Feasibility Study for Project Name

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# Introduction/ Background

## Statement of work

The project aims to create a web publishing system that will help the local editor to efficiently manage the process of reviewing and publishing articles on the society's website. Specifically, it will accomplish the following:

* Maximize the editor's productivity by providing tools to automate the article review and publishing process.
* Facilitate communication between authors, reviewers, and the editor via E-Mail.
* Provide a uniform review process using preformatted reply to forms that can be configured via the application's maintenance options.
* Allow the editor to access and manage a relational database containing a list of authors, reviewers, and articles.
* Make the system user-friendly and easy to understand, to minimize the learning curve for the editor.

## Scope of Work:

The project aims to develop a system that will automate and streamline the process of reviewing and publishing articles on the society's website. The work to be done to accomplish this includes:

* Requirements Gathering to understand the editor's needs and identify key tasks the system must support.
* System Design that includes creating a detailed architecture, specifying software and hardware requirements, and identifying any additional resources needed.
* Development of the system by writing code, testing it, and debugging issues.
* Deployment of the system on a web server and configuring it to work with the historical society's website and email system.
* Documentation and training provided to the local editor and other society members who will be using the system.
* Testing and Quality assurance process to ensure that the system is working as expected.
* Communication and collaboration with the local editor throughout the project to ensure that the system is meeting their needs and to make any necessary adjustments.

The project will require the following hardware and software:

* A web server, which could be physical or cloud-based, to host the system and serve its pages to users.
* A relational database management system (RDBMS) such as MySQL, PostgreSQL, or MariaDB to manage the relational database.
* Additional storage depending on the size of the relational database.
* The web publishing system itself, written in a language such as Python, Java, Ruby, or JavaScript, and a web framework such as ExpressJS.
* An email server, to facilitate communication between authors, reviewers, and the editor.
* Additional software such as Amazon Web Services if a cloud-based server is used.

The steps to be taken on this project include:

* Writing code to implement the features specified in the requirements gathering phase.
* Configuring and setting up the web server, relational database, email server and other software components.
* Integrating the various software components to work together.
* Testing the system to ensure that it meets the requirements and is free of bugs.
* Deploying the system on the web server and configuring it to work with the historical society's website and email system.
* Providing documentation and training to the local editor and other society members who will be using the system.
* Monitoring the system performance and troubleshooting it when needed.

## Location of Work:

The work for this project can generally be performed at a location of your choosing. The development and testing of the system can be done in an office or remotely, if the team working on it have the proper equipment and internet connectivity. If the web server and relational database are hosted on a cloud-based service, the work could be done remotely if the team has access to the cloud console and a stable internet connection.

If the web server and the database are hosted in the office, the system administrator will have to access the physical location of the server, to perform deployment and ongoing maintenance.

It's also important to consider that some of the work, such as communication with the local editor of the historical society and other stakeholders, might require face-to-face or remote meetings, it's also important to have a way for the team to collaborate on development, testing and documentation tasks, so a project management tool, version control software like Git, or a team collaboration platform like Microsoft teams, might be used.

Overall, the specific location of the work will depend on the type of hosting that is chosen for the project, and on the team's ability to access and work with the necessary equipment.

The location of the hardware and software for this project will depend on the specific design that is chosen for the project.

* For cloud-based hosting: The hardware and software resources will be hosted on cloud infrastructure. The people working on the project will access resources through the cloud provider's management console. This means that the team members can perform the work from any location if they have internet access.
* For on-premises hosting: The hardware and software resources will be hosted on physical servers located at the office. The people working on the project will need to access the physical location of the servers to perform the work.

As for the people working on the project, they can perform the work from any location that suits them best if they have internet access. They can work in an office, remotely, or a mix of both, depending on the team’s preference and the current situation such as COVID-19 pandemics, and company's policies.

## Period of Performance:

The specific start and end dates for the project, working hours, and the number of hours that can be billed per week will depend on the specific arrangements that are made with the client. These details will need to be agreed upon between the parties involved before the project begins. Some factors that could affect the project schedule include:

* The complexity of the project and the size of the team working on it.
* The availability of the local editor and other stakeholders who will be involved in the project.
* Any specific deadlines that the client has for the project.
* Any external factors that might affect the project.

