Software Requirements Specification

FANS OF ART

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**1. Introduction**

This section gives a scope description and overview of everything included in this SRS document. Also, the purpose for this document is described and a list of abbreviations and definitions is provided.

**1.1 Purpose**

It offers a complete declaration for the development of system. It will also explain system constraints, interface. This document is primarily intended to be proposed to a customer for its approval and a reference for developing the first version of the system for the development team.

**1.2 Scope**

Web application will allow you to manage the activities of a club for art enthusiasts. It should be free or paid to use from any Web browser that can be used on Windows operating systems.

Furthermore, web application needs Internet connection to display results. All system information is maintained in a database, which is located on a server. Web application also has capability can representing both summary and detailed information about the art.

**1.3 Definitions, acronyms, and abbreviations**

**Table 1 – Definitions**

|  |  |
| --- | --- |
| **Term** | **Definition** |
| Guest | Someone who can preview the site without interacting with elements of the site |
| User | Someone who can use the site with some limitation of posting or selling art |
| Passionate about art | Someone who can use the site without any limitation |
| Moderator/Mod | Someone who can use the site without any limitation and can add minor restriction over users |
| Administrator/Admin | System Administrator who is given specific permission for managing, controlling the system and update events |
| Sales Manager | A assigned admin that have the responsibility to help Passionate about art with selling art receive money and the buyer to receive the art |
| Web portal | A web portal is a specially designed [website](https://en.wikipedia.org/wiki/Website) that brings information from diverse sources, like [emails](https://en.wikipedia.org/wiki/Email), [online forums](https://en.wikipedia.org/wiki/Internet_forum) and [search engines](https://en.wikipedia.org/wiki/Web_search_engine), together in a uniform way |
| Broadcast | Broadcasting is the [distribution](https://en.wikipedia.org/wiki/Distribution_(business)) of [audio](https://en.wikipedia.org/wiki/Sound) or video content to a dispersed [audience](https://en.wikipedia.org/wiki/Audience) via any electronic [mass communications medium](https://en.wikipedia.org/wiki/Medium_(communication)), but typically one using the [electromagnetic spectrum](https://en.wikipedia.org/wiki/Electromagnetic_spectrum) ([radio waves](https://en.wikipedia.org/wiki/Radio_wave)), in a [one-to-many](https://en.wiktionary.org/wiki/one-to-many) model |

**1.4 References**

Web portal definition <https://en.wikipedia.org/wiki/Web_portal>

Broadcast definition https://en.wikipedia.org/wiki/Broadcasting

**1.5 Overview**

The rest of this document includes two chapters. The first one provides an overview of the system functionality and system interaction with other systems. This chapter also introduces different types of stakeholders and their interaction with the system. Further, the chapter also mentions the system constraints and assumptions about the product.

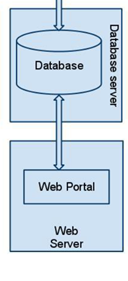
The second chapter provides the requirements specification in detailed terms and a description of the different system interfaces. Different specification techniques are used in order to specify the requirements more precisely for different audiences.

**2. Overall description**

This section will give an overview of the whole system. The system will be explained in its context to show how the system interacts with other systems and introduce the basic functionality of it. It will also describe what type of stakeholders that will use the system and what functionality is available for each type. At last, the constraints and assumptions for the system will be presented.

**2.1 Product perspective**

This system will consist of one part: web portal. The web portal will be used for managing the information about the distributed computer system for managing the activity a club for art lover and the system as a whole.



**Figure 1 - Block diagram**

Since this is a data-centric product it will need somewhere to store the data. For that, a database will be used. The web portal will communicate with the database, however in slightly different ways. The web portal will also add and modify data. All of the database communication will go over the Internet.

**2.2 Product functions**

The web portal will provide functionality to manage the system and the art lovers information. It will also provide information about the system, for example showing when a new painting appears on a certain page, when quotations change and when new contests appear or their rules change.

