Software Requirements for @Headline

(Software Engineering FOI 2019)

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Introduction

1.1 Purpose

The purpose of this SRS is to allow the users of our application to have access to the world press on his software. The app will be only available in computer and not for smartphones.

We don't target any specific audience in fact. Anyone who wants to read the press and wants to be aware of the news in the world can use our application. So our target will be people which use frequently their laptop (+16 years).

1.2 Scope

While using our software, the user will be able to create his own account. We will use a DBMS to store all the user data (username, password, user preferences etc…)
By default, there is some of the latest articles that are display on the main page , and the user will be able to do some requests to search for a specific info.
We will use MySQL DBMS for this project.
Our goal is to allow user to have a quickly access for the info that they are looking for, compared to if they use a classic search engine. In fact we want that our user save time.

1.3 Definitions, Acronyms and abbreviations

DBMS : Database Management System is system software for creating and managing databases. The DBMS provides users and programmers with a systematic way to create, retrieve, update and manage data.

UI : The user interface (UI) is everything designed into an information device with which a person may interact. This can include display screens, keyboards, a mouse and the appearance of a desktop.

Wireframe : A software wireframe, also known as a page schematic or screen blueprint, is a visual guide that represents the skeletal framework of a software.Wireframes are created for the purpose of arranging elements to best accomplish a particular purpose.

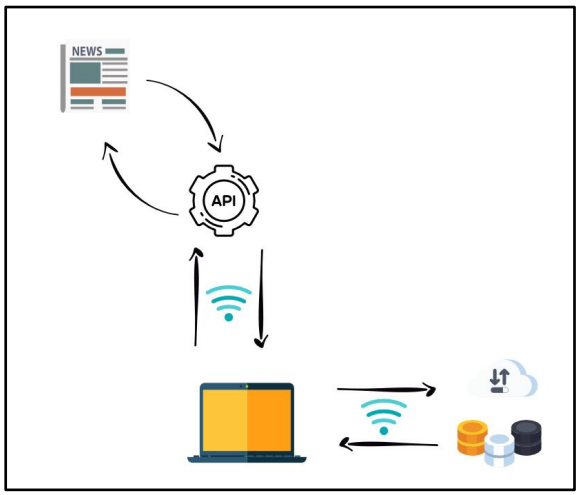
API : API is the acronym for Application Programming Interface, which is a software intermediary that allows two applications to talk to each other.

1.4 References

WaterFall Planning : This is the planning that we made for the whole project, it follows the waterfall project management methodology.

Design Wireframe : This document will offer a perfect view of the UI of our software, it will show all the possible interface of someone that will use @Headlines.

1.5 Overview



2. Overall description

2.1 Product perspective

2.1.1 System interfaces

We will use a database for all the login.
Each users will have a pseudo, a password, and some preferences for articles. With this method we will be able to propose to the user what he want every time he log himself.

We will use also an API. With this api we can get all informations about articles from a newspaper website.
We will be able to show the good articles to the user because we will modify the request of the api each time we need to use it : search windows and my articles windows

2.1.2 User interfaces

Login : the user will be able to log himself or to create an account. if he prefer to not log himself at all he can enter as visitors.

Home window: The page with random articles from the world. It's the page which appears when the user finish to log himself.

My Articles : It's the window where he will find all types of articles he prefer to see, the first time the software will ask what are his preferences. All the other time he will find the adequates articles corresponding to his preferences.

Articles : It's the window where the user can find a navigation bar with a lot of subjects, when he clicks on a subject, it will display all articles about.

Search windows: when the user will enter his research it will display some articles corresponding to his research.

2.1.3 Hardware interfaces

We don't need to use the hardware for our project.

2.1.4 Software interfaces

In fact we already explain this part with user interface and system interface

2.1.5 Communications interfaces

As we said before, we will have a communication between the application on the user device and the database on internet.
And the use of API (news api).

2.1.6 Memory constraints

We will not need secondary memory because we will not use the hardware. We don’t have any characteristics or limits for the primary memory, our goal is to create a basic application like all others on laptops

2.1.7 Operations

The different operations is communications with internet via API. The creation of the request for the api with some manipulation of string. And the display of the good window when the user click on some part of the windows.

There is no interactive operations

2.2 Product functions

Create Account :

The function will get three value : mail, pseudo and password. And it will send it to a database.

