

Functional Requirements Document

Time Manager

Version	Description of Change	Author	Date
v1.0	Writing of first version specifications of Time Manager	Team48	17/09/2019
V1.5	Correction	Team48	20/09/2019
V2.0	Final version	Team48	29/09/2019

1 INTRODUCTION

1.1 Purpose

Following the rumblings of the employees of the town hall of Gotham concerning their working condition and their time management, the city council has decided to make a call for tenders to create an application (called “Time Manager”) able to provide solutions adapted to the needs notably:

- Improved time management with specific time slots
- To be able to manage your teams
- Have access to graphs of working time
- Provide a mobile application
- Other improvements

The main goal is to deliver an effective and intuitive solution in the long run.

1.2 Scope

This document takes the form of a functional specification. This one will detail all the specifications provided by the town hall (the client) and the various remarks of the employees.

1.3 Background

Our team of 4 project managers has the goal, defined by the Mayor Joker and HR, to provide a solution quickly. Our job will be to develop an interface for the employees of the town hall by following the specifications and meeting the needs.

1.4 References

For three weeks, our team has been trying to provide a solution and a presentation of the project on time.

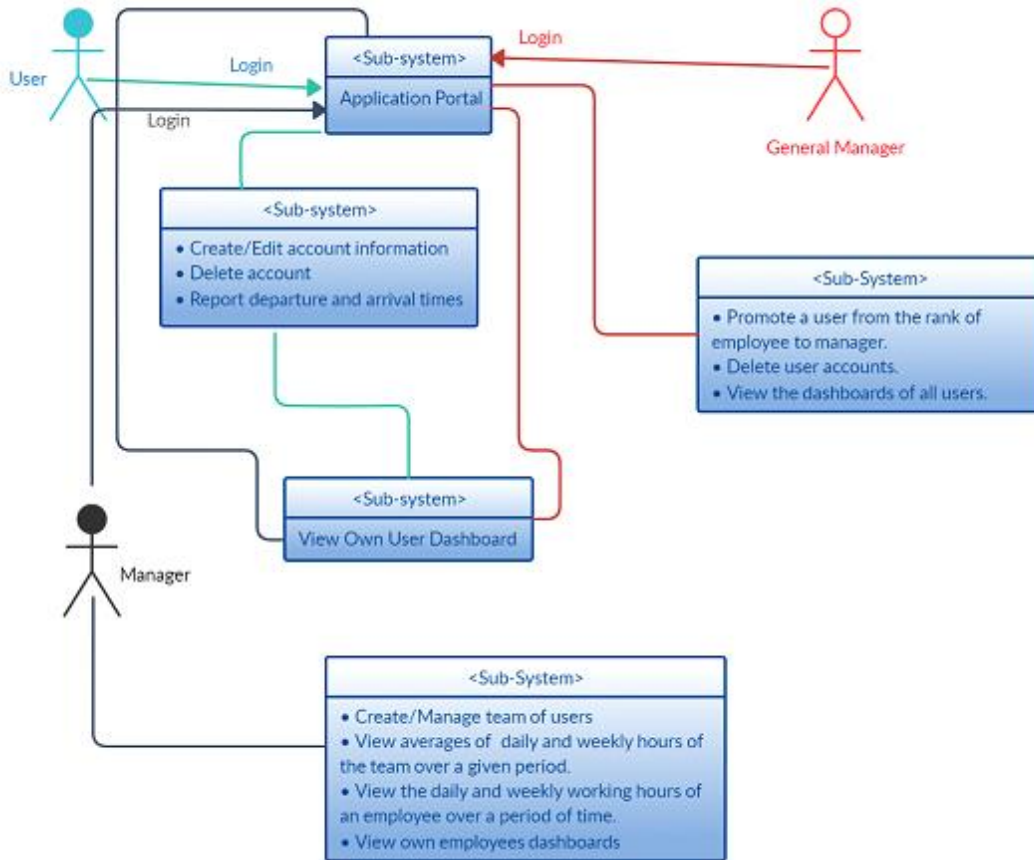
1.5 Document Overview

We have divided this document into two chapters:

- Functional requirements: technologies used to develop the application
- Other requirements: wireframe

2 FUNCTIONAL REQUIREMENTS

2.1 Context



The context diagram above illustrates all the tasks each group of users can perform when interacting with the application and how the program responds to each interaction.

