

Software requirements specification (SRS)

Christof Sy, Michael Trittibach, Michael Brunner, Manuela Eschler

Introduction in Software Engineering

Computer Science
University Bern

Version: 0.9

October 2017

Contents

1	Introduction	3
1.1	Purpose	3
1.2	Stakeholders	3
1.3	Definitions	3
1.4	System Overview	3
1.5	References	3
1.6	Open Questions	4
2	Overall Description	5
2.1	Use Cases	5
2.2	Actor Characteristics	5
2.2.1	Logistician	5
2.2.2	Driver	6
2.2.3	User Admin	6
2.3	Open Questions	6
3	Specific Requirements	7
3.1	Functional Requirements	7
3.2	Non-functional Requirements	7
3.3	Open Questions	7

1 Introduction

1.1 Purpose

The System will inquire the following purposes:

- Reduce work/staff
The System will reduce time to do the same work. Less persons can do the same job with the System.
- Get overview of all orders and drivers
The logistician will have a good overview of all the orders, drivers and deliveries.
- Always available and up to date
The informations on the system are always available and up to date.
- Analyze for improvement
The estimated time for the deliveries and the actual time used will differ. The system allows to analyze this difference for improvements.

1.2 Stakeholders

The stakeholders represent the groups of people who will use the system. The system will serve their purposes in the best way possible.

- **Driver**
The driver makes the deliveries. He needs at any time access to his current and future deliveries and their informations.
- **Logistician**
The logistician organizes the tours for the drivers. He keeps the overview and reschedules failed deliveries.
- **User Admin**
The User admin manages all users.

1.3 Definitions

No definitions required yet.

1.4 System Overview

The new System's overall purpose is to manage logistics. It assists the stakeholders driver and logistician in the best possible way.

The logistician has a overview of all the pending orders at every time. Out of all the pending orders the system supports him organizing tours for every driver. With this system the logistician is able to adjust and reorganize the tours if necessary with little effort.

The system supports analyzing completed tours for improvement.

The driver has an overview as well as details of his few next tours. He can update the status of every delivery in real-time.

The driver can take a look at his tours on a desktop as well as on a mobile. **The user admin** administrates all users on the system.

1.5 References

No references required yet.

1.6 Open Questions

1. Is a forth stakeholder necessary? Like a customer? Where are the orders from?
2. If there is a customer, can he follow his delivery?
3. Login, private link or open source?

2 Overall Description

2.1 Use Cases

Use cases of the logistician

1. Logistician login to website
The logistician opens the website with a browser and logs in with username and password to the backend.
2. Logistician organizes tours
The logistician has overview of all deliveries and their informations. He assembles the deliveries to tours.
3. Logistician assigns tours to drivers
The logistician assigns the tour to a driver.
4. Logistician evaluates tours
The logistician evaluates for every tour the estimated vs the used time.
5. Logistician reschedules failed deliveries
The logistician adds failed deliveries to future tours.
- 6.

Use cases of the driver

1. Driver login to website
The driver opens the website with a browser and logs in with username and password to the frontend.
2. Driver has overview of his tours
The driver has overview of his tours with details of every delivery.
3. Driver sets status of delivery
The driver changes the status of a delivery to passed or failed.
4. Driver adds used time for tour
The driver adds the used time for the tour.

Use cases of the user admin

1. user admin login to website
The user admin opens the website with a browser and logs in with username and password to the backend.
2. User admin creates users on system
The User admin adds new users to the system and set the settings right.

Use cases of the system

1. System notifies logistician when delivery status is failed The system sends a notification to the logistician when the status of a delivery changes to failed.

2.2 Actor Characteristics

2.2.1 Logistician

The logistician would like to:

- Organize tours efficient and simple
- Improve tours with little effort by evaluating past tours
- Reschedule tours without additional paperwork
- Have an Overview of the status of the deliveries

2.2.2 Driver

The driver would like to:

- Have an overview of his upcoming tours
- Update of the status of the deliveries immediately

2.2.3 User Admin

The user admin would like to:

- Add new users to the system
- Remove users from the system
- Modify users on the system

2.3 Open Questions

1. These are our initial recommendations to accomplish your request. Open for discussion.

3 Specific Requirements

3.1 Functional Requirements

Backend:

- User management: Add, modify and remove users
- Tour management: Add, modify and assign tours
- Delivery management: Add, update and modify deliveries
- Report management: Compare estimated and used time of tours

Frontend:

- Individual tour overview: Present tour and the assigned deliveries incl. details
- Delivery Status management: Update status of delivery

3.2 Non-functional Requirements

- The web application has responsive design

3.3 Open Questions

1. How many user will be on this system?
2. With what kind of data are we dealing?
3. How does the paperwork look like? take this as template?