Working hours could be a traditional 9-to-5 schedule, or it could be a flexible schedule, it will be agreed upon with the client.

The number of hours that can be billed per week will also depend on the specific arrangements made with the client. This can vary depending on the budget, the scope of the project, and the availability of the team members.

It's important to be aware that the project manager should establish a schedule and plan to keep track of the work progress such as sprints, and the team should follow it to meet the project deliverables in a timely manner.

As for the location of the work, I have mentioned in my previous answers, it could be performed remotely or in the office, depending on the hosting infrastructure and team preferences.

Overall, it's important to agree on a schedule, working hours, and billing details with the client before the project begins to ensure a successful outcome.

## Deliverables Schedule:

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| **Week** | **Task** | **Deliverable** |
| 1-2 | Kickoff meeting and requirements gathering | Project plan and list of deliverables |
| 3-6 | System design and development | System design portfolio |
| 7-8 | System testing and debugging | Testing report |
| 9-10 | User acceptance testing | Feedback report |
| 11-12 | Deployment and training | Deployment and training documentation |
| 13 | Finalize documentation and close project | Final documentation |

This is an example and tasks, or delivery can change according to project requirements and agreements.

## Applicable Standards:

The specific company or industry standards that are relevant to performing the work on this project will depend on the client's requirements. However, some general standards that may be relevant include:

* Web Content Accessibility Guidelines: These guidelines provide recommendations for making web content more accessible. The web publishing system should be designed to meet these guidelines to ensure that it is accessible to as many users as possible.
* Data security standards: Depending on the kind of information that the system will store, the client may be subject to data security regulations. For example, if the system will store any personal information, it may be subject to compliance with regulations.
* Web standards: The system should be designed to comply with industry-standard web technologies. This will ensure that the system can be accessed by a wide range of users and devices.
* Usability standards: The system should be designed to be easy to use, with a clear, simple interface that makes it easy for the local editor and other society members to perform key tasks.

## Acceptance Criteria:

The buyer organization (in this case, the local editor) will determine if the work is acceptable by reviewing the deliverables provided by the project team and evaluating whether they meet the requirements that were established during the requirements gathering phase. They may also conduct testing, training, and user acceptance testing to ensure that the system is working as expected and is user-friendly.

Here are some specific steps the local editor might take to evaluate the work:

* Review the system design document: The local editor and other stakeholders will review the system design document to ensure that it meets the requirements that were established during the requirements gathering phase.
* Test the system: the project team will conduct testing of the system, including functional testing, user acceptance testing, and performance testing to ensure that the system is working as expected and meets the requirements.
* Evaluate the documentation and training materials: The local editor and other stakeholders will review the documentation and training materials to ensure that they are complete and easy to understand.
* Monitor and evaluate the system's performance: the testers will monitor the system's performance after it is deployed to ensure that it is meeting their needs and that it is scalable enough to support the organization's needs. They may evaluate the system's performance and identify any issues that need to be addressed.
* User feedback: The local editor and other stakeholders will provide feedback on the system's usability and performance, to identify any issues or areas for improvement, and measure user satisfaction.

## Special Requirements:

* Hardware or software certifications: Depending on the technology stack chosen for the project, the team working on the project may be required to have certifications in specific hardware or software.
* Minimum degree or experience level: The team working on the project should have the necessary skills and experience to complete the work.
* Data privacy and security: As previously mentioned, the system may be subject to data privacy and security regulations.
* Communication skills: The team members should have strong communication skills, as they will be working with the local editor and other stakeholders and should be able to clearly explain technical concepts to non-technical people.

# Business Objective

The primary business objectives of this project are to maximize the editor's productivity and efficiency by automating the article review and publishing process, and to meet the editor's needs by providing a system that is easy to use.

The outputs of this project, or the value it will provide, include:

* Time savings for the editor: By automating the article review and publishing process, the editor will be able to focus on more important tasks and will have more time to spend on other activities.
* Improved efficiency: By providing tools to assist in the article review and publishing process, the system will improve the overall efficiency of the process, allowing the editor to get more done in less time.
* Improved communication: By providing a platform for communication between authors, reviewers, and the editor, the system will improve the overall communication process and make it easier for the editor to manage the article review and publishing process.
* Improved user experience: By providing a system that is easy to understand and use, the system will improve the overall user experience for the editor and other society members.
* Accessibility: By providing a system that is compliant with the Web Content Accessibility Guidelines, the system will be more accessible to people with disabilities and will provide a better overall experience for all users.

