| **Project Data** | |
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| **Name** | Time Management System |
| **Project Members** | Luis Urbitsch, Enrico Belgiovine, Emir Mahmutovic, Malte Budig, Connor Schwab, Yael Glaser |
| **Beginning** | 10.10.2022 |
| **Expected Completion** | Week 8 of WS22/23 |
| **Customer** | STC Coporation |

**Purpose**

Provide a Time Management System (TMS) for the small, but growing, technology company STC.

**Background/Motivation**

The company currently has a laborious and error prone system for tracking the working time of its employees. The employees manually have to write their working times in a Microsoft-Excel sheet. This is regarded as unnecessarily effortful for both the employees and their supervisor(s). Planning vacation, reporting sick and documenting duration and purpose of work, should be made a lot easier for a growing company.

**Goals**

Our softwares goal is it, to allow the companies employees, their supervisor(s) and the HR-Department to manage and administrate working times, vacations, sicknesses and special time bookings (e.g. for work on customer projects).

Further we want to provide a centralised software, which can be used to consistently store the accruing data. To make this software as safe as possible, we will only allow login via the company’s VPN and the users individual credentials.

**Stakeholders**

The Stakeholders of the systems are:

- our client: the STC corporation

- our customer: Prof. Dr. Mirko Sonntag

- employees of STC

- the employees supervisor(s)

- the company’s HR-Department

**Tracking the work time**

The employees can register their worked hours every day and send their timesheet at the end of the month. After this transmit, the work times can no longer be changed by the employee.

After one employee sent in their working hours, the software sends a notification to the supervisor, who then can review the submitted times. The supervisor has the ability to reject the submitted hours via the TMS, if incorrect. This process results in a notification for the mentioned employee, who receives a second chance to correct his working times and to submit them.

This process should only take place in the first week of the following month.

**Planning vacation**

Employees can submit plans for vacation to their supervisor, who can accept or reject those plans. Also, the employees are able to delete a planned vacation, with agreement of their supervisor. This needs to happen in form of a calendar so the the supervisor has a general overview.

**Reporting sickness**

Employees reporting sick will be managed by the HR-Department of the company.

The supervisor of the ill employee will be informed of the sick leave by a notification via the system.

Submitting doctors notices through the system won’t be necessary.

**Statistics**

Both, employee and supervisor, should be allowed to see their flex time account (range -100 to +100 hours), status of vacation days (e.g. taken, approved, planned, rejected…), sum of worked hours (monthly) and their off days.

The supervisor also has the possibility to check whether an employee works too much, according to the companies rules and federal laws. Notification for supervisor in this case needs to happen with the monthly review.

**Further Functional Requirements**

* Left over vacation days from the previous year need to be transfered into the new year. Days need to be added to vacation day counter. There is no time limit in which those days (from the old year) have to be taken.
* No work clock. Employee is responsible for putting in the start, end and breaks of his working day
* Supervisor monthly report includes:
  + Date, Weekday, Begin, End, Break, Hours Target, Hours As-Is, +/-, Absence, Comment
* Notification for supervisor if there is more than 10 days left of vacation after the middle of the year
* One supervisor per employees
* Person/Employee/User needs to be able to have several rules/access restrictions -> further description in NFR

**Non Functional Requirements**

1. Look and Feel

* The client had no special wishes regarding the color pallet/style of the application
* Application is only to be in form of a web application.

1. Usability and Humanity
   * No complete user guide is needed. However, short explanation about one function / feature is needed.
2. Performance
   * The application is set to run on one of the servers of the company (not neccessary in this project)
   * The application needs to use central data base as a storage system
   * Application needs to work for approximately 200 employees
3. Operational and Environmental

* As stated above, the application is set to be only a web application which means there is no restriction on compatibilty for the operating systems.
* The development team is free of choice regarding the development language of the application
* Application rollout by the end of this semester

1. Maintainibility and Support
   * Client stated that the server for the data base is not our responsibility
2. Security
   * Username and password as login credentials
   * Types of users needed:
     + Employee -> basic access to only fill in work time, absence time & book vacation
     + Supervisor -> advanced access with possibility to approve vacation days & work times of employees
     + HR & Admin is combined/at the same time -> admin access