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AWA – Arch Climbing Wall Web Application Supplementary Specification

Version <1.0>

Revision History

Date	Version	Description	Author
<19/03/2018>	<0.1>	First iteration of the document	Mădălina Şinca
<26/03/2018>	<0.2>	Small revisions	Mădălina Şinca

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1. Introduction

The Supplementary Specification provides an overview of the entire document. It includes the purpose, scope, definitions, acronyms, abbreviations, references, and overview of this Supplementary Specification. It also captures the system requirements that are not readily captured in the use cases of the use-case model. Such requirements include:

1. Legal and regulatory requirements, including application standards.

2. Quality attributes of the system to be built, including usability, reliability, performance, and supportability requirements.

3. Other requirements such as operating systems and environments, compatibility requirements, and design constraints.

2. Non-functional Requirements

2.1 Availability

96%. AWA shall be available 24 hours a day, 7 days a week. There shall be no more than 4% down time.

2.2 Performance

The performance characteristics of the system are outlined in this section.

2.2.1 Simultaneous Users

The system shall support up to 2000 simultaneous users against the central database at any given time.

2.2.2 Response Time

2.2.2.1 AWA shall add no more than 5 seconds of perceivable overhead time to any necessary web and database transaction time.

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2.2.2.2 In the event the complete AWA transaction requires longer than 5 seconds, the system shall display an informational messages requesting they continue waiting for a response.

2.2.2.3 In the event the complete AWA transaction takes more than twice the expected duration, derived from empirical data (system characterization), for a given type of transaction, the AWA will inform the user that the transaction has failed.

1. **Transaction Response Time**

AWA must be able to complete 80% of all transactions within 1 minute.

2.3 Security

The security softgoal is divided into confidentially, integrity, and availability. To cover confidentiality it's important to achieve authentication, users are required to log into the system by providing username and with strong password, it also provides site key and account lockdown to prevent unauthorized users. Integrity covers completeness such as data validation, accuracy, and consistency. And availability provides protection against DOS attack relays on the firewall.

2.3.1 AWA shall utilize HTTPS communication to ensure data confidentiality.

2.3.4 Users shall be required to log into the system for all operations except the operations on the login page.

2.3.5 The system shall restrict the user's operation within its user role.

2.4 Testability

- Have the developers test multiple features in pre-production as well as post production from both the perspective of a general user and a website administrator;
- Test the application on a small sample of users, in the first month of release. Eventually reward their feedback with various vouchers at the Arch Climbing Wall etc.

2.5 Usability

This section lists all of those requirements that relate to, or affect, the usability of the system.

1. **Chrome and Firefox Compliance**

AWA shall be compatible with both Chrome and Firefox web browsers.

2. **Design for Ease-of-Use**

The user interface of AWA shall be designed for ease-of-use and shall be appropriate for a computer-literate user community with no additional training on the System.

3. **Human Help**

If any problems arise, administrators or owners can be reached via the provided contact detail. They might probably only be available during a certain specified time interval.

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3. Design Constraints

3.1 Software Limitations

  The AWA software limitations are defined by the limitations of its support web server and database server., namely having a browser installed (Google Crome, Mozilla Firefox, Opera etc), having an OS over W95 or any Linux machine;

3.2 Hardware Limitations

- **Processor (CPU):**   Intel Core i3-3xxx (or equivalent) or higher;

- **Operating System:**   Microsoft Windows XP, 7, 8, 10, any Linux machine etc.;

- **Memory:**   4GB RAM;

- **Monitor**:   13 inch LCD, 720p;

- **Graphics/GPU:**   AMD Radeon R7 370 or Nvidia GTX 950 or higher;