# Current Situation and Problem/Opportunity Statement

A current situation refers to the current situation. It can include information about the background, context, and environment in which a problem or opportunity exists.

A problem/opportunity statement is a concise description of the issue or opportunity that the project aims to address. It should clearly identify the problem or opportunity and explain its significance.

In the case of the web publishing system, the current situation might be that the editor is responsible for managing and communicating with a group of reviewers and authors to publish articles to a public website. Currently, this process is performed manually and is time-consuming, and the editor is looking for ways to automate this process.

The problem/opportunity statement for this project might be: "The manual process of managing and communicating with reviewers and authors to publish articles to a public website is time-consuming and inefficient, resulting in a reduced productivity of the editor. The project aims to develop a web publishing system that automates the article review and publishing process and provide tools to assist in communication and management to increase the editor's productivity and efficiency."

# Critical Assumption and Constraints

Critical assumptions and constraints are factors that are important to the project but are not within the control of the project team. They can impact the project's schedule, budget, and overall success if not considered.

Here are some examples of critical assumptions and constraints that might be relevant for the web publishing system project:

Assumptions:

* The editor and stakeholders will be available to provide input and feedback on the project requirements, design, and testing.
* The historical society has a reliable and stable internet connection for hosting the website.
* The historical society has the necessary resources and budget to maintain the system and any related hardware or software.

Constraints:

* The system must comply with data privacy and security regulations.
* The system must be compliant with the Web Content Accessibility Guidelines (WCAG).
* There are no existing systems in place that can be used or integrated with the new system.
* The system must be designed and developed within a specific timeframe and budget.
* The system must be compatible with the existing historical society's data structure and database.

# Analysis of Option and Recommendation

Option analysis and recommendation is a process of evaluating different options or solutions to a problem or opportunity, and then selecting the best one based on a set of criteria.

In the case of the web publishing system project, option analysis and recommendation would involve evaluating different options for automating the review and publishing process, and then selecting the best option based on criteria such as cost, feasibility, scalability, security, and usability.

Here is an example of how the option analysis and recommendation process might be performed:

* Identify potential options: Identify potential options for automating the review and publishing process. These might include developing a custom web-based system, using an off-the-shelf solution, or outsourcing the process to a third-party provider.
* Evaluate options: Evaluate each option against a set of criteria, such as cost, feasibility, scalability, security, and usability. For example, a custom web-based system may have a higher cost but more flexibility and scalability, while an off-the-shelf solution may be less expensive but less customizable.
* Select the best option: Select the option that best meets the criteria and is most feasible for the project.
* Make a recommendation: Make a recommendation for the selected option and provide a justification for the decision.
* Implementation: Implement the solution and monitor the progress to make sure it is achieving the expected results.

# Preliminary Project Requirements

Preliminary requirements are a set of initial requirements that are defined before the detailed requirements are developed. They are high-level statements of what the project needs to accomplish, and they provide a general understanding of the scope and objectives of the project.

For a web publishing system, some preliminary requirements might include:

* Automation of the review and publishing process: The system should automate the process of managing and communicating with reviewers and authors and allow for the publishing of articles to a public website with minimal manual intervention.
* Editor's productivity: The system should increase the editor's productivity and efficiency, by providing tools to assist in communication and management.
* Easy-to-use and accessible: The system should be easy-to-use and accessible for society members.
* Compliance with regulations: The system should be compliant with data privacy and security regulations, and accessibility guidelines.
* Integration database: The system should be compatible with the existing data structure and database.
* Meeting specific timelines and budget: The system should be designed and developed within a specific timeframe and budget.

# Budget Estimate and Financial Analysis

A budget estimate is an estimate of the costs associated with a project, including both direct and indirect costs. A budget estimate is developed by breaking down the project into smaller, more manageable components and then estimating the cost of each component.

A financial analysis is an examination of the financial performance of the project, including an analysis of the costs and benefits of the project. This analysis is used to determine the project's overall financial viability and to identify potential areas of cost savings or cost overruns.

