Feasibility Study for Web Publishing System

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# Introduction/ Background

## Statement of work

This goal of the project will provide tools to assist in automating the article review and publishing process and maximize the editor productivity.

## Scope of Work:

For a local editor of a local historical organization, this software system will serve as a Web Publishing System. The system will satisfy the editor's needs while being simple to comprehend and use by maximizing the editor's productivity and job efficiency.

In order to publish articles to a public website, this system is created to expressly enable an editor to coordinate and communicate with a team of authors and reviewers. The program will make it easier for authors, reviewers, and the editor to communicate via email. To provide a consistent review process, preformatted reply forms are utilized at each step of the articles' journey through the system. The location of these forms can be customized using the application's maintenance options. A relational database with a list of Authors, Reviewers, and Articles is also part of the system. The work needs computers and internet to work on.

## Location of Work:

The work in this project will take place in the head office of RC company for solutions. All hardware and software needed in this project will be provided in the office. As communication in that way is much powerful and sonsistent.

## Period of Performance:

The work will start in 1/ 2/ 2023

The work will end in 1/ 12/ 2023

Work per week of each employee: 40 hours

Work will be performed in the office 5 days per week (40 hours per person) (Sunday to Thursday)

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|  | **Month 0** | **M 1** | **M 2** | **M 3** | **M 4** | **M 5** | **M 6** | **M 7** | **M 8** | … | **M 12** |
| **Project Documentation** |  |  |  |  |  |  |  |  |  |  |  |
| **Requirement Analysis** |  |  |  |  |  |  |  |  |  |  |  |
| **System Design** |  |  |  |  |  |  |  |  |  |  |  |
| **Implementation** |  |  |  |  |  |  |  |  |  |  |  |
| **Verification and Validation** |  |  |  |  |  |  |  |  |  |  |  |
| **Deployment** |  |  |  |  |  |  |  |  |  |  |  |
| **Operations and Maintenance** |  |  |  |  |  |  |  |  |  |  |  |

## Deliverables Schedule:

Requirements analysis – 1st month: A document contain detailed description to all features the system must have.

Design architecture – 2nd month: A document describing the components and specifications required to support the solution and ensure that the specific business and technical requirements of the design are satisfied.

User Interface – 3rd month: A graphical user interface of the web system.

Actual working version – 6th month: An actual working software with main functionalities.

User Manual – 7th month : A document describes all the system containing user guide and documentation of software.

Deployable web system – 8th month: A release of the final product.

## Applicable Standards:

The use of coding standards, which are guidelines describing best practices and the preferred styles to write code. The system abides by ministry laws.

## Acceptance Criteria:

The buyer ASU Watan Journal will approve the project to be considered successful. All checklist functionalities of the system will be checked if it works with nice performance in all stages.

Main functionalities checklist:

1. The Reader chooses to search by author name, category, or keyword.
2. The system displays the choices to the Reader.
3. The Reader selects the article desired.
4. The system presents the abstract of the article to the reader.
5. The Reader chooses to download the article.
6. The system provides the requested article.
7. Apply security measures. (Prevent unauthorized write/delete access)
8. Response time less than 2 second

## Special Requirements:

System must be usable to all journal staff and user friendly. The main screen should have search function and information about author. The reader can access the article via internet using search engine. The system needs desktop computers with CPU 2GHZ and 4GB RAM. The team need consultant to guide the team and one who worked before in a manual publish system.

# Business Objective

The business objective of this project is to have an automated web publishing system to replace manual system at ASU journal (the buyer). The system should make the process of writing and publishing easier and save the time.

# Current Situation and Problem/Opportunity Statement

The need to digital transformation of legacy operation systems all over the world. In Egypt many company and journal need to make its operations automated, and this system may be needed in all companies. So, it might appear competitions all over this year. The stage of publishing an article takes much time in manual manner so this system should automate the process and increase performance of the journal.

