ER: Requirements Specification Component

With this project, our group pretends to create a web application in the same vein as reddit, but with a focus on sport news.

A1: Sportium

Our group intends on building a web-based information system that allows users to publish, read, like, comment and interact with news articles. This service can be used by sports fans to connect with each other about the latest news and topics in the sports world. A team of administrators and moderators is used to moderate both the news and users.

Users have profiles where their bio, articles, interactions, interests, followers and follows are displayed to everyone. Users will also have a search engine where they can search for other users, articles and topics as well as a sorting tab where they can sort searches by popularity, most recent, hot (gaining popularity fast) and controversial.

The users are separated into different groups with different permissions. Visitors don't need to authenticate, but they can't do any interaction other than reading articles. Authenticated Users have the permissions to write new articles, comment, vote and report other articles. This user has also the power to block other users and start discussions in the comment section of articles. The Moderators are trustworthy users that can moderate both News Articles and Comment Sections, they have permissions to timeout other users and place articles under review for administrators to decide if the article is deleted or re-posted. The Administrators have unlimited permissions. They can delete articles or comments, ban users and choose moderators.

A2: Actors and User stories

This artifact details, in a brief way, the project's intended users and users' stories.

2.1.Actors
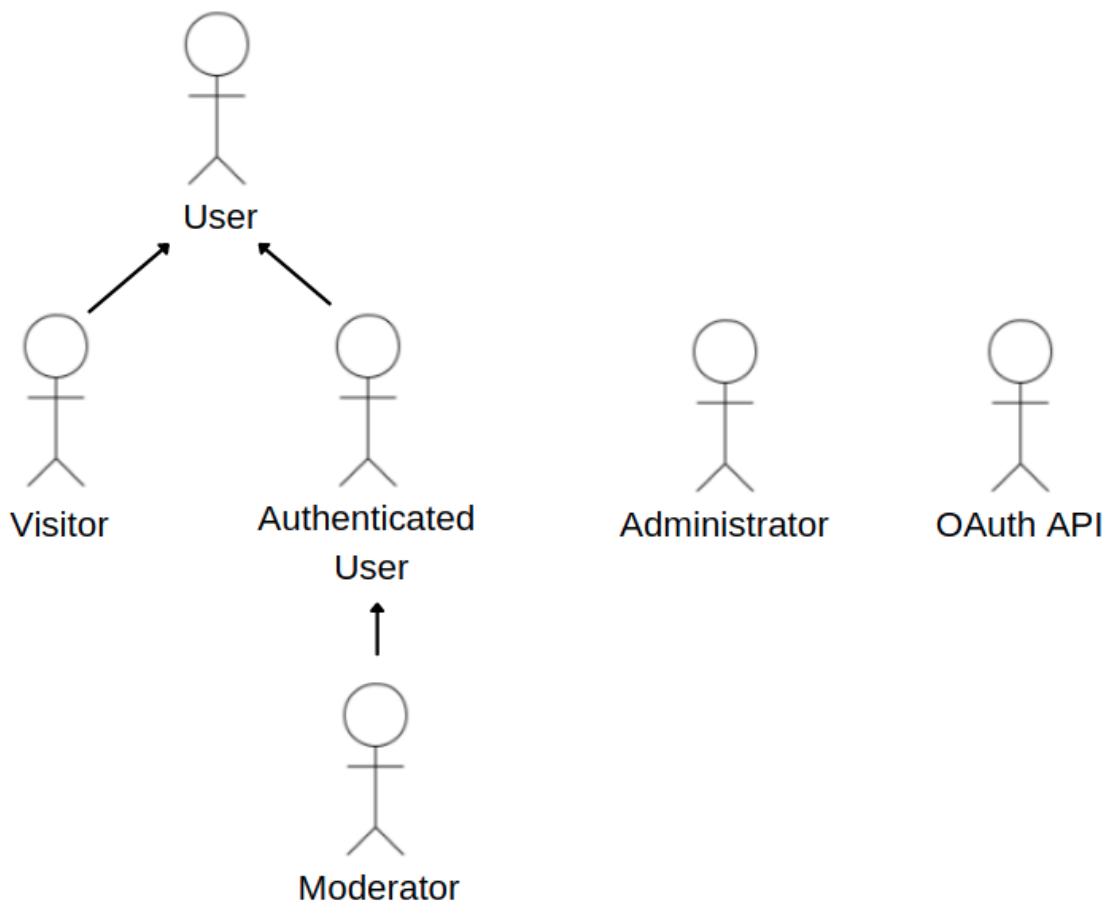
For this project, our actors are represented in figure 1.

Figure 1: Sportium actors.