Login:

This function will get two values, two inputs(pseudo and password) that the user will enter in the login window, the functions will check if the account exist in the database and it will allow the user to go the home windows if it’s good. Whereas it will propose to create an account or to enter as a visitors.

Display Multiple :

We want to display many article in the home windows. Some randoms article from the most famous websites. So this function will have the responsibilities to display many articles at the same time, not all the article, just a title and short description and maybe a pictures if there is one. The objective of this little introduction is to attract the user to read it. Or simply to help him to find the good article.

Get Key Words:

This function will be used at two different moments, when the user will define which subject he like. And for the search window. The goal of this function is to get key elements from inputs, it will be only string elements because we will use it in the get article function. This function will return one or more string of characters.

Get Article:

This function is the most important one. In this function we will call or api. It's request http that will return a json file, in this file we will find a lot of article in a particular form.
We will the function get key words because if the user wants to get a specific article. We need to change the http request. So we will manipulate string of characters.

Display Article:

In this function we will use the json file to display the article, we will take the article , the description ,the content and the picture and display it on the window with a specific design (organisation on the window)

2.4 Constraints

The only hardware limitations will be the storage space available on the user's computer, just to allow the application to be installed.

The others constraints is to have an access to internet, battery and a mouse.

2.5 Assumptions and dependencies

It can have factors that affect the requirements stated in SRS, such as the internet connection. If internet connection is not available, the SRS will be impossible to used.

2.6 Apportioning of requirements

It will be interessant in some other versions of the software, to use a mobile compatibility using a mobile app.
The design of the software could be something that we can delayed until future versions of the
system.

3. Specific requirements

3.2 Functions

The software shall communicate with the API using query , to avoid problems we should catch all the exceptions that could appears related to the user input.

It shall also be able to insert into the database every info that is related to the result from the API, as we know databases are case sensitive , so here again we should be able to have a perfect control about what is send and what is received.

It shall at the login page check is a user is registered, if not it will propose to sign up , if a user is already in the database , it will show an error message “username already taken” .

To login to an account the user should enter a correct username and a correct password associate to this username.

3.3 Performance requirements

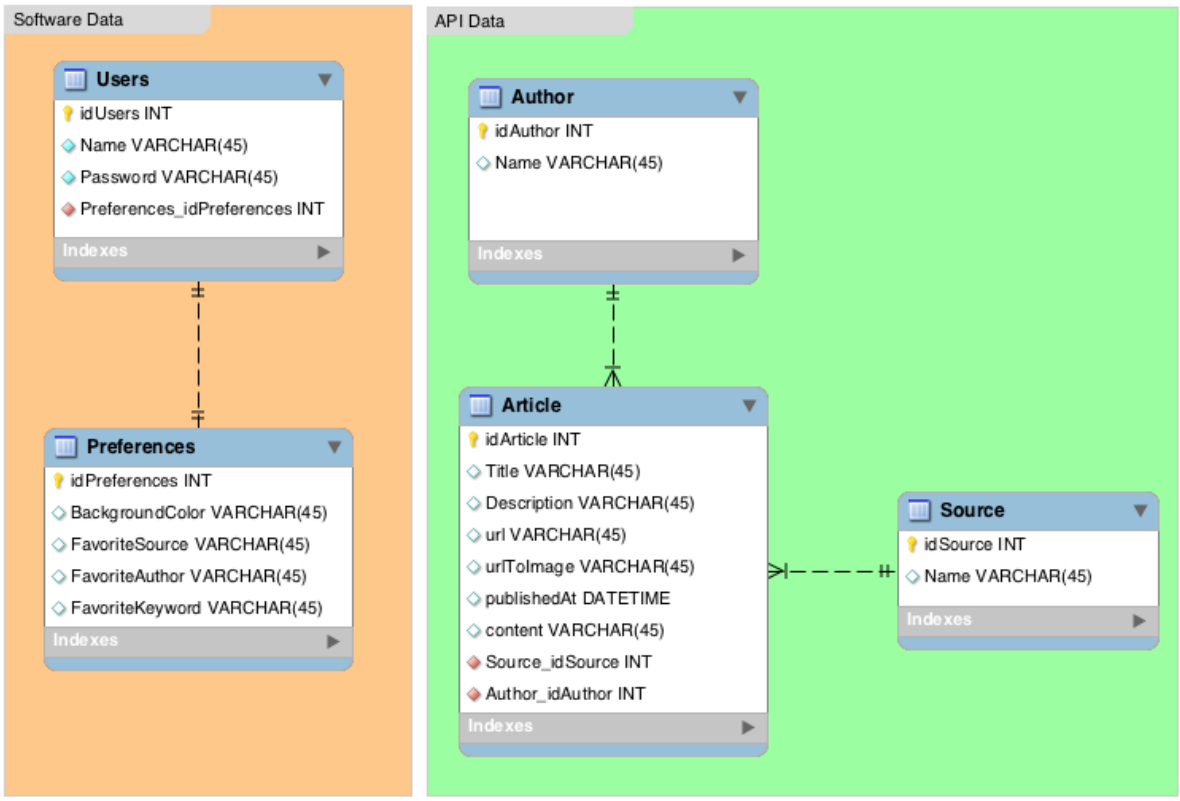
We will be able to support one terminal at time, and only one user at time.
If you want to use more instance of our software in multiple terminals, you should install our software on each terminal.
About the infos that are handled, when our software will look for the information of the different press sites, the data recovered via NewsAPI will be in JSON format, we made the choice to store them in an external file.

