**Third Semester Project**

**Holiday Home system**

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### Introduction

The Semester Project is the project that ties together the two main topics this semester.

* Programming (flow 1-3)
* System Development (a 3 week period starting November 6th. This topic has its own exam based on a report on theory and practice during the semester project)

Here follows an open-ended case description. Note that the requirements may change during the project as the customer identifies new needs. Or existing requirements may change.:

### Case and overall requirements:

The company *Danish Vacations* rents out holiday homes. We have several holiday homes that visitors can rent. We want to create a system to rent out the houses.

We have decided additionally to create a Web/Mobile app for a system, that allows users to upload information about *Interesting Locations* complete with images, address, description, rating etc.).

We have decided this since we found that many of our visitors are exploring the areas around their holiday homes, and wish to share their favourite locations with others.

So one part of the system we need is a way for users to find, and add locations. The users should be able to add 1 review of their own newly created location. But other users searching and finding an interesting location should be able to add their own reviews.

Furthermore, we think we can use these locations as a marketing tool. New potential visitors may want to rent a holiday home near one of these interesting locations. Thus we want users to be able to browse interesting locations, and then see what holiday homes are available nearby. And if any holiday home is nearby, available and not booked out to someone else, the user should be able to book the desired holiday home. The system should also the other way around make it possible to find interesting locations near the rental houses.

### Requirements details:

You have previously in CA-3 made some initial “proof of concept” experiments to remove technological risk and provide a better background for the coming task estimations. The purpose now is to create a complete and coherent, stable system.

A Web/Mobile app, for a system with information about rental houses (adress, images, price, description, availability, rating) and interesting locations and their ratings (image, address, description, rating).

*The WEB-app (Done with react)*

* *All users can see houses to rent*
* *All users can see existing locations and their ratings. Search for specific locations, filter/sort in list of locations etc.)*
* *All users can see locations near rental houses*
* *All users can see rental houses near locations*
* *New users can register*
* *Registered users can book available Holiday Homes*
* *Registered users can rate a house*
* *Registered users can add new locations (image(s), address, description, rating)*
* *Registered users can rate (preferably only once) existing locations*
* *Admins can see (add/edit/remove) all users*

*The Mobile-app (React-native)*

* *All users can see existing locations and their ratings. Search for specific locations, filter/sort in list of locations*
* *Registered users can add new locations (image,* ***GPS-location****, address, description, rating)*

#### *Holiday Home System*

This is the part of the app where users can rent a holiday home:

* *Admin can add houses/available periods (adress, images, price, description, availability)*
* *Initially this system should only handle weekly rentals given by a week-number*
* *Ability to search for and rent via a REST API from: 1) the Web-client, 2) the App-client*
* *Must have a “fixed” JSON/REST interface that will allow other apps to use/reserve houses through the Rest endpoints*