SRS – Software Requirements Specification: WebApplicaiton

BlankFactor

Contents

Document history

Ver.	Date	Resp.	Description
1.0	2020-12-12	MH	First baseline version

1 Introduction

This document describes the requirements for the “WebApplication”, which is a system with log-in functionality on a web-server solution. The intention is that the system should provide basic authentication functionality, and should later be extended into a system with more useful functionality, such as a time reporting system.

The system is developed by BlankFactor dev team.

2 Reference documents

No reference documents in this version.

3 Background and goals

3.1 Main goals

The main goal of the system is to provide a log-in and log-out functionality that can be used as a basis when more advanced systems, like time-reporting systems, are developed on a IIS-server.

3.2 Actors and their objectives

The following main actors use the system

User A user can login to the system and logout of the system. The main objectives of users are to able to login and logout easily.

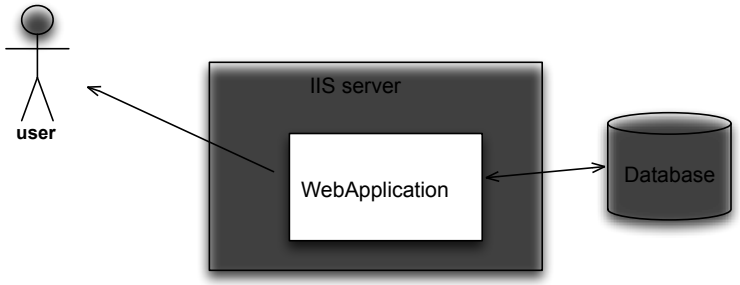

Figure 1: Context diagram

4 Terminology

functionality selection page	a page with basic functionality of the system, only to be shown to logged in users.
login-state	information whether a user of the system is logged in or logged out.
password	a password used for authentication.
server session	ISS server entity for storing information in user sessions.
username	The name by which the user is known to the system.

5 Context diagram

A context diagram is displayed in Figure 1.

6 Functional requirements

6.1 Login and logout

Requirement 6.1.1. For one user the login-state can be either logged in or not logged in.

Requirement 6.1.2. The system shall store the login-state in a server session.

Scenario 6.1.1. User login Precondition:
The user is not logged in.

1. The user accesses the system.
2. The user is asked to provide username and password on a log-in page.
3. The user provides a correct username and password.
4. The user is logged in and a functionality page is shown

Requirement 6.1.3. Scenario 6.1.1 should be supported by the system.

Scenario 6.1.2. User logout Precondition:
The user is logged in.

1. The user accesses the system.
2. The user is presented to a page that includes a logout link.
3. The user requests to be logged out.

4. The user is logged out and informed about this through on the next page that is displayed.

Requirement 6.1.4. Scenario 6.1.2 should be supported by the system.

Scenario 6.1.3. Failed user login Precondition:
The user is not logged in.

1. The user accesses the system.
2. The user is asked to provide a user name and password on a log-in page.
3. The user provides a user name and password that is not registered in thedatabase.
4. The user is not logged in and an error message is shown. The user is againasked to provide user name and password

Requirement 6.1.5. Scenario 6.1.3 should be supported by the system.

Requirement 6.1.6. When a user reaches the system and is not logged in he/she should be asked to provide a username and a password. No other information should be provided to the user.

Requirement 6.1.7. When a user submits a username and a password they should be compared to the list of users and if the user should be granted access to the system the server-state should be changed to "logged in" and the functionality page shown.

Requirement 6.1.8. All pages shown to a logged in user should include a log out functionality, e.g. a button for logging out of the system.

Requirement 6.1.9. If a logged in user is inactive for longer than 20 minutes he/she should be logged out and required to log in again before continuing using the system.

Requirement 6.2.0. If a user click on remember me checkbox before login, he/she should be logged in and next time the user tries to login the user should not fill username and password.

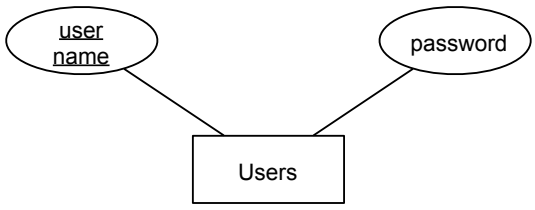

Figure 2: ER diagram

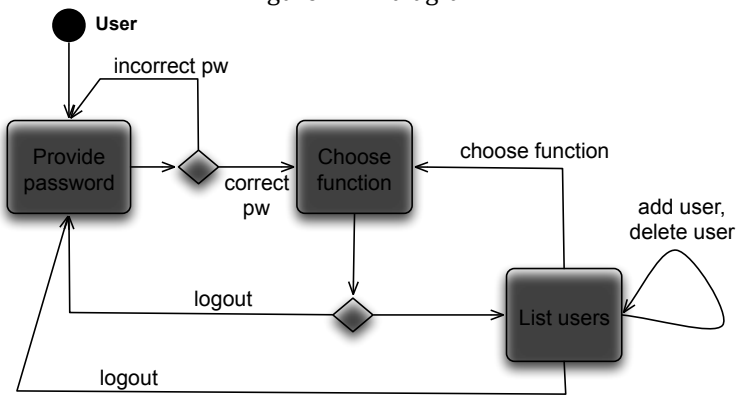

Figure 3: Activity diagram showing the most important sequences for an administrator

6.2 Data

Requirement 6.2.1. User names should consist of 5-10 characters, ascii (decimal) values 48-57, 65-90, and 97-122 allowed.

Requirement 6.2.2. User names should be unique for each user.

Requirement 6.2.3. Passwords should consist of 6 characters, ascii (decimal) values 97-122 allowed.

Requirement 6.2.4. The data model for storing information about users is as displayed in Figure 2.

6.4 General requirements

Requirement 6.4.1. The system should be able to handle and detect incorrect input (based on Section 6.2). No type of incorrect input should be able to crash the system or corrupt the data in the system.

7 Quality requirements

7.1 Maintainability

Requirement 7.1.1. Knowledge corresponding to the knowledge goals of EDA016, and a basic knowledge of SQL, should be sufficient in order to understand, maintain, and further develop the system.

7.2 Performance

Requirement 7.2.1. When the system is used the, response to any request should in at least 95% of all cases be given within 1.0 s.

8 Project requirements

8.1 Development environment

Requirement 8.1.1. The system should be developed for the IIS server.

Requirement 8.1.2. The system should be developed in C# .NET.

Requirement 8.1.3. A MSSQL database should be used by the BlankFactor to store data that should be saved between sessions.