# Critical Assumption and Constraints

Assume that all the authors and reviewers have suitable PCs with the minimum requirement specified with a stable internet connection and trained enough to use these devices, the company have skilled developers with enough experience in this type of systems. The author/editor/reviewer expected to be internet literate and can use email and communicating through it. Assume that inflation rate is constant across the year to estimate the cost. Constrain designing and developing the website within the budget.

# Analysis of Option and Recommendation

There are options to manage this project such as waterfall model and agile. Mixing the agile idea with the waterfall model as existing product owner who have the idea what the system should do exactly with the team members in period days may be useful and save time and get the needed requirement fast and without loss in resources.

Consider different options of hosting server for databases.

# Preliminary Project Requirements

1. The computers have the minimum requirements to make the work done
2. Some developers must have knowledge of How to deal with relational database.
3. Developers must have Knowledge of setup a server
4. Developers must have knowledge of HTML/CSS/JavaScript
5. Developers should have knowledge of Tomcat tool
6. The license of operating system is active.

# Budget Estimate and Financial Analysis

The target budget to this project is 4.6 million expenses and 6 million as profit.

The maintenance cost is 800K.

The payback period is 6-7 months.

ROI is 123%.

# Schedule Estimate

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|  | **Month 0** | **Month 1** | **Month 2** | **Month 5** | **Month 7** | **Month 8** | **Month 12** |
| **Feasibility Study** |  |  |  |  |  |  |  |
| **Project Approval** |  |  |  |  |  |  |  |
| **Project Planning** |  |  |  |  |  |  |  |
| **Start of the project** |  |  |  |  |  |  |  |
| **Design is done** |  |  |  |  |  |  |  |
| **Implementation is done** |  |  |  |  |  |  |  |
| **Testing is Done** |  |  |  |  |  |  |  |
| **Deliver final release** |  |  |  |  |  |  |  |
| **End of the project** |  |  |  |  |  |  |  |

# Potential Risks

|  |  |
| --- | --- |
| **Ranking** | **Potential Risk** |
| 1 | Vague requirement |
| 2 | Bad estimations or inaccurate |
| 3 | Incorrect budget estimation |
| 4 | Bad profit income estimation |
| 5 | Inflation rate |
| 6 | Not availability of an expert |
| 7 | Timing is bad |
| 8 | Competitors appear recently |
| 9 | Server or internet problems |
| 10 | Staff availability |

# Stakeholder analysis

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Position** | **Internal/External** | **Project Role** | **Contact Information** |
| **Reda Mohsen** | Project Manager | Internal | Manager | 18p5141@eng.asu.edu.eg |
| **Eng. Selim Khedr** | Professional Consultant | External | Consultant | N/A |
| **Eng. Hazem Mahmoud** | Technical Lead | Internal | Technical Manager | h@gmail.com |
| **Eng. Youssef Radwan** | CEO | Internal | Supervisor | y@gmail.com |
| **Eng. Youssef Reda** | Sponsor | Internal/External | Sponsor of the project. | N/A |
| **Eng. Selim Ahmed** | Client/Project Owner | External | Owner of the Project being developed | N/A |
| N/A | Reader | External | End-User | N/A |
| N/A | Author | External | End-User | N/A |
| N/A | Editor | External | End-User | N/A |
| N/A | Reviewer | External | End-User | N/A |

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| --- | --- | --- | --- |
| **Name** | **Level of Interest** | **Level of Influence** | **Potential Management Strategies** |
| **Reda Mohsen** | High | High | Manage uniformly |
| **Eng. Selim Khedr** | Medium | Medium | Should be kept informed |
| **Eng. Hazem Mahmoud** | High | Medium | Manage closely |
| **Eng. Youssef Radwan** | High | High | Monitor and keep informed |
| **Eng. Youssef Reda** | Medium | Low | Should be kept informed |
| **Eng. Selim Ahmed** | High | High | Should be kept satisfied |
| **End-User** | Low | Low | No/Low information. |

# Exhibits

A picture containing graphical user interface

Description automatically generated