System specification

BauX (Version 0.1)

Project name	BauX
Project leader	Pero Djukic
Responsible	Executive
Created on	Java, Android and XHTML
Last changed	18/11/2018 10:15
Processing status	X in process
	Submitted
	Completed
Document file	

HTBLA Leonding

Contents

1. Initial Situation and Goal

1.1 Initial Situation

In a construction company there is as well as in any other company a leader. Under the leader there are subordinate foremen (those people who manage the construction site) and under them in turn foremen, who also have a few subordinate workers and unskilled workers among them. Together these foremen and their workers form so-called batches.

Graphic of the organizational plan:
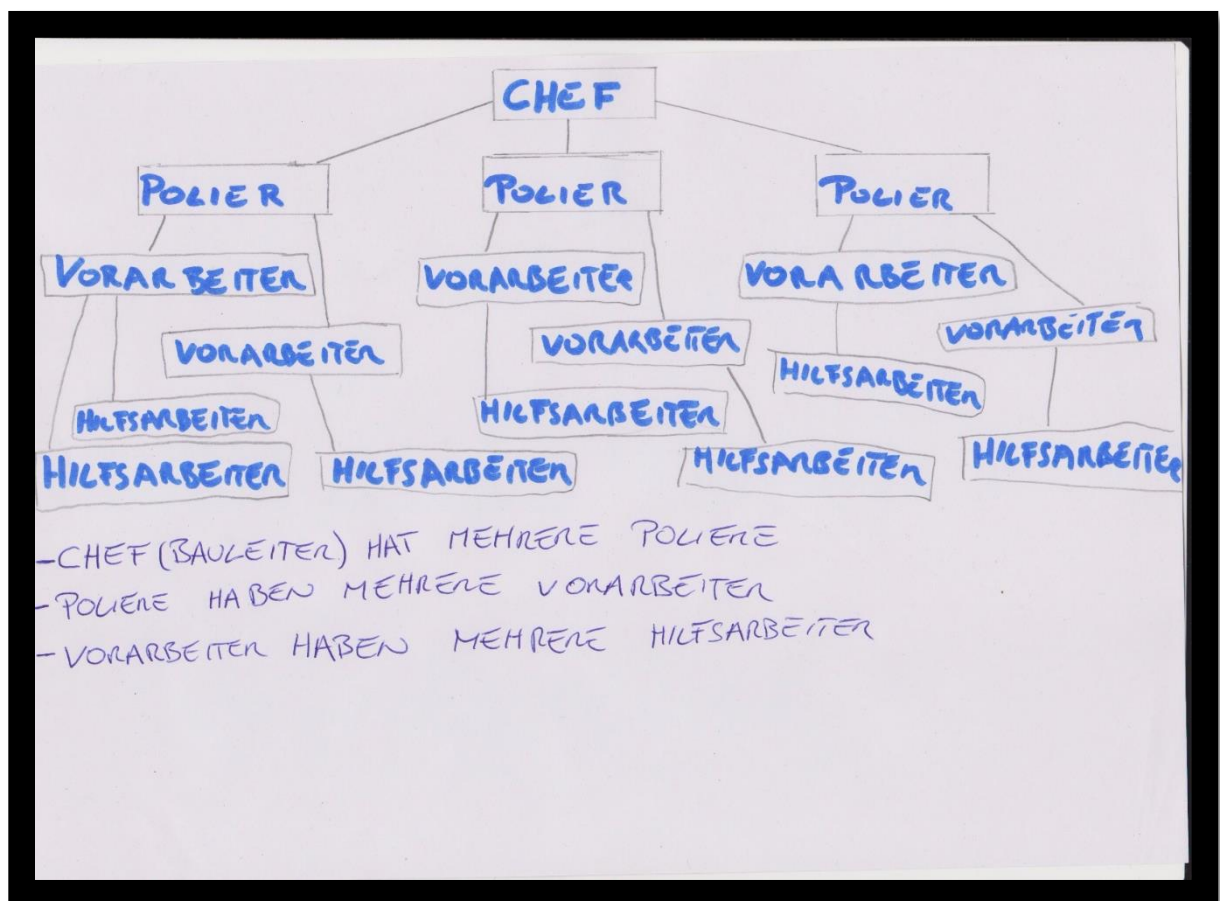
However, a single leader cannot check all the foremen, let alone all the employees of a company at the same time and see whether they are on the construction site.

Especially not with the conventional way, of driving the company car from construction site to construction site. Thus the workers could leave the building site earlier and do other things or don't come to the construction site at all, which could come to the company to costs.

In addition, the current method of recording employees' working hours on timesheets is impractical, because a foreman is likely to have more important tasks to perform than paperwork. Likewise, individual timesheets of some employees could be lost in the chaos on the construction site, which in the worst case could lead to, that the worker loses parts of his wages.

