

Project MRS

Requirements



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# 1 Organisation

## 1.1 Group roles

Role	Name	Shortcut
Project Leader	Mändlen, David	DM
Development Manager	Muschewski, Eugen	EM
Design Manager	Ribul Moro, Alessandro	AR
Quality Manager	Sahin, Fatih	FS

### 1.1.1 Role Definitions

The above-mentioned roles are tasked with the following duties:

- Project Leader
  - Setting schedules
  - Coordination of efforts
  - Supervising the team
- Development Manager
  - Developing SQL
  - Realization of Designs
- Design Manager
  - Designing Data Models
  - Designing Report Generation
  - Designing Views
- Quality Manager
  - Creation of Unit-Tests
  - Testing robustness of Database
  - Ensuring adherence to the principles of clean code

## 2 Analysis

### 2.1 Mission Statement

MRS is aimed at supporting university administrators in managing personnel, building capacities and time-budgets. This is achieved by structuring stored data to reduce possible inconsistencies regarding lecturers, times and rooms.

### 2.2 Mission Objectives

#### 2.2.1 Structuring

Data will be stored in a manner that reduces the possibility of inconsistencies. The stored data will contain information about lecturers, lectures and times. Possible restrictions will be honored.

Example:

#### 2.2.2 Querying / Reporting

The database can be queried for different kinds of information and is able to generate the reports specified by the client.

Example: The administrator can search for faculty, lecturers, times, departments and more.

#### 2.2.3 Update

The database will accept updates if they are correct and do not violate any process rules. Otherwise the database will not accept the data.

Example: If a restriction puts a lecture at midnight, the restriction would violate the working hours of the university and therefore will result in an error.

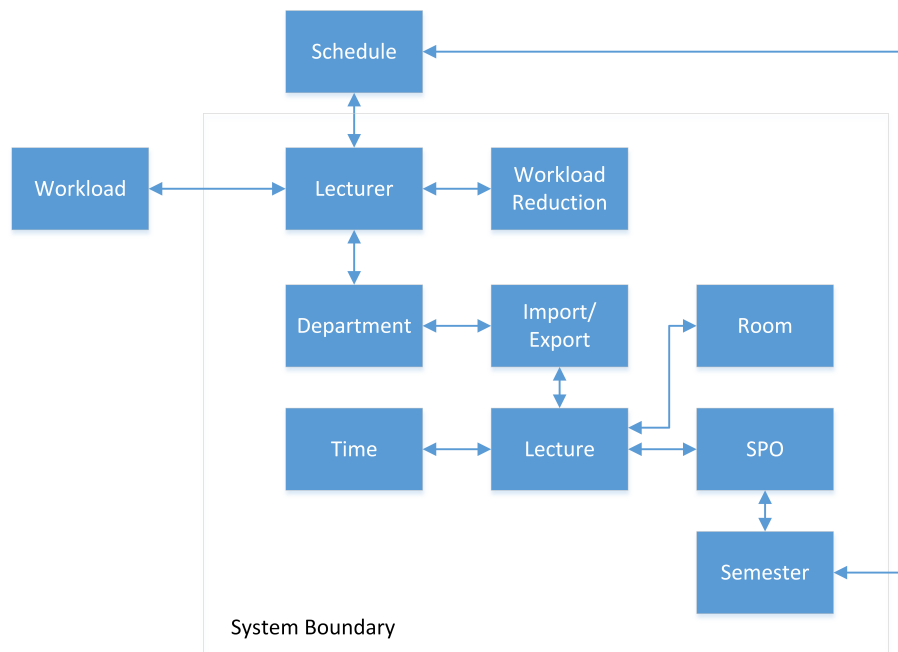
#### 2.2.4 Documentation

A report of work planned for specific lecturers over a given time frame can be generated.

Example: The administrator wants to know what Prof X did in summer 2010.

## 2.3 System Boundaries

The system boundaries of MRS are documented in figure 2.1.