**2.3 User characteristics**

There are three types of users that interact with the system: admins ,art enthusiasts and visitors . Each of these three types of users has different use of the system so each of them has their own requirements.

The admins will only interact with the web-portal.They have the right to delete /add new members in different categories on the forum The admins can delete the forum ranks of certain users, create or approve certain events related to art, delete inactive accounts or because of non-observance of the rules, changes the fees for art enthusiasts.

The art enthusiasts(user) will have the opportunity to create/edit events and select the invited memebers , reserve a resource for that event and view the events where they were invited.They have a discount price for the resource/day compared to guests

The guest can reserve a resource by paying the full price per resource/day ,no discount will be added.

**2.4 Constraints**

The web application is constrained by the internet connection.Since the application fetches data from the database over the Internet, it is crucial that there is an Internet connection for the application to function

The web portal will be constrained by the capacity of the database. Since the database may be forced to queue incoming requests and therefore increase the time it takes to fetch data.

**2.5 Assumptions and dependencies**

One assumption is that it will always need an internet connection.If it does not have a stable internet connection ,whether is cable internet, wireless or broadcast . The users need to have one to view the web application , there may be a scenario where it can not be used as intended.

**2.6 Apportioning of requirements**

N/A

**3. Specific requirements**

This section contains all of the functional and quality requirements of the system. It gives a detailed description of the system and all its features.

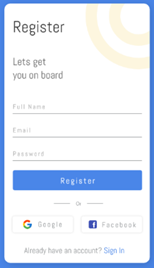
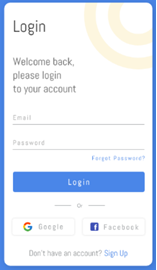
**3.1 External interface Requirements**

This section provides a detailed description of all system features inputs and outputs. It also provides a description of the software and communication interfaces.

**3.1.1 User interfaces**

A first-time user of the web application should see the login page when opening the application, see Figure 2. If the user has not registered, he should be able to do so on the login page.

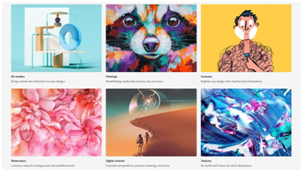
If the user is not a first-time user, he/she should be able to see the search page directly when the application is opened, see Figure 3. Here the user chooses the type of search he/she wants to conduct.



**Figure 2 - Login page Figure 3 – Register page**

Figure 4 shows the search view. When a user searches for something, this view should be the default one. Sort header allows the user to sort the results by name and type of painting. Each result item includes painting information.

Figure 5 is the representation of the page where art enthusiasts can search for consoles and the dates on which they can appear, or they can look for data about a contest that has ended.



**Figure 4 – search**  **Figure 5 – Result after searching**

**3.1.2 Hardware interfaces**

N/A

**3.1.3 Software interfaces**

The communication between the database and the web portal consists of operation concerning both reading and modifying the data

**3.1.4 Communications interfaces**

The communication between the different parts of the system is important since they depend on each other. However, in what way the communication is achieved is not important for the system and is therefore handled by the underlying operating systems for the web portal.

**3.2 Functional requirements**

This section includes the requirements that specify all the fundamental actions of the software system.

**3.2.1 User Class 1 - The guest**

**3.2.1.1 Functional requirement 1.1**

**ID: FR1**

TITLE: Guest registration

DESC: Given that a guest has entered the web application and wants to participate in review the paintings, they have to provide user-name, password and email address.

RAT: In order for a user to register.

DEP: None

**3.2.1.2 Functional requirement 1.2**

**ID: FR2**

TITLE: Reserve resource.

DESC:For each reserved resource it will be retained when it is available and when it is already reserved.

RAT: In order for the guest to know when the resource is available.

DEP: FR1

**3.2.1.3 Functional requirement 1.3**

**ID: FR3**

TITLE: Availability resource

DESC: It will be possible for the gurst to view the reservation calendar of a certain resource

RAT: In order for the guest to check availability of the resource.