Identifier	Description
User	Generic user that has access to the public information.
Visitor	Unauthenticated user that can only read the news and comments.
Authenticated User	User that can publish news and interact with other users through comments, votes, follow, reports and blocks.
Moderator	Authenticated user that is responsible for the management of users and for some specific supervisory and moderation functions.
Administrator	Responsible for the full management of authenticated users and moderators.
OAuth API	External OAuth API that can be used to register or authenticate into the system.

Table 1: Sportium's actors

2.2. User Stories

User

Identifier	Name	Priority	Description
US01	See Home	High	As a user, I want to see the home page, new or popular articles, and the current popular topics.
US02	See About Us	High	As a user, I should be able to access the "about" page to see what the site is all about.
US03	See FAQ	High	As a user, I should be able to see the most asked questions and its answers.
US04	See Contact Us	High	As a User, it should be easy to access the administrators contacts.
US05	See Search	High	As a user, I want to search for articles about a certain sport, or search for a certain user.
US06	See Jobs	Low	As a user, I want to easily apply for any open positions.

Table 2: Sportium's user stories

Visitor

Identifier	Name	Priority	Description
US07	Sign-in	high	As a Visitor, I want to authenticate into the system, so that I can like, comment, post and report.
US08	Sign-up	high	As a Visitor, I want to register myself into the system, so that I can authenticate myself into the system.
US09	OAuth API Sign-up	low	As a Visitor, I want to register a new account linked to my Google account, so that I do not need to create a whole new one to use the platform
US10	OAuth API Sign-in	low	As a Visitor, I want to sign-in through my Google account, so that I can authenticate myself into the system

Table 3: Sportium visitor's user stories

Authenticated User

Identifier	Name	Priority	Description
US11	Write Article	High	As an authenticated user, I want to be able to write and publish a new article.
US12	Comment Article	High	As an authenticated user, I want to give my opinion and discuss the article

			with other authenticated users.
US13	Follow User	High	As an authenticated user, I want to follow other authenticated users so I can see their articles.
US14	Profile	High	As an authenticated user, I want to be able to see my profile and change it.
US15	Vote Article	High	As an authenticated user, I want to have the possibility to upvote or downvote articles.
US16	Report Article	High	As an authenticated user, I should be able to report articles that I think are against the rules.
US17	Block User	High	As an authenticated user, I want to be able to block other authenticated users so I can't see their articles and comments.

Table 3: Sportium's authenticated users' stories

Moderator

Identifier	Name	Priority	Description
US18	Timeout User	High	As a moderator, I want to be able to timeout users if I think they are doing something wrong.

US19	Flag Article	High	As a moderator, I should be able to flag articles that I think are against the rules to an administrator to decide what to do.
US20	See Reports	High	As a moderator, I want to see the reports and evaluate if they should get flagged or not.

Table 4: Sportium's moderator's user stories

Administrator

Identifier	Name	Priority	Description
US21	Remove article	High	As an administrator, I want to be able to remove articles that I think are against the rules.
US22	Remove comments	High	As an administrator, I want to be able to remove comments that I think are against the rules.
US23	Ban users	High	As an administrator, I should be able to ban users.
US24	Moderators Flags	High	As an administrator, I want to be able to see the moderators flags and decide if those articles should be deleted or not.
US25	Manage Moderators	High	As an administrator, I want to manage moderators and see their work.

US26	Promote/Demote Moderators	High	As an administrator, I should be able to promote normal users to moderators and demote moderators to normal users, depending on my evaluation of them.

Table 5: Sportium's administrator's user stories

2.3 Supplementary requirements

This section houses the projects' Business rules, Technical requirements and Restrictions.

Business rules

Business rules can apply to many aspects of an organization and can be expressed in a variety of ways. In general, business rules define specific instructions or constraints on how certain day-to-day actions should be performed.

Identifier	**Name**	**Description**
BR01	Post Types	Posts made on the platform should be about sports or connected to them in a strong way.
BR02	Deleted Users	Only comments should be saved from deleted users with the comment author deleted.
BR03	Authenticity	Faked or false posts should be removed swiftly.
BR04	Privacy	The platform will not display any public information such as emails, phone numbers, etc… The only information displayed will be the user's nickname.

Table 6: Sportium's business rules

Technical requirements

Technical requirements apply to the technical aspects of the app. The more important requirements are colored differently on the table.

Identifier	Name	Description
TR01	Availability	The system should be available ideally 24 hours per day.
TR02	Accessibility	The page should be accessed by everybody regardless of their browser.
TR03	Usability	The system should be used by everyone regardless of age or technical expertise. The page should be easy to use and understandable to anyone.
TR04	Performance	The system should respond in a maximum of 1.2 seconds
TR05	Web application	The system should be implemented with a web application. The system should be accessed from any computer with internet access without having to install anything special as normal web applications.
TR06	Security	Information should only be accessed by authorised users via a verification system.
TR07	Robustness	The system should run despite any runtime error occurring.
TR08	Scalability	It is imperative that the

Identifier	Name	Description
		system should be prepared to house the growing number of users.
TR09	Ethics	The system shall follow a set code of ethics commonly used by software engineers.
TR10	Portability	The system servers should be able to work on many platforms like Apache, tomcat, etc...