1.1.1 Application Domain

A batch is approaching their construciton site in the early morning. The foreman writes everybody down who will work on the constuction site on this day.

Then the work starts.

Shortly before the end of the working day, the formen enter his own little office (mostly a small container) and files an entry in a form holding working hours for the whole batch. A so called timesheet. Every worker has his own timesheet every week. (A 10 percent bonus is charged when you work on the scaffold)

An example of a timesheet:

He also writes a work report which states on which construction site work has been done, what temperature and weather conditions have prevailed, where exactly what work has been done and which machines have been used. The names of the workers and their working hours can also be found on this report.
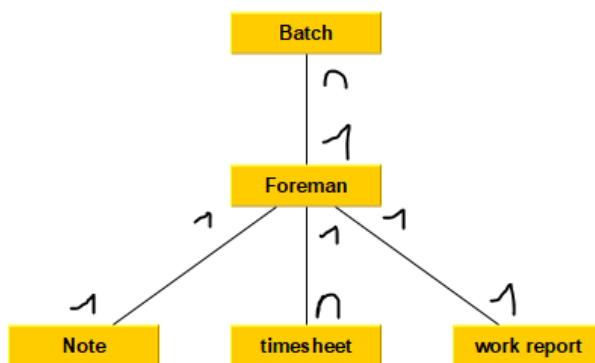
An example of a work report:

1.1.2 Glossary

A note, that says who will be working on the construction site that day.

Timesheets, that record the working hours of the respective worker.

A work report, that states the done work and some other things.

