

Decision Making Process for WebCongress

Student: Roberto Carlos Gutierrez Constantino

Teacher: Dr. Omar Ali Zatarain Durán

Software Configuration Management

To ensure an efficient and structured decision-making process in the WebCongress system, a decision council composed of key stakeholders will be involved. The council will oversee major decisions regarding product development, finance, human resources, and quality assurance.

Members

Responsibility in Decision-Making
Defines strategic vision, business
alignment, and final approvals.
Ensures project timelines, task
prioritization, and risk management.
Provides technical expertise and evaluates
feasibility of solutions.
Ensures product quality, testing strategies,
and compliance.
Manages resource allocation, hiring, and
team productivity.
Oversees budget, financial constraints, and
cost optimization.

Decisions are categorized based on impac and responsibility

Operational Decisions (Handled by the Project Team)

Made by: Software Engineer, QA, and HR

Examples:

- Task distribution
- Code reviews and bug fixes
- Test case approvals
- Developer assignments

Tactical Decisions (Handled by the Project Manager)

Made by: Project Manager, Software Engineer, QA Examples:

- Feature prioritization
- Development timeline adjustments
- Resource reallocation
- Risk management strategies

Strategic Decisions (Handled by the Decision Council)

Made by: CEO, Financial Department, Project Manager Examples:

- Major budget adjustments
- Change in technology stack
- Hiring additional resources
- Deciding the final launch timeline

Classification of requirements in the face of changes

- If modifying the requirement does not affect the rest of the system, it will be a "low" risk state.
- If modifying the requirement affects part of the system but it is solvable, it will be a "medium" risk status.
- If changing the requirement affects the entire system, it will be a critical state.

Code	Description	Type of requirement	Status in case
			of changes
RFU-001	Registration and	Functional	Critical
	authentication of users.	requirement	

RFU-002	Purchase of passes for the congress (free and	Functional requirement	Medium
	complete).	,	
RFU-003	Registration for	Functional	Medium
	workshops or	requirement	
	conferences, subject to	·	
	availability of places.		
RFU-004	View information on	Functional	Low
	workshops and	requirement	
	conferences (name,		
	description, time, place,		
	place and speaker).		
RFU-005	Information on available	Functional	Low
	packages.	requirement	
RFU-006	Speaker management:	Functional	Medium
	registration, editing and	requirement	
	deletion of data.		
RFU-007	Event management:	Functional	Critical
	registration, editing and	requirement	
	deletion of workshops		
	and conferences.		
RFU-008	View registered users,	Functional	Medium
	including emails and	requirement	
	purchased packages.		
RFU-009	Top menu with the	Functional	Low
	sections: Event,	requirement	
	Packages,		
	Workshops/Conferences		
	and Buy Pass.		
Code	Description	Type of requirement	
RNF-001	Intuitive and user-	Non-functional	Low
	friendly design.	requirement	
RNF-002	Compatibility with	Non-functional	Low
	modern browsers.	requirement	
RNF-003	Ability to manage up to	Non-functional	Medium
	multiple simultaneous	requirement	
	users.		
RNF-004	Encryption of passwords	Non-functional	Critical
	and sensitive data.	requirement	

RNF-005	Prevention of attacks such as SQL injection	Non-functional requirement	Critical
RNF-006	24/7 access to the	Non-functional	Medium
	system.	requirement	

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

Code	Description	Туре	
RNF-008	Clear interface for congress selection and management	Non-Functional	Low

Decision making

To ensure structured decision making regarding changes to the WebCongress system, the following criteria are established based on time, cost and available resources, which will determine whether a change request is approved or rejected.

Evaluation Criteria for Change Requests

Factor	Decision Criterion
Impact over time	Changes that extend development by more
	than 1 week will be rejected. Minor
	changes affecting 1-4 days require approval
	from the Project Manager.
Impact on Cost	Changes that increase costs by more than
	15% (\$1,950 USD) will be rejected. If the
	increase is between 5% and 15% (\$650 -
	\$1,950 USD), approval from the Finance
	Department and the Project Manager will
	be required.
Personnel Resources	If the change requires hiring additional
	staff, it will be rejected. If the current team
	can handle the change within their
	workload, it may proceed.

Decision-Making Process According to Severity of Change

1.- Low Impact Changes (Immediate Approval)

Approved by: Project Manager & Software Engineer

Accepted if:

- Does not extend delivery time.
- Cost increase is less than 5% (\$650 USD).
- Does not require additional staff.

Examples: UI/UX improvements, minor bug fixes, text modifications.

2.- Medium Impact Changes (Require Approval)

Approved by: Project Manager, Software Engineer, and Finance Department

Accepted if:

- Extends development by a maximum of 1 week.
- Cost increase is between 5% and 15% (\$650 \$1,950 USD).
- Can be handled by current staff.

Examples: Performance optimization, minor API modifications, data structure improvements.

3.- Critical Changes (Decision Board Review)

Approved by: CEO, Project Manager, Software Engineer, QA, HR, Finance Department Only accepted if:

- Extends development by a maximum of 2 weeks AND is strategically important.
- Cost increase is between 15% and 25% (\$1,950 \$3,250 USD) and funding is available.
- Long-term benefits are justified as outweighing immediate costs.

Rejected if:

- Extends development by more than 2 weeks.
- Increases costs by more than 25% (\$3,250 USD).
- Requires additional hiring outside of budget.

Examples: Database migration, core architecture change, redesign of entire functionality.

SWOT analysis

STRENGHTS

- Reduce manual workload in conference management
- Scalable and modular system
- Allows users to register and purchase passes at any time.

WEAKNESSES

- High initial development cost
- Dependency on a web server
- Use of the system may require initial training.

OPPORTUNITIES

- Integration with online payment platforms
- Data collection and management
- Growth of online events

THREATS

- Competition with established platforms
- Resistance to change by organizers:
- Cost-limited scalability