Table 7: Sportium's technical requirements

Restrictions

Restrictions limit the liberty of an user with the goal of solving essential problems of the system.

Identifier	Name	Description
C01	Upvote	An user can only upvote an article or comment once.
C02	Commenting and Posting	Only accounts older than a day should be able to post and comment to avoid spam.

Table 8: Sportium's restrictions

A3: Information Architecture

This artifact presents our systems' sitemap and wireframes. That helps in understanding how the user side of things will work and how to present our webapplication's features more clearly so the user has a better experience.

3.1 Sitemap

A sitemap represents the relationship between the pages of our application in a visual way. This sitemap shows all our planned pages and provides an overview of how our system will be organized.

There are four main areas, identified by a grey box surrounding them. These pages are, Static pages, User Pages, Browse News and Manager Pages.
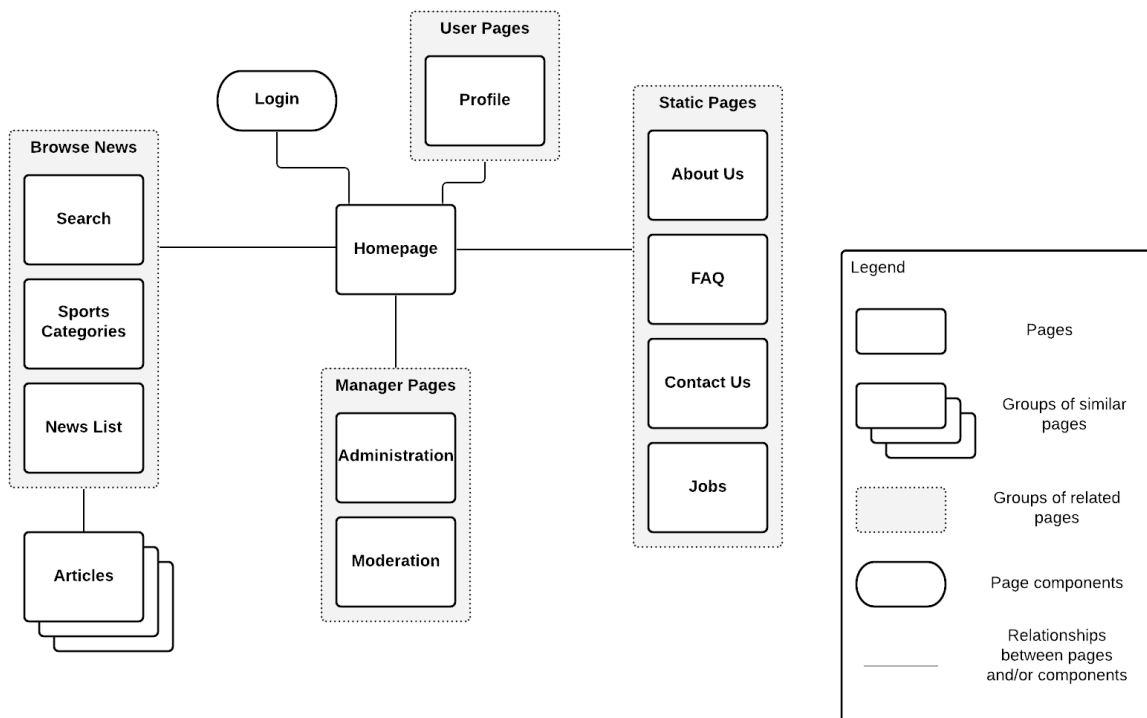

Figure 1: Sportium's Sitemap

3.2 Wireframes

Wireframes are useful tools to understand and design the layout of the more important pages of a system. A page's wireframe plans how a page should be designed and its content shown.