**Figure 2.1:** System Boundaries of MRS

## 2.4 User Views

The user views for the MRS database are given in table 2.1.

Data	Access Type	Schedule	Workload	Time Recording	Course	Service
Department	Maintain	—	—	—	—	—
	Query	X	—	—	—	—
	Report	X	—	—	—	—
Professors	Maintain	—	X	—	—	—
	Query	X	X	—	—	—
	Report	X	X	—	—	—
Lecturers	Maintain	—	—	—	—	—
	Query	X	—	—	—	—
	Report	X	—	—	—	—
Lecture	Maintain	—	—	—	X	—
	Query	X	—	—	X	X
	Report	X	—	—	X	X
Event	Maintain	X	—	—	—	—
	Query	X	—	X	X	X
	Report	X	—	X	X	X

**Table 2.1:** User Views

## 2.5 User Stories

This section describes the user stories from the university administrator's point of view.

### 2.5.1 Department

#### 2.5.1.1 Maintenance

In order to manage departmental roles as a university administrator, I want to create, read, update and delete (CRUD) departmental data.

#### 2.5.1.2 Querying

In order to plan departmental workloads as a university administrator, I want to query departmental data.

#### 2.5.1.3 Reporting

In order to publicize workloads, schedules and tasks as a university administrator, I want to create reports on departmental data.

## 2.5.2 Lecturers

### 2.5.2.1 Maintenance

In order to schedule and assign tasks as a university administrator, I want to CRUD lecturer data.

### 2.5.2.2 Querying

In order to plan individual lecturer tasks as a university administrator, I want to query lecturer data.

### 2.5.2.3 Reporting

In order to inform every lecturer about their tasks for the semester as a university administrator, I want to report on lecturer data.

## 2.5.3 Workload

### 2.5.3.1 Maintenance

In order to assign lectures and tasks to lecturers as a university administrator, I want to CRUD workload data.

### 2.5.3.2 Querying

In order to schedule lectures as a university administrator, I want to query workload data.

### 2.5.3.3 Reporting

In order to inform staff about their workload as a university administrator, I want to report workload data.

## 2.5.4 Rooms

### 2.5.4.1 Maintenance

In order to <receive benefit> as a university administrator, I want to CRUD room data.

### 2.5.4.2 Querying

In order to <receive benefit> as a university administrator, I want to query room data.

### 2.5.4.3 Reporting

In order to <receive benefit> as a university administrator, I want to report room data.

## 2.5.5 Times

### 2.5.5.1 Maintenance

In order to <receive benefit> as a university administrator, I want to CRUD time data.



#### 2.5.5.2 Querying

In order to <receive benefit> as a university administrator, I want to query time data.

#### 2.5.5.3 Reporting

In order to <receive benefit> as a university administrator, I want to report time data.

### 2.5.6 Tasks

#### 2.5.6.1 Maintenance

In order to <receive benefit> as a university administrator, I want <goal/desire>

#### 2.5.6.2 Querying

In order to <receive benefit> as a university administrator, I want <goal/desire>

#### 2.5.6.3 Reporting

In order to <receive benefit> as a university administrator, I want <goal/desire>

### 2.5.7 Semesters

#### 2.5.7.1 Maintenance

In order to <receive benefit> as a university administrator, I want <goal/desire>

#### 2.5.7.2 Querying

In order to <receive benefit> as a university administrator, I want <goal/desire>

#### 2.5.7.3 Reporting

In order to <receive benefit> as a university administrator, I want <goal/desire>

### 3 Changelog

Date	Time	Reason	Author (short)
2015-10-01	12:04	Creation	DM
2015-10-01	12:50	Added Mission Statement and Objectives	DM
2015-10-07	09:02	Changed Mission Statement and Objectives	DM
2015-10-13	14:53	Added User View & System Boundaries	DM
2015-11-11	08:27	Changed User Views	DM
2015-11-11	10:50	Changed User Views	DM