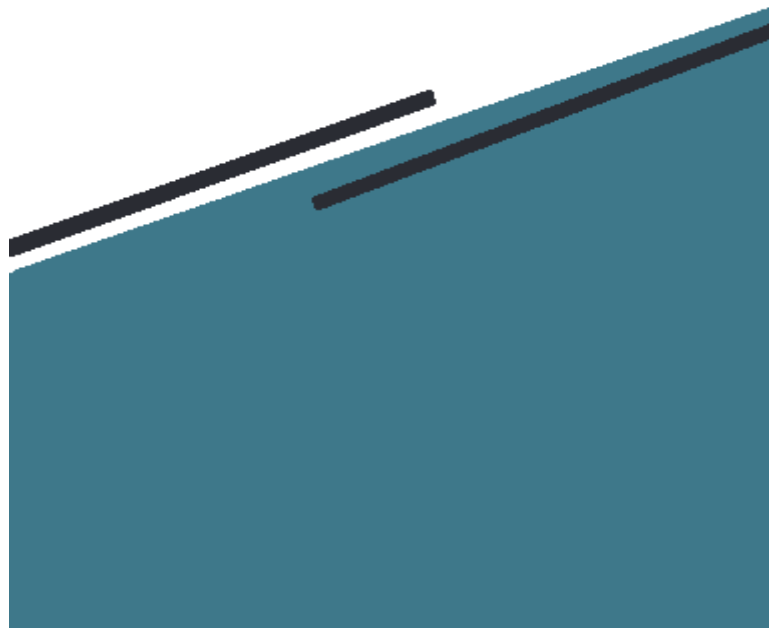


Fontys Student Housing Application



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Subject: ADA Group 1

Project Name: Software solution for student houses

Foreword

This project report contains the information for the student housing project that was started on 19 May 2020 and lasted for 6 weeks. This project was the last project for the “Beginners phase” at Fontys Hogeschool HBO-ICT English stream.

This project helped me take the information and theory I learned in class over the first semester and put in to practice. I really happy I took this course as it is something I like to do.

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Background

The company we are making the application for is “Student Housing Company”. The company rents houses and rooms for student to live in. They have multiple houses in the country and every house has different rules, tasks and tenants.

The company wanted to have a better way to organize and manage their tenants in their student homes. As at this moment they use outdated ways to keep track and manage their tenants.

Assignment Overview

This project started because the company wanted to have a way to better manage their tenants in their student houses. Before the beginning of the project the company used other means to manage their houses for example: Microsoft excel to keep track of the tenant’s information and keep track of the tasks list. This took lots of time to manage and there were many errors in their work for example: When the house Admins should redistribute the house tasks among the tenants there were a lot of errors and it took a lot of time. The company also mentioned that they had some complaints/questions from student about how they should handle the costs of cooking together and that its quite hard to keep track of general products bought between the students like toilet paper and dishwashing soap. The company also wanted a way for students to make complaints (either anonymously or with the tenant’s name add) to the company.

This projects purpose is to help the company manage their tenants in a better way that takes less time and creates less errors by validating input. The program is also making the task distributing system automatic so that the admin doesn’t need to waste time or make small errors when doing this task. Additionally, we have a functionality in the program is to solve the money management between student by making a functionality to add bought products to the application and add other tenants who should share the cost of the products.

Process and Results

Before we started to code anything, we began to think what a student house needs and why. Lucky one of our group members lives in a student house so we had some great ideas to begin with. We split up the tasks we thought were the best to implement in our program.

The first task I worked on was the task distribution system. I used a list to keep track of my tasks, every task has a unique name, due day, a completion Boolean and a tenant responsible for the task.

Every time a new task or tenant is added to the application the tasks gets redistributed among the tenants. When its 12pm on a Sunday night the tasks get new tenants and due days (Showing the new tenants whom is responsible for the task and on what day it should be completed) The Admin could also view the following week by a click of a button if it is needed. Every task has a Boolean

value to show if a task is completed or not, the tenant who need to complete a certain task could select a task from the tenant form and mark it as complete. The other tenants could also see when another tenant completed his/her task. When the due day of a task is reached e.g. The set due day for the kitchen is on Wednesday night the task gets marked in red and each house could set their own rules for task not being complete e.g. pay every other tenant a euro.

Secondly, I worked on the events functionality. An event is something one tenant could add the list when they want to organize in the house like a small party with a few friends on Friday night, the other tenants could “Reply” to the event with a agree/disagree if they feel like the event could happen or not. The event is their own class with an ID as a unique parameter, a name of an event the description, date of event, and tenants whom agree or disagree to an event. The events are saved in a list in the student housing class. Only the tenants can view the events.

Lastly, I added Admin announcements. This function makes it possible for the admin to talk or make announcements to the tenants. The announcements are saved in a list and they have a unique ID and topic and a description. The admin could also delete announcements.

We later changed the design of the application to a more modern look instead of the old, outdated way the visual studio applications look. And it gave a whole new feel to the application.

Conclusions and recommendations

In the end of this project we as a group are happy that we succeeded in solving the problems that the company asked for and that we fulfilled more expectations then suspected. We added a way to manage the tenants in an easy way. We made the task distribution automatic, made it possible to complain to the admin anonymously or not. And add events for the tenants to arrange between them. Lastly me added a way for tenants to share the general costs for house hold items like olive oil and black bags.

And by changing the design of the application you get a whole new feel, as if you made a new application. Later we could make a way for the application to work on mobile phones as student usually have a phone on their person.

Evaluation and reflection

As a student programmer I’m quite happy with what I have done in this project and as a group. I worked really hard I’m happy. My programming experience improved a lot over the last few weeks. I learned new methods when I googled some problems I had I’m my code and learned a lot thought google and my group mates.

With this project being my first real group project, I learned quite a lot about myself and how groups work. One weak point I found in myself was that I would rather do all the work on my own to know that everything is done and working and that my trust in others are a bit low even though its not their fault. I need to trust people more that they would be able to deliver their highest quality work they possibly could.