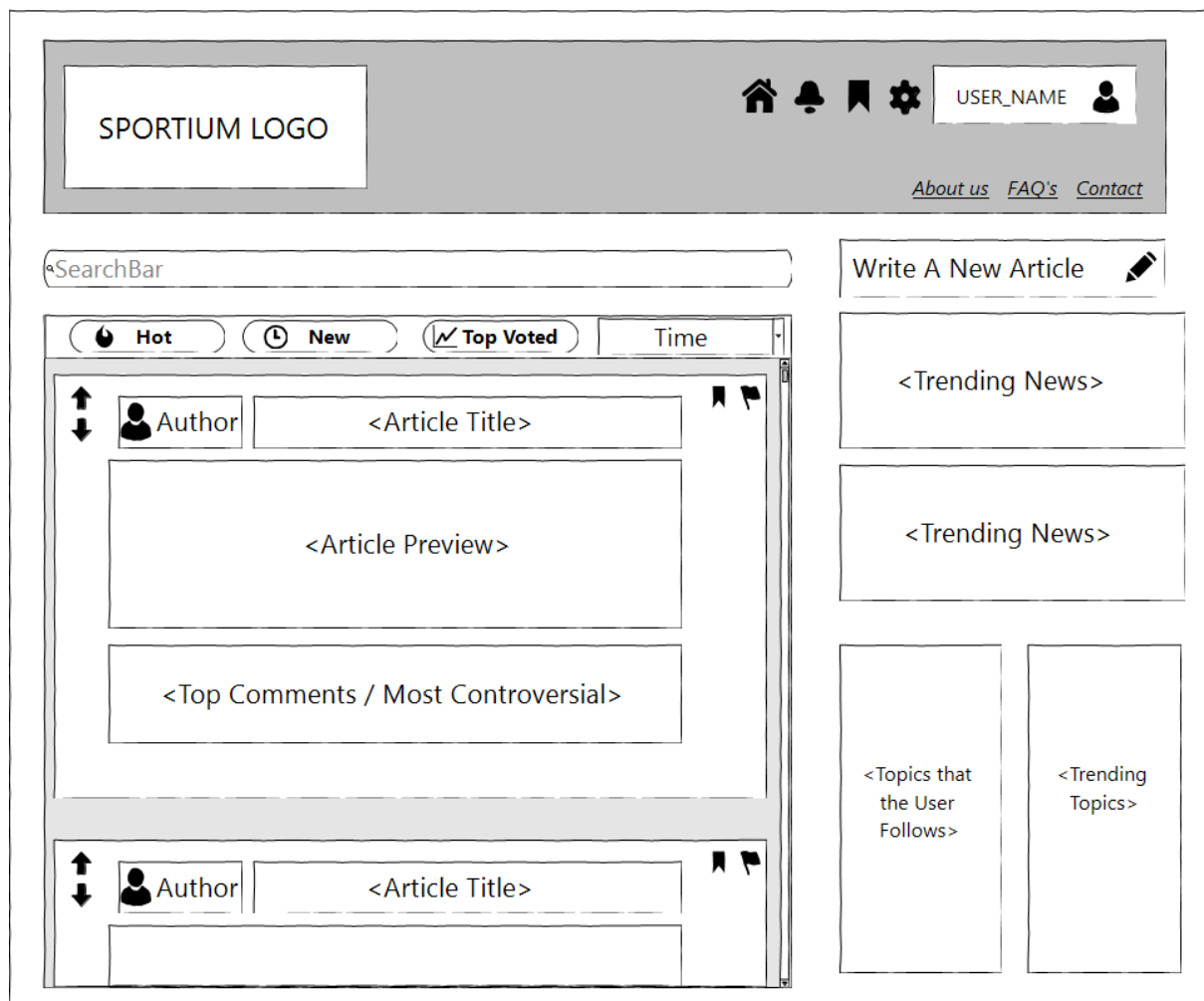The wireframes for the Profile page and Home page are presented in Figures 2 and 3, respectively

Figura 2: User Home page

On the upper right side of the page the user has always direct access to the home, notifications, saved articles, settings and profile pages respectively. He also has easy access

to the "About us", Frequently Asked Questions and Contact pages that are important to help the user with any doubts.

On the centre right side of the page the user has the ability to start writing a new article, to check the current Trending News on the "World of Sports" or to easily access the topics he follows and the current trending topics.

On the centre left side of the page the user can find news articles about the topics he follows and sort them by Hot (Most upvotes recently), New (Most recent) and Top Voted (With the most upvotes regardless of downvotes), he can also sort by "time" (Last 24hours/ Last week/ Last Month/ This year). The user can also use the Search Bar to find new topics, users and articles.

Figure 3: User Profile page

On the profile page, the users can display their picture, nickname, number of followers, number of follows, number of posts, reputation (classification based on upvotes/downvotes), a small bio written by them, a optional section where stuff about them can be displayed (Account creation date, Country/City, birthday etc…) and, to the right of the profile picture, they can share social networks they are on.

All this information can be altered by the user at any time using the Edit profile button on the right side.

Under his profile information, the user Posts, Liked Articles and Comments are displayed publicly.

Revision history

-[11-11-21] Added A1, A2, A3 to the ER
-[11-11-21] Added revision history to the ER
-[11-11-21] Added authors to the ER

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