DEP: None.

**3.2.1.4 Functional requirement 1.4**

**ID: FR4**

TITLE: Web application - Related resources search

DESC: A guest should be able to conduct a search by providing for eq: either paintings name, events description, event address or events date in the search field. The result is displayed in a list view by default.

A guest should be able to see all the resources available

RAT: In order for a guest to search through the related resoures search.

DEP: FR2

**3.2.1.5 Functional requirement 1.5**

**ID: FR5**

TITLE: Resources Management

DESC: A resource can be reserved for an event only if it is not reserved for another event during that time.

RAT: In order to manage the resources.

DEP: FR3

**3.2.1.6 Functional requirement 1.6**

**ID: FR6**

TITLE: Plan the reservation

DESC: For each new reservation, the resource will become unavailable for other reservations one day before the event and one after the event.

RAT: In order resources to be planed.

DEP: FR3

**3.2.1.7 Functional requirement 1.7**

**ID: FR7**

TITLE: Reserve resource.

DESC:For each reserved resource it will be retained when it is available and when it is already reserved.

RAT: In order for the guest to know when the resource is available.

DEP: FR3,FR6

**3.2.1.8 Functional requirement 1.8**

**ID: FR8**

TITLE: Web application - Related resources search.

DESC: A guest should be able to conduct a search by providing for eq: either paintings name, events description, event address or events date in the search field. The result is displayed in a list view by default.

A guest should be able to see all the resources available

RAT: In order for a guest to search through the related resoures search.

DEP: None

**3.2.1.9 Functional requirement 1.9**

**ID: FR9**

TITLE: Web application - Search

DESC: Given that a guest is logged in, according to several search option. The search should be able to search for resources There should also be a free-text search option.

RAT: In order for a guest to search.

DEP: None

**3.2.1.10 Functional requirement 1.10**

**ID: FR10**

TITLE: Web application - Profile page

DESC: On the web application, a guest should have a profile page. On the profile page a guest can edit his/her information, which includes e-mail address and phone number.

RAT: In order for a guest to have a profile page on the web application.

DEP: FR1

**3.2.2 User Class 2 Art enthusiasts(User)**

**3.2.2.1 Functional requirement 2.1**

**ID: FR11**

**Feature: Create an account**

In order to create an account

An art enthusiast

Should register on the web-portal

**Scenario: Required information for registration**

Given the art enthusiasts wants to create an account

And the art enthusiasts does not have an account

When the art enthusiasts registers on the web-portal by providing user-name

And password

And address

And e-mail address

And phone number

Then the art enthusiasts should be able to apply for verification

**Scenario: Full information for registration**

Given the art enthusiasts wants to create an account

And the art enthusiasts does not have an account

When the art enthusiasts registers on the web-portal by providing username

And password

And address

And e-mail address

And phone number

Then the art enthusiasts should be able to apply for verification

**Scenario: Confirmed registration**

Given the art enthusiasts has applied for verification

And has not received a confirmation e-mail after registration

When the art enthusiasts receives a confirmation e-mail

Then the art enthusiasts should be able to log in

**3.2.2.2 Functional requirement 2.2**

**ID: FR12**

**Feature: Art enthusiasts log-in**

In order to use the system

An art enthusiasts

Should be logged in to the web-portal

**Scenario: Successful log-in**

Given the art enthusiasts wants to log in

When the art enthusiasts logs in with his/her account

Then the art enthusiasts should be logged in as an art enthusiast

**Scenario: Retrieve password**

Given the art enthusiasts wants to log in

And has lost the password

When the art enthusiasts enters his/her email address in the “Retrieve password” form