1.1.3 Model of the Application Domain

1.1.4 Overview of the Business Processes

1.1.5 Business Description of the Processes

1.2 Goal Definition

2. Functional Requirements

2.1 Use Case Timesheet
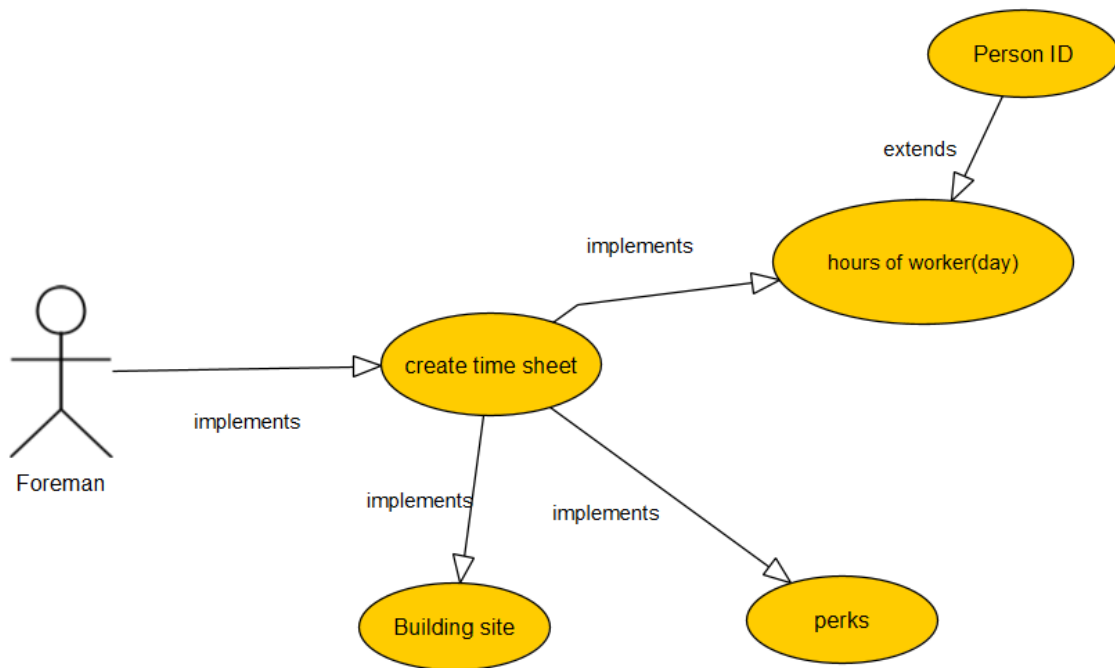
2.2 Use Case Timesheet Details
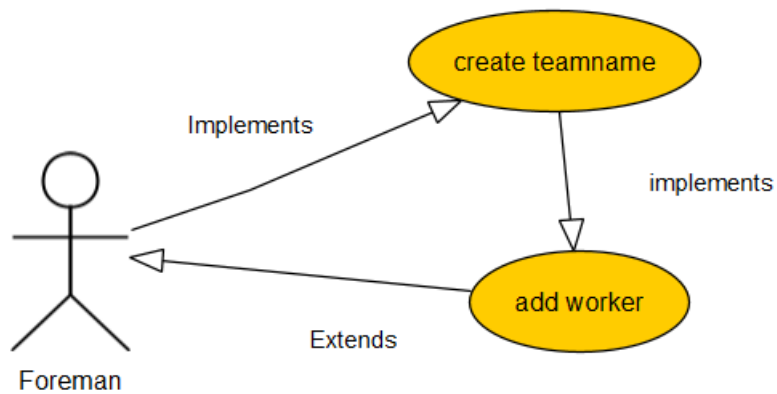
The foreman makes a time sheet.
This timesheet is used for one week.
This time sheet contains the construction site, on which day and for how long the worker was present at the construction site.
Bonuses and other factors are also on this page.
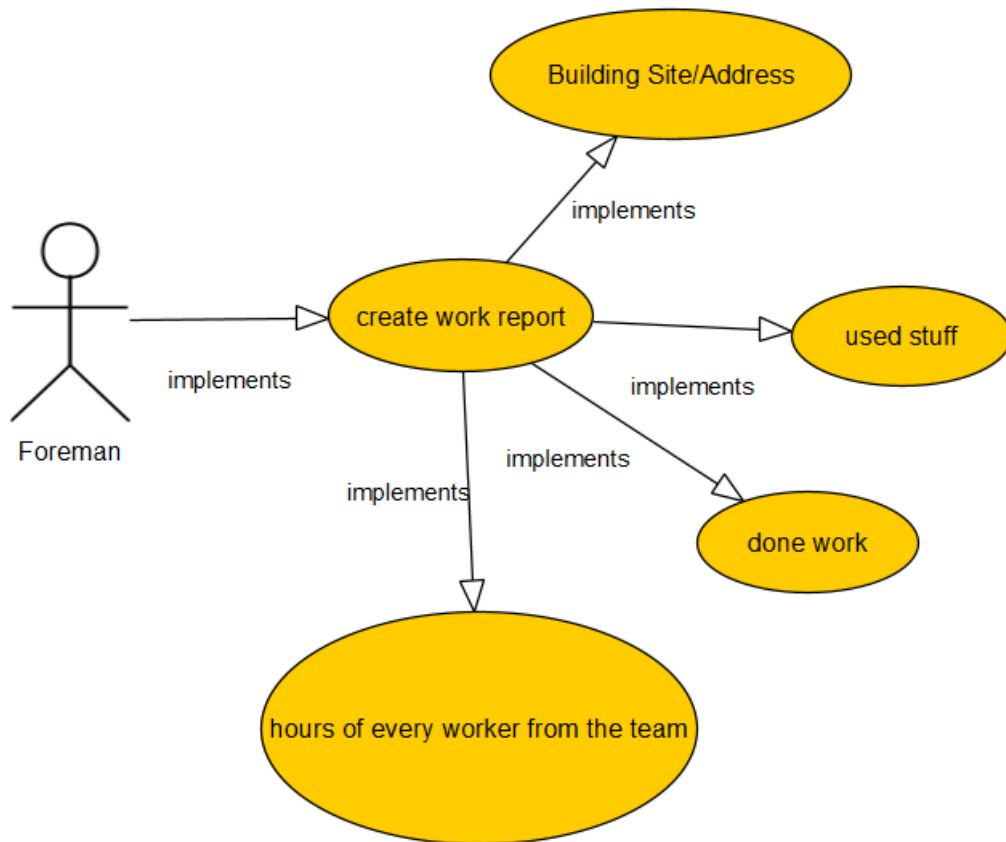Note: Every worker has a new time sheet every week.

2.3 Use Case Team

2.4 Use Case Team Details

The foreman creates individual teams and can assign workers to them.
This enables easier coordination on the construction site.

2.5 Use Case Work Report

2.6 Use Case Work Report Details

The foreman will draw up a work report.
This work report describes the construction site and the day.
The number of hours worked and the work done are given.
Other factors such as which equipment was used, the weather etc. are also recorded.
If there has been a certain incident can be described.

3. Non Functional Requirements

ID:	NFR_001
NAME:	Data volume
TYPE:	EFFIC
DESCRIPTION:	The app should be designed so that it can be operated even with a very slow Internet connection and therefore requires little data.

ID:	NFR_002
NAME:	Battery efficiency
TYPE:	EEFIC
DESCRIPTION:	The app should avoid unnecessary processes in order to be able to work as efficiently as possible and to conserve battery power.

ID:	NFR_003
NAME:	Start time
TYPE:	EFFIC
DESCRIPTION:	The app should be ready to use within a few seconds after opening, after logging in it should not take long until full functionality is reached.

ID:	NFR_004
NAME:	Glove operability
TYPE:	USE
DESCRIPTION:	The buttons should possibly be large enough to be operated with gloves.

4. Quantity Structure

In view of the data to be stored, we will use a database.
In the database is stored when someone was present and when not, furthermore his overtime will be stored such as other factors e.g. scaffold bonuses and so on.