After the query, all the infos about the articles shall be processed in less than 2 s.

3.4 Logical database requirements

Our database will be structure as mentioned in the picture bellow , we used MySQL Workbench to create and design the DataBase.

It will store all the infos relative to a user (username, password, his preferences…)
We give him the possibility to change the design of the software (the background, for a more personal experience) . He will also have the possibility to select a favorite source of article and a favorite author or a favorite keyword (that we give him the ability to do quick request to the API)



From API side we have lot of infos to store , under is the result of a request, so we created 3 tables , one with the Author infos , one with the source name , and the last one with all direct data that are from the article (title,description,url,content, …)

3.5 Design constraints

3.5.1 Standards compliance

The main purpose of our software application is to have access to the world press on his software. So, an obvious constraint is to keep the same content of the article. It has to remain unchanged. Otherwise, our software won't be valid. We might change the form of the content, but never the content itself.

And also, we think we will display maximum 15 articles in a day.

3.6 Software system attributes

3.6.1 Reliability

The login / register feature should be done and correctly send and receive data to the Database.

The query should not give exceptions relative to the user input.

The software should receive data according to the query that the user did , and all the infos have to be display in a nice way.

3.6.3 Security

We will not use any cryptographical techniques , except maybe for the storage of the password in the Database (using SHA256 or MD5) , otherwise we will also use a user/password system for the access to the software.

3.6.4 Maintainability

In order to keep the software useful and simple, we will need to adapt it each time there is a new version of news api, they are at 2.0 but we don’t know how many time it will change in the future. In fact, if the json file that we receive from the api request change we will need to update the software, or simply if the request change his logic.
With the first version of our software we will need feedback about users, with there remarks we will modify our application to improve it.

3.6.5 Portability

The portability of our software is really simple. Each user has on his laptop the software downloaded and installed. One user can be log in on the software on one computer. You can log in on two differents laptop at the same time. The softwares will run independently of each other and have no impact on the other one.
Our device will be only on windows.

3.7 Organizing the specific requirements

3.7.2 User class

We have only one type of user.
The user attributes are username (string), password(string), favorite source(string), favorite keyword(string) and favorite author(string).

3.7.4 Feature

The most desired features of our software will be the search part, the user will be able to find the right article for what he is looking.
By the way,another feature that characterizes our software.

4 Additional comments

4.1 Planning Table

N°	Traits	Titre	Travail donné	Prédécesseurs
0		**@HeadLines Project Planning**		
1		**Project management Part**		
2		constitution of team	1 jour	
3		contact and exchange with croatian member	1 jour	2
4		Searching for a project idea	1 semaine	3
5		Distribution of functionnal requirements	3 jours	4
6		Make the planning	10 jours	5
7		Create GitHub repository	1 jour	6
8		Design overview	10 jours	7
9		Writting SRS file	10 jours	8
10		**Technical Part**		**9**
11		Creating and upload the Database	5 jours	9
12		Registration	15 jours	11
13		Login	15 jours	12
14		Search Bar (keyword)	10 jours	13
15		Design Home Part	5 jours	9
16		Home Part	15 jours	15
17		Article Part	15 jours	16; 21
18		Calling API	10 jours	9
19		Data Gestion	15 jours	18
20		Use Data	15 jours	19
21		Design Article Part	15 jours	9
22		Navigation Bar	10 jours	21
23		Icon	5 jours	22

4.2 Gantt