2.2 User Requirements

At the request of our client, we have created 3 environments:

- Employee, general manager and manager.

Tâches/Rôles	Employee	General manager	Manager
View personal account	X	X	X
View general account	O	X (restricted)	X
Management personal account	X	X	X

Team management	O	X	X
Use Clock	X	X	X
Modify clock	O	X (restricted)	X
Stat perso	X	X	X
Stat (team)	X	X	X

User's concerns are key points which necessitate the formulation of several functional requirements. It is vital to identify who the users are to define their needs and come up with satisfying means to fulfill them. Gotham City's mayor and senior officials have identified three main categories of users, namely:

- **Employees:**

They are assets to the company that should not be neglected and need a system that would better their working conditions, be ease of use, allow for them to create account where all data concerning one's shift be entered so it can be easier to keep track of time spent working.

- **Managers:**

The ones in charge of monitoring employees as to keep control over the flow of work and avoid any disturbance that would halt activities within the company. The system is to allow them to monitor employees more efficiently, so productivity is maintained. They should be able to use the system with ease and perform tasks such as viewing employees' data ranging from any individual working hours to those of a team made up of many employees.

- **General Managers:**

They are the top of the chain within the company and are responsible for promoting users to managers and managing the whole user database. The system should allow them to delete users, promote them and viewing all data saved into the system.

Users should be able to benefit from the soon to be implemented Time Manager so the system will aim to fulfill their needs at the three following main levels:

- **Operation:**

The system is to promote managing a group of people and activities revolving around all employees, so users should be able to operate the system. It should be user friendly enough.

- **Revision:**

The user needs should always be put forth so the system should be scalable and able to keep on answering any demand that could arise.

- **Transition:**

User needs the system to be a multi-platform interface that could be accessed from any device or operating system.

2 OTHER REQUIREMENTS

During all the process of creation of this application, we need tools for realize the development.

2.3 Interface Requirements

We need to use a web interface with lot of page like connection, charts, ...

2.3.1 Hardware Interfaces

We work in local.

2.3.2 Software Interfaces

[Name the applications with which the subject application must interface. State the following for each such application: name of application, external owner of application, interface details (only if determined by the other application).

It is acceptable to reference an interface control document for details of the interface interactions.]

2.3.3 Communications Interfaces

This application allows external connection. He must be accessible outside, the access has to be secured.

2.4 Hardware/Software Requirements

For Time Manager application we have using the four technologies required and the last technology for mobile:

- **Phoenix**: Framework back-office API **Elixir** ; **PostgreSQL** : for database ; **VueJS** : Front.
- All technologies are used in a **Docker** container.
- **React Native**: for mobile application.

2.5 Operational Requirements

[Provide the operational requirements in this section.

Distinguish preferences from requirements. Requirements are based on business needs, preferences are not.

Operational requirements describe how the system will run and communicate with operations personnel.

2.5.1 Security and Privacy

- We use safe and stable framework for improve the safety and the functionate of the application.
- This application require account with specific access and rights manage by administrator or managers.
- Only administrator has system right to manage all accounts and access to the application.
- The password is encrypted in database.
- Our team have testing different solution of hacking for prevent hacking attack.

2.5.2 System Availability

This application can be using every time without timeout for all workers who use it every day and night. 7/24.

2.5.3 Data Retention

For this part, we will use the RGPD regulation and the internal charter of users. But this application is for HR and it allows them to control of data of each users.

2.5.4 Error Handling

Case of errors:

- Login page: If your username or password is invalid
- Work in night: If you work too much the night
- Exceeded time range

2.5.5 Validation Rules

Case of validations:

- Login page: If your username and password is valid,
- If your account is correctly update,
- If your time of work is correctly save.