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# Introduction

## Problem description

The main scope of the project is to create a web application using JavaEE platform which informs the registered users about the incoming events, helping them to avoid bad weather conditions in case of outdoors activities.

This web application will permit to the registered users to create, update and invite people to the events. The organizer is able to create, update and cancel the arrangements. The calendar permits to the creator of the event to invite other registered users.

In fact the software will allow to organizer to specify more details about the future event like: place, date and whether it will be indoor or outdoor appointment. Furthermore, only registered users can create, delete, update these events and they will have the possibility to invite other people, which can only accept or decline the invitation.

Once the event has been committed every participating user will be informed about forecast condition.

In case of incoming bad weather conditions the system will notify users participating to outdoor events one day before.

## Scope

In order to to guarantee the main functions here below are listed the most important features:

* The system permits only to the owner of the event the creation, deletion, update of the schedule;
* Each registered user can create an event;
* The system is able to send invitations and receive responses from the users;
* The organizer has the complete list of the users that has committed to the event;
* In case of incoming bad weather conditions the system has to notify the forecast situation for outdoor events one day before;
* Only on invitation people can view the details of the event;
* The system provides the forecast for all upcoming events;
* The system has to guarantee access only to the registered users;us
* Only when users are logged in can view own notifications and personal schedule;
* The system has to provide a registration form.

# Glossary

User: a person already registered in the system who is able view notifications, create new events, reply to invitations, view details of own events.

Organizer: is a registered user who arranges an activity, which is the only one who can update and delete an event. Also is known as owner.

Event: is a planned activity with a specific date and place.

Indoor: all activities happening inside a building or under a covered structure.

Outdoor: opposite of indoor.

Invitation: a notification with a specific request to join an event that can be either accepted or declined.

Notification: is an official message sent by the system to the registered user.

Registered user: is a person who has compiled a registration form and is acknowledged by the system.

# Vision

The initial document of the project presents some not well defined point. In order to avoid ambiguities and misunderstandings in the project, we will give our vision to some crucial points from our point of view:

Bad weather condition– in nature there is a large set of bad weather conditions, therefore for humans it is a subjective point of view, i.e. something related to their planned activities, mood, or other sort of factors. Considering these premises the application shall provide to user when creating an event the opportunity to define what bad weather conditions are.

One day before – usually for people this concept is perceived as 24 hours before a given event, this concept will be used in this project as well.

Event creation – a registered user can create an event at least 24 hours before its occurrence.

Notification – are sent immediately after the event creation and no further invitations can be added.

Place: to avoid ambiguities in this case the owner will provide unique identification of the event's location, e.g. zip code.

Modification of the event – in case of one of important fields have been modified (e.g. location, date), the notification shall be sent to all originally participants.

Overlapped events – an user can create an event only if he isn't participating to any other scheduled event at that precise time, i.e. creation only of synchronously disjointed events are permitted.

Acceptance of the event – once an invitation has been either accepted or declined no additional modification is possible.

Calendar – Gregorian.

# Proposed System

As has been stated in the introduction and in assumptions our web application is conceived to be able to allow people to see their personal calendar and the incoming arrangements.

Each new user shall to register through a very simple registration form, in order to be acknowledged by the system. Every user, after logging into the application, will be able to:

* In first place to interact with the personal calendar creating, updating or deleting their personal event through a simple user interface;
* Secondly to retrieving information about forecast conditions in the period of incoming event;
* Eventually to see the invitation notifications
* Finally thanks to this system users will be able easily to link other people to programmed events.

# Domain

As start point for gathering requirements and creating specifications, Jackson-Zave model has been chosen. This approach helps to identify the main interactions between the world and the machine, in our case registered users or weather forecast and the web application respectively.

The intersection of two domains will give an idea of the shared phenomena, e.g. personal account

Identifying stakeholders

The main stakeholders of the project is Politecnico of Milan which is represented by internal committee of professors. The main needs of this project is to fulfill all requested requirements respecting all deadlines. Furthermore we have to exhibit all stages of the project throughout of the development process.

The other stakeholder is our development team which is focused on (is really into/ be concerned) delivering a high-quality web application. In addition we are concerned with acquiring main soft engineering techniques. Besides what has been stated before, our team is interested especially to get a good mark for the university career.

Finally the main intention is to provide an ease-to-use software, that will accommodate user experience and fulfill all requested needs.

Identifying actors

In this system under consideration, there are basically two main actors:

* Registered user: a person acknowledged by the system, has access to all application's features such as creation, deletion, update events and check up signed up arrangements and their relative weather forecast.
* Weather forecast: an external service which provides an analysis of the state of the weather in certain area and date.