Software requirements specification (SRS)

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Introduction to Software Engineering

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Contents

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 Admin will have a good overview of all the orders, drivers and deliveries.
- Always available and up to date
  The information 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.

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

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 Admin in the best possible way.
The user admin administrates all users on the system and has an 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 admin 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.

1.5 References

No references required yet.

1.6 Open Questions

No open questions for now.

2 Overall Description

2.1 Use Cases

2.1.1 Use cases of the user admin

The user admin logs in to the website like the others with a user name and a password. He can add new users to the system and can set their settings. He has a broad overview of all deliveries and their information and he can assemble the open ones to tours. He than can assign tours to the drivers. After a tour is finished, the admin can evaluate the estimated against the used time. When a delivery was unsuccessful, he then can reschedule these to different future tours.

1. Admin logs in to website
   The admin opens the website with a browser and logs in with user name and password to the backend.
2. Admin creates users on system
   The admin adds new users to the system and set the settings right.
3. Admin can change User settings
   The user admin can change the settings of all users.
4. Admin adds new deliveries to a database
5. Admin organizes tours
   The admin has overview of all deliveries and their information. He assembles the deliveries to tours.
6. Admin assigns non-scheduled deliveries to tours.
7. Admin assigns tours to drivers
   The admin assigns the tour to a driver.
8. Admin evaluates tours
   The admin evaluates for every tour the estimated vs the used time.
9. Admin reschedules failed deliveries
   The admin adds failed deliveries to future tours.

2.1.2 Use cases of the driver

Just like the admin, the diver can log in to the website with his user name and password. Here he has an overview of his tours with details of every delivery. He can change the status of a delivery to passed or failed and also adds the used time for the tour.

1. Driver logs in to website
   The driver opens the website with a browser and logs in with user name 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.

2.1.3 Use cases of the system

The system notifies the admin when a delivery status changes to failed.

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

2.2 Actor Characteristics

2.2.1 User Admin

The user admin would like to:

- Add new users to the system
- Remove users from the system
- Modify users on the system
- Organize tours with help from the system
- 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

2.3 Open Questions

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

2.4 Nice-to-have List

This is a list for things to further update the system, once the important parts are finished:

1. Drivers can transfer tours to other drivers, when they are not available at the time.
2. Users can reset their password without the help from a user admin.
3. Costumers can follow the status and place of their package.
4. The System can calculate the time the tours will take.
5. The users can filter tours, deliveries and users by various criteria.

3 Specific Requirements

3.1 Functional Requirements

Backend:

- User management: Add, modify, lock and remove users
  Every user needs a user name , a password and a role (admin or driver).
  Locked users cant log in to the system.
- Tour management: Add, modify and assign tours
  Admins have to be able to combine deliveries to a tour and assign them to a driver.
  Drivers have to be able to watch their upcoming tours and details of the tour. Drivers have to be able to report the used time of the tour.
  Admins have to be able to get a overview of the statistics of the passed tours.
- Delivery management: Add, update and modify deliveries
  Admins have to be able to get a overview of the deliveries witch are not already assigned to a tour or witch are failed.
  Drivers have to be able to set the status of a delivery to passed or failed.
- Report management: Compare estimated and used time of tours
  The system has to compare estimated and used time of tours, how many deliveries and how much of them passed or failed.

Frontend:

- Individual tour overview: Present tour and the assigned deliveries incl. details
  Drivers have to get an overview of their upcoming tours directly after logging in to the system. Before they start the tour they have to tell it to the system and at the end of the tour they have to tell it to the system again.
- Delivery Status management: Update status of delivery
  After every passed or failed delivery the driver has to report the status of the delivery to the system.

3.2 Non-functional Requirements

- The web application has responsive design

3.3 Open Questions

No Questions for now.