A general example of costs for the project might include:

* Development costs: The costs associated with designing and developing the system, including software development, testing, and debugging.
* Hardware costs: The costs associated with any hardware that is needed for the system, such as servers or PCs.
* Ongoing maintenance costs: The costs associated with maintaining the system over time, including software updates and security enhancements.
* Training costs: The costs associated with providing training for the editor and other stakeholders on how to use the system.
* Travel costs: The costs associated with travel for the project team and stakeholders.
* Contingency costs: A budget reserve or allowance for unexpected or unplanned expenses.

# Schedule Estimate

A milestone summary is a list of significant events or achievements that mark important points in the project timeline. Milestones are typically used to track progress and ensure that the project is on schedule. A rough schedule of the project can be a visual representation of the milestones and deadlines of the project to help the project team and stakeholders to understand the project timeline.

Here is an example of a milestone summary and rough schedule of the project for the web publishing system:

Assume that the project is 13-week project by using the deliverables schedule to assign the deadlines for the project milestones, and we previously said that the working hours are normal 9-5 schedule so by assumption 8 hours a day thus 40 hours a week.

Milestone Summary:

* Requirements gathering and project planning
* Design and development of the system
* System testing and debugging
* User acceptance testing
* Deployment and training
* Final documentation and project closure

# Potential Risks

Project risks are potential events or circumstances that could negatively impact the project's ability to achieve its objectives, such as schedule delays, budget overruns, or quality issues. Identifying, analyzing, and managing risks is an important part of project management, as it helps to ensure that the project stays on schedule and within budget while meeting the requirements of the stakeholders.

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| **Ranking** | **Potential Risk** |
| 1 | Security vulnerabilities |
| 2 | Technical difficulties |
| 3 | Resource constraints |
| 4 | Inadequate testing |
| 5 | Unclear or changing requirements |
| 6 | Lack of user acceptance |
| 7 | External factors |

# Stakeholder analysis

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| --- | --- | --- | --- |
| **Name** | **Position** | **Internal/External** | **Project Role** |
| **Mahmoud Mourad** | Project Manager | Internal | Plan, execute, control, and monitor the project. |
| **Local Editor A** | Local Editor | External | managing the review and publishing process and will be the main user of the system. |
| **Author B** | Author | External | submit articles for review and publication on the website. |
| **Sponsor** | Project sponsor | External | funds the project and is interested in the project's outcome. |
| **Team member A** | Developer team member | Internal | responsible for delivering the project, and stakeholders in this project. |

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| --- | --- | --- | --- |
| **Name** | **Level of Interest** | **Level of Influence** | **Potential Management Strategies** |
| **Local Editor** | High | High | Keep the editor informed and involved in all aspects of the project, seek their input and approval on key decisions, and ensure they have the necessary resources to fulfill their role effectively. |
| **Reviewers** | High | Medium | Clearly communicate expectations and deadlines, provide training and support, and actively solicit and incorporate feedback from reviewers. |
| **Authors** | Medium | Low | Provide clear guidelines and templates for authors, be responsive to their questions and concerns, and provide feedback on their articles in a timely manner. |
| **Developer** | Medium | High | Establish clear protocols for accessing and updating the HS Database, ensure the data is accurate and up-to-date, and actively communicate with the HS Database administrator to address any issues that arise. |
| **Data analyst** | Medium | Medium | Provide proper analysis for the project, communicate with the other team members to help structure a proper analysis. |

# Exhibits

* Project Plan: A detailed project plan that outlines the project scope, objectives, deliverables, and schedule, as well as the project team's roles and responsibilities.
* Requirements Document: A document that describes the system requirements in detail, including functional requirements, non-functional requirements, and acceptance criteria.
* Design Document: A document that describes the system's design, including information about the system architecture, data model, and user interface design.
* Budget Estimate: A document that describes the project budget, including the costs for development, hardware, training, and ongoing maintenance.
* Risk Management Plan: A document that describes the project risks and the strategies for mitigating or avoiding them.
* Test plans: A set of documents that specify the testing approach, test cases, and expected results for system testing and user acceptance testing.
* Change request log: A document that lists the changes requested to the project scope, schedule and budget and the decisions made by the project team and stakeholders.