Baseline Document

System: WebCongress

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Software Configuration Management

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INTRODUCTION

This baseline document describes the fundamental aspects of the system called "WebCongress" intended for the management of a congress. The system will provide users with the possibility of consulting information about workshops and conferences, purchasing their tickets and registering for the events of their choice.

The main objective of this document is to present a clear basis for the requirements, analysis and design of the system, ensuring a structured and efficient development.

SYSTEM DESCRIPTION

The project involves the development of a website dedicated to the management of conferences. This site will be divided into two modules:

User module:

allows users to access detailed information about workshops and conferences, including schedules, specific locations and available seats. In addition, users will be able to purchase entrance passes to the conference, which will be of two types:

Free package: Limited access to some workshops and conferences.

Full package: Full access to all events.

Users who have purchased a pass will be able to register for the workshops or conferences of their choice, provided there are available seats. To purchase a pass, it is necessary to create an account on the website.

Administrator module

The system includes an administrator profile which can be accessed with administrator credentials. From this section, the content of the site can be managed, such as the data of speakers, events and registered users.

The system must allow the existence of multiple congresses, each with its own structure of events, workshops, speakers, and attendees. Administrators will have the

ability to create, edit, and delete congresses. When registering, users must select the congress they wish to attend and can participate in multiple events if they purchase the corresponding passes.

FUNTIONAL ANDO NON-FUNTIONAL REQUIREMENTS

In this section we present the functional and non-functional requirements of the system.

Code	Description	Type of requirement
RFU-001	Registration and authentication of users.	Functional requirement
RFU-002	Purchase of passes for the congress (free and complete).	Functional requirement
RFU-003	Registration for workshops or conferences, subject to availability of places.	Functional requirement
RFU-004	View information on workshops and conferences (name, description, time, place, place and speaker).	Functional requirement
RFU-005	Information on available packages.	Functional requirement
RFU-006	Speaker management: registration, editing and deletion of data.	Functional requirement
RFU-007	Event management: registration, editing and deletion of workshops and conferences.	Functional requirement

Code	Description	Type of requirement
RFU-008	View registered users, including emails and purchased packages.	Functional requirement
RFU-009	Top menu with the sections: Event, Packages, Workshops/Conferences and Buy Pass.	Functional requirement
Code	Description	Type of requirement
RNF-001	Intuitive and user-friendly design.	Non-functional requirement
RNF-002	Compatibility with modern browsers.	Non-functional requirement
RNF-003	Ability to manage up to multiple simultaneous users.	Non-functional requirement
RNF-004	Encryption of passwords and sensitive data.	Non-functional requirement
RNF-005	Prevention of attacks such as SQL injection	Non-functional requirement
RNF-006	24/7 access to the system.	Non-functional requirement
RNF-007		Non-functional requirement

Code	Description	Type of requirement
RFU-010	Creation of new congresses with relevant data	Functional requirement
RFU-011	Editing and deleting existing congresses	Functional requirement
RFU-012	Assignment of workshops, conferences, and speakers to specific congresses	Functional requirement
RFU-013	Consultation of events grouped by congress	Functional requirement
RFU-014	Selection of congress when registering or purchasing passes	Functional requirement

Code	Description	Type
RNF-008	Clear interface for congress selection and management	Non-Functional
RNF-009	Efficient data organization for multiple events	Non-Functional

REQUIREMENTS ANALYSIS

The system is designed to meet the needs of three main types of users divided into three modules:

Visitors:

- Check conference information.
- Create an account to purchase passes.

Attendees:

- Buy passes.
- Register for workshops or conferences.
- *Select the congress you will attend*

Administrators:

- Manage speaker and event data.
- Monitor registered user information.

- *Will manage the creation and organization of multiple congresses.*

The following priorities were identified:

High priority: User registration, purchase of passes, event registration, administrator administration of events, *creation, editing, and deletion of congresses, assignment of events and speakers to specific congresses*.

Medium priority: User review by administrator.

Low priority: Future optimizations and scalability.

SYSTEM DESIGN

The system will follow a client-server-based architecture. The frontend will be developed in React, while the backend will use Node with Express. The database will be MySQL to store information about users, events and speakers.

Main Components:

Frontend	Backend
Interface design for the navigation menu and different views of the site.	RESTful services to handle user operations, events, and administration.
User registration form and purchase of passes.	

Navigation Diagram

There will be a top menu that will connect the main sections:

Event	Packages	Workshops/Conferences	Buy Pass

General information about the conference.	Details of available passes.	List of all events	Process for acquiring a pass.

Administrator Profile

A control panel will be included for the administrator view that will contain the following:

Speaker management.	Event management.	Display of registered users.

A new panel for congress management will be added, accessible only to administrators. Users will be able to select the congress they wish to attend from a main screen displaying grouped events.

Cost, Time, and Resource Estimation

To estimate the cost, time, and resources required for the development of the "WebCongress" system with support for multiple congresses, the following considerations are made:

Cost Estimate

The estimated development cost is $ 13000 USD, including design, development, testing, and deployment.

Team Requirements

A team of 4 programmers is required:

- 1 Frontend Developer (mid), full payment: $2800
- 1 Backend Developer (mid) full payment: $3000
- 1 Database Administrator (junior) full payment: $1500

- 1 Full-Stack Developer (for system integration and testing, MID) full payment: $2700

Time Estimate

The estimated development time is 5 months, distributed as follows:

Month	Frontend Developer	Backend Developer	Database Administrator	Full-Stack Developer
1	UI/UX Design	API Planning	Database Design	System Architecture Planning
2	Frontend Development	Backend Development	Data Structuring	API Integration
3	Frontend Development	Backend Development	Database Optimization	Module Testing
4	Feature Enhancement	Backend Optimization	Data Security Implementation	System Integration
5	Final UI Improvements and Bug Fixing	Final Backend Adjustments and Deployment	Database Testing and Final Adjustments	Comprehensive Testing and Deployment