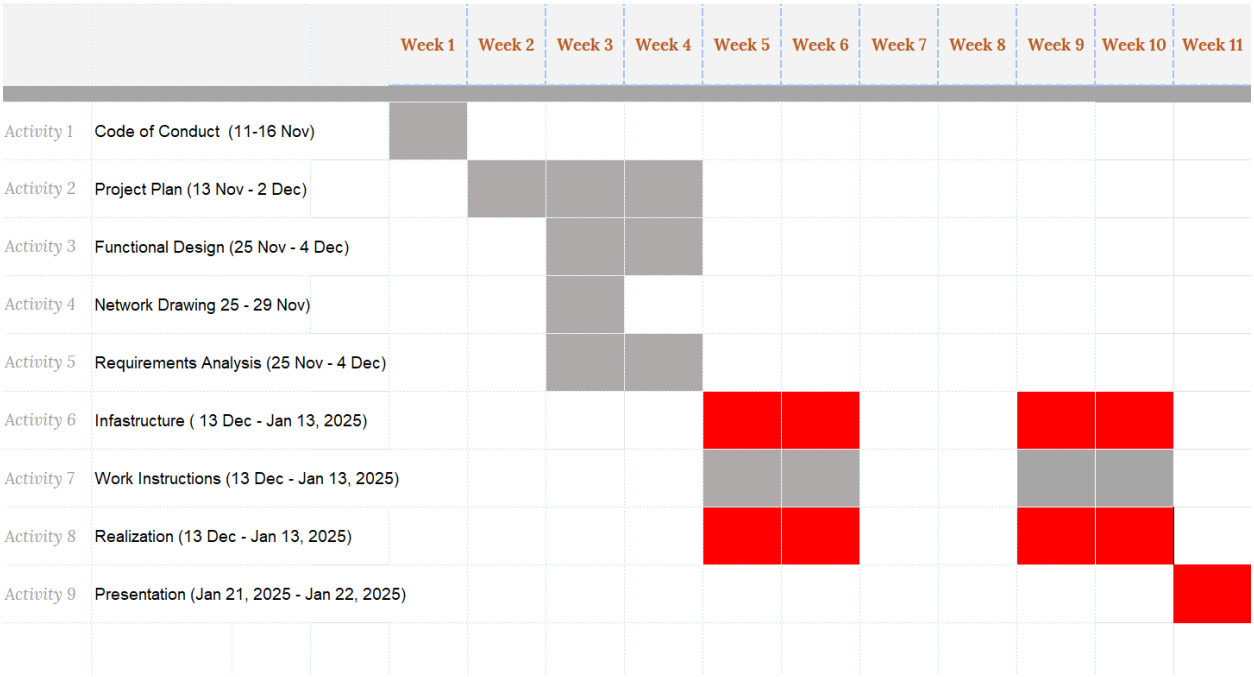
Meetings with the client are also held during ateliers depending on the availability of the client. Otherwise, meetings can be scheduled at any time when the client is available.

Error Handling

Bugs, errors and any other irregularities must be reported to the project manager and addressed immediately.

8. Planning

This chapter describes a plan made based on activities described in chapter 3, including the periods of each activity. The plan itself is made using a Gantt chart made by Microsoft. On week 7 and 8 there's a Christmas vacation so the work will temporarily stop. The red path indicates the high importance of the activity.



The project is estimated to be completed within 8 weeks and 1 week of presentation.

The project is expected to cost 292 hours per person or 1512 hours in total among all six team members. Each team member is expected to work around 28 hours per week.

Chapter 9: Costs and Benefits

This section aims to show the **costs** that will be incurred during the duration of **8** weeks for the creation of Project "**CyberPaper** "and its **benefits**.

Wages: the minimum wage for the members of Group **IT1G** is €100 per hour

1) Development Costs

- Feature Implementation:
    - Secure workspace with encryption: €20
    - Real-time collaboration functionality: €30
    - Centralized storage system: €15
    - Monitoring tools for task adherence: €12
    - Employee task/project visibility: €10
- **Total Development Costs: €87**

2) Infrastructure and Licensing Costs

- Servers: €2,100 (€700/server)
- Installation and setup of servers: €100/hour
- Hardware firewalls: €1500(one-time)
- Software firewalls: €1000(one-time)
- **Total Infrastructure Costs: approx. €5000**

3) Maintenance and Updates

- Ongoing maintenance: €10.000/year
- Feature updates and bug fixes: €50.000/year
- **Total Maintenance Costs: €60.000/year**

Note: Maintenance is done on behalf of the manager and is therefore optional. As such, the costs of maintenance are just an approximation for the manager to take into account.