And submits the form

Then the art enthusiasts should receive an email containing the password

**3.2.2.3 Functional requirement 2.3**

**ID: FR13**

**Feature: Manage information**

In order to manage information

An art enthusiasts

Should be logged in to the web-portal

**Scenario: Show fields for managing information**

Given the art enthusiasts is logged in

When the art enthusiasts wants to manage information

Then the art enthusiasts should be able to manage information in a form

**Scenario: Filling in mandatory fields**

Given the art enthusiasts wants to fill in the mandatory fields of the form

When the art enthusiasts provides average price

And address

And e-mail address

And phone number

And resource name

Then the art enthusiasts has filled the mandatory fields of the form

**Scenario: Adding information with mandatory fields**

Given the art enthusiasts has filled in the mandatory fields of the form When the art enthusiasts submits the form

Then the information about the event should be added

**Scenario: Adding information with mandatory and optional fields**

Given the art enthusiasts has filled in the mandatory fields of the form

And filled in one or more optional fields of the form

When the art enthusiasts submits the form

Then the information about the event should be added

**Scenario: Deleting information**

Given the art enthusiasts is logged in

And information exists

When the art enthusiasts deletes information

Then the information should be deleted

**Scenario: Editing information**

Given the art enthusiasts is logged in

And information exists

When the art enthusiasts edits information

Then the information should be edited

**3.2.2.4 Functional requirement 2.4**

**ID: FR14**

**Feature: Manage resources**

In order to manage information

An art enthusiasts

Should be logged in to the web-portal

**Scenario: Show registered resources**

Given the art enthusiasts is logged in

When the art enthusiasts wants to manage resources

Then the art enthusiasts should be able to manage resources in a form

**Scenario: Filling in mandatory fields**

Given the art enthusiasts wants to fill in the mandatory fields of the form

When the art enthusiasts provides average price

And address

And e-mail address

And phone number

And resource name

Then the art enthusiasts has filled the mandatory fields of the form

**Scenario: Adding resources with mandatory fields**

Given the art enthusiasts has filled in the mandatory fields of the form

When the art enthusiasts submits the form

Then the information about the resource should be added

**Scenario: Adding resources with mandatory and optional fields**

Given the art enthusiasts has filled in the mandatory fields of the form

And filled in one or more optional fields of the form

When the art enthusiasts submits the form

Then the information about the resource should be added

**Scenario: Deleting resources**

Given the art enthusiasts is logged in

And information exists

When the art enthusiasts deletes information

Then the resource should be deleted

**Scenario: Editing resources**

Given the art enthusiasts is logged in

And resources exists

When the art enthusiasts edits resources

Then the resources should be edited

**3.2.2.5 Functional requirement 2.5**

**ID: FR15**

**Feature Art enthusiasts - Selecting preferred language on the web-portal**

In order to understand the web-portal

An art enthusiasts

Should be able to select a preferred language for the web-portal

**Scenario: Select English as preferred language**

Given the art enthusiasts wants to select a preferred language

When the art enthusiasts selects English as a new language

Then the web-portal will show all text in English

**Scenario: Select German as preferred language**

Given the art enthusiasts wants to select a preferred language

When the art enthusiasts selects German as a new language

Then the web-portal will show all text in German

**Scenario: Select French as preferred language**

Given the art enthusiasts wants to select a preferred language

When the art enthusiasts selects French as a new language

Then the web-portal will show all text in French

**Scenario: Select Turkish as preferred language**

Given the art enthusiasts wants to select a preferred language

When the art enthusiasts selects Spanish as a new language

Then the web-portal will show all text in Turkish

**3.2.3 User Class 3 - Administrator**

***3.2.3.1 Functional requirement 3.1***

**ID: FR1**

**Feature: Administrator log in**

In order to administer the system

An administrator

Should be logged in to the web-portal

**Scenario: Successful log-in**

Given the administrator wants to log in

When the administrator logs in with an administrator account Then the administrator should be logged in as an administrator