4) Design costs: the cost of the design of the intranet platform.

- Intranet: €50.000

5) Training and Change Management

- Employee training on platform use: €5,00 (one-time)
- Change management and adoption strategy: €3,00 (one-time)
- **Total Training Costs: €8,00**

6) Wages

- Wage: min. €100/hour
- Work weeks: 3
- Team members: 6
- Hours of work: 5 hours/day
- Total number of hours: 75
- **Total wage costs: €45.000**

7) *Total overall costs:*
After all calculations, we were able to reach an approximate of hours that will be spent on this project and which adds up to **75** hours, we were also to calculate the total cost of this project, and the amount is **approx. €150.000**.

Note: This amount includes maintenance of the website, which is optional.

Benefits

1) Increased Productivity:

I) Prevents external distractions and data breaches, ensuring teams can focus on their tasks.
II) Eliminates back-and-forth emails and delays in document sharing (Is a serious problem for the client)

2) Saves time spent searching for files or recreating lost documents.

3) Enhanced Monitoring and Accountability:

I) Allows the manager to ensure tasks are completed as per instructions.
II) Reduces errors or miscommunication.

4) Transparency and Collaboration:

I) Improves team alignment.
II) Encourages a collaborative culture and boosts morale.

5) Security and Compliance:

I) Protects sensitive data from breaches, avoiding potential fines or losses, and ensures the security of employees' personal information.

II) Ensures compliance with the GDPR and avoids legal risks (a necessity for the client)

In conclusion, this project requires a significant upfront cost but offers strong yearly benefits, including better productivity, teamwork, and compliance with regulations. Over time, it will save money, improve collaboration, and reduce legal risks, making it a valuable investment for an organization like this that prioritizes security and efficiency.

Chapter 10: Risks

Risks are possible dangers that could make the project not finish on time.

Factor is how likely a risk is going to happen, it has a value from 0 to 1, 0 meaning that the risk is most likely not going to happen and 1 that the risk is most likely going to happen.

Weight is how much harm the risk does to the project if it happens.

RISK	HOW WILL WE SOLVE IT?	FACTOR	WEIGHT	TOTAL RISK
Poor time management	To solve this we would have to plan the following weeks better than before.	0,30	0,70	0,21
Bad version control management	If we don't have a good version control management we would have to research over how to make a good version control management and make a proper one.	0,20	0,40	0,08
The project is poorly coordinated	If the project is poorly coordinated the project leader would have to arrange a meeting between the team members and organize everything during that meeting so everyone knows	0,40	0,60	0,24

	what they have to do.			
Team members don’t know what the goal is	If the members of the team don't know what the goals are they will have to ask on the group chat.	0,50	0,50	0.25
The assignment is unclear	If the assignment is unclear then we should ask the teachers.	0.50	0.20	0.10
Insufficient number of members in the group	If there is an insufficient number of team members then work should be divided between the rest of the group.	0.10	0.90	0.09
The division of roles is unclear	If the division of roles is unclear we will have to make a group meeting and clarify.	0,10	0.30	0.03
Team members can get hurt or sick	If team members get hurt or sick then we will have to redistribute the work between the team members that are not sick.	0.20	0.60	0.12
The data base could face corruption or data loss	If the data base faces corruption or data loss we would have to either do a backup or we will have to remake the project from the beginning.	0.15	0.80	0.12

Communication between members is unclear	If the communication is unclear then the team leader should facilitate communication between members	0.10	0.70	0.07
Insufficient documentation	If there is insufficient documentation then the team should work on making more.	0.10	0.50	0.05
Will there be any team members being kicked out of the group	If there is any team members kicked then we would have to divide his part of the project between the rest of the members	0.10	0.80	0.08
Human errors during development	If there are any human errors then the group should search where the problem is and solve it so it can be fixed	0.60	0.50	0.30

TOTAL		3,35	7,50
RISK			13,38%

The risk of the project is not that high; thus, the successful completion of the project is most likely to happen.

This risk analysis is based on section 3.12 of the book Project Management: A Practical Approach from Roel Grit.