***3.2.3.2 Functional requirement 3.2***

**ID: FR2**

**Feature: Verify the users**

In order to allow a user to use the system

An administrator

Should be able to verify the user

**Scenario: Verify a user**

Given the administrator is logged in

When the administrator verifies a user

Then the user should be able to log in

**Scenario: Reject a user**

Given the administrator is logged in

When the administrator rejects a user

Then the user should not be able to log in

And the user should be notified by a rejection email

***3.2.3.3 Functional requirement 3.3***

**ID: FR3**

**Feature: Manage resources**

In order to have a list of resources

An administrator

Should be able to manage the resource

**Scenario: Add a new resource**

Given the administrator is logged in

When the administrator creates a new resource

Then the new resource should be added to the list of resources

**Scenario: Editing an existing resource**

Given the administrator is logged in

When the administrator edits an existing resource

Then the resource should be updated in the list of resources

**Scenario: Delete a resource**

Given the administrator is logged in

When the administrator deletes a resource

Then the deleted resource should be removed from the list of resources

***3.2.3.4 Functional requirement 3.4***

**ID: FR4**

**Feature: Manage members**

In order to have a list of members

An administrator

Should be able to manage the members

**Scenario: Add a new member**

Given the administrator is logged in

When the administrator creates a new member

Then the new member should be added to the list of members

**Scenario: Editing an existing member**

Given the administrator is logged in

When the administrator edits an existing member

Then the member should be updated in the list of members

**Scenario: Delete a member**

Given the administrator is logged in

When the administrator deletes a member

Then the deleted member should be removed from the list of members

***3.2.3.5 Functional requirement 3.5***

**ID: FR5**

**Feature: Manage contribution payments**

In order to have a list of contribution payments

An administrator

Should be able to manage the contribution payments

**Scenario: Add a new contribution payment**

Given the administrator is logged in

When the administrator creates a new contribution payment

Then the new contribution payment should be added to the list of contribution payment

**Scenario: Editing an existing** contribution payment

Given the administrator is logged in

When the administrator edits an existing contribution payment

Then the contribution payment be updated in the list of contribution payment

**Scenario: Delete a** contribution payment

Given the administrator is logged in

When the administrator deletes a contribution payment

Then the deleted contribution payment should be removed from the list of contribution payment

***3.2.3.6 Functional requirement 3.6***

**ID: FR6**

**Feature: Manage users**

In order to keep track of the users

An administrator

Should be able to manage the users

**Scenario: Edit an existing user’s information**

Given the administrator is logged in

When the administrator edits an existing user

Then the user information should be updated

And the user should be notified by a email with the updated informations

**Scenario: Delete/Inactivate an existing user**

Given the administrator is logged in

When the administrator deletes an existing user

Then the user should be deleted

And the user should be notified by a email of information that the account is deleted/is no longer available

***3.2.3.7 Functional requirement 3.7***

**ID: FR7**

**Feature: Administrator - Adding preferred language on the web-portal**

In order to understand the web-portal

An administrator

Should be able to select add preferred language for the web-portal

**Scenario: Add English as preferred language**

Given the administrator wants to select a preferred language

When the administrator selects English as a new language

Then the web-portal will show all text in English

**Scenario: Add German as preferred language**

Given the administrator wants to select a preferred language

When the administrator selects Swedish as a new language

Then the web-portal will show all text in Swedish

**Scenario: Add French as preferred language**

Given the administrator wants to select a preferred language

When the administrator selects French as a new language

Then the web-portal will show all text in French

**Scenario: Add Turkish as preferred language**

Given the administrator wants to select a preferred language

When the administrator selects Spanish as a new language

Then the web-portal will show all text in Spanish

**3.3 Performance requirements**

The requirements in this section provide a detailed specification of the user interaction with the software and measurements placed on the system performance.

***3.3.1 Prominent search feature***

**ID: QR1**

TITLE: Prominent search feature

DESC: The search feature should be prominent and easy to find for the user.

RAT: In order to for a user to find the search feature easily.

DEP: none

***3.3.2 Usage of the search feature***

**ID: QR2**

TITLE: Usage of the search feature

DESC: The search option should be evident, simple and easy to understand.

RAT: In order to for a user to perform a search easily.

DEP: none

***3.3.3 Usage of the result in the list view***

**ID: QR3**

TITLE: Usage of the result in the list view

DESC: The results displayed in the list view should be user friendly and easy to understand. Selecting an element in the result list should only take with a number as small as possible of clicks (1-5).

RAT: In order to for a user to use the list view easily.

DEP: none

***3.3.4 Usage of the information link***

**ID: QR4**

TITLE: Usage of the information link

DESC: The information link should be prominent and it should be evident that it is a usable link.

Selecting the information link should only take one click.

RAT: In order to for a user to use the information link easily.

DEP: none

***3.3.5 Response time***

**ID: QR5**

TAG: ResponseTime

GIST: The fastness of the search

SCALE: The response time of a search

MUST: No more than 5 seconds 100% of the time.

WISH: No more than 2 second 100% of the time.

**3.4 Design constraints**

N/A

**3.5 Software system attributes**

The requirements in this section specify the required reliability, availability, security and maintainability of the software system.

***3.5.1 Reliability***

**ID: QR6**

TAG: SystemReliability

GIST: The reliability of the system.

SCALE: The reliability that the system gives the right result on a search.

MUST: More than 90% of the searches.

PLAN: More than 97% of the searches.

WISH: 100% of the searches.

***3.5.2 Availability***

**ID: QR7**

TAG: SystemAvailability

GIST: The availability of the system when it is used.

SCALE: The average system availability (not considering network failing).

MUST: More than 85% of the time.

PLAN: More than 90% of the time.

WISH: 100% of the time.

**ID: QR8**

TITLE: Internet Connection

DESC: The web application should be connected to the Internet.

RAT: In order for the application to communicate with the database.

DEP: none

***3.5.3 Security***

**ID: QR9**

TAG: CommunicationSecurity

GIST: Security of the communication between the system and server.

SCALE: The messages should be encrypted for log-in communications, so others cannot get user-name and password from those messages.

MUST: 100% of the Communication Messages in the communication of a log-in session should be encrypted.

Communication Messages: Defined: Every exchanged of information between client and server.

**ID: QR10**

TAG: AdminLoginAccountSecurity

GIST: Security of accounts.

SCALE: If an admin tries to log in to the web portal with a wrong password (3 attempts) then the admin should not be logged in. The admin should be notified about log-in failure.

MUST: 100% of the time.

**ID: QR11**

TAG: AdminAccountSecurity

GIST: Security of admin accounts.

SCALE: An admin should not be able to log-in to the web portal for a certain time period after three times of failed log-in attempts.

MUST: The locking period should be 15 minutes, and during that period the log-in function is disabled.

**ID: QR12**

TAG: UserCreateAccountSecurity

GIST: The security of creating account for users of the system.

SCALE: If a user wants to create an account and the desired user name is occupied, the user should be asked to choose a different user name.

MUST: 100% of the time.

**ID: QR13**

TAG: AdminCreateAccountSecurity

GIST: The security of creating account for admins of the system.

SCALE: If an admin wants to create an account and the desired user name is occupied, the admin should be asked to choose a different user name.

MUST: 100% of the time.

***3.5.4 Maintainability***

**ID: QR14**

TITLE: Application extendibility

DESC: The web application should be easy to extend. The code should be written in a way that it favors implementation of new functions.

RAT: In order for future functions to be implemented easily to the application.

DEP: none

**ID: QR15**

TITLE: Application testability

DESC: Test environments should be built for the web application to allow testing of the applications different features.

RAT: In order to test the application.

DEP: none

***3.5.5 Portability***

**ID: QR16**

TITLE: Web application portability

DESC: The application should be portable with Microsoft **Internet** Explorer 11.0 , Google Chrome, Opera.

RAT: The adaptable browser for the web application to run on.

DEP: none