**Digital Homeowner Documentation**

**Course Project**

**CSCB516 Самостоятелна работа: Програмиране с Java**

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**Overview**

This is a web application for managing a homeowner service. The front end is built using bootstrap (HTML, CSS, JS). The back end is built using Spring Boot.

The application consists of several main sections which are described below.

**Header**

Contains links to the various sections of the application. Header is always displayed at the top.

**Home**

You can see two buttons at the top, which send you to ‘Register New Building’ and ‘Manage Employees’ sections.

You can also see a list of buildings:

* If no buildings have been created you will see a message : *‘There are currently no buildings to manage.’*, along with a link to the ‘create building’ section.
* If there are buildings you will see them listed in order of creation, along with their address and manager:
  + If there is no manager you will see a message *‘Building has no manager*’
  + If there is a manager you will see his last name.

Clicking anywhere on the building information row sends you to the ‘View Building’.

**Register New Building**

Here, you can see multiple fields which you have to fill in order to create a building. These include: (with FE verification)

* Address (non empty string)
* Floors (integer, >1)
* Apartments (integer, >0)
* Building Area (double >0) (measured in m2)
* Common Area (double > 0) (measured in m2)
* Amount to pay (double > 0) (measured in dollars)

You can see an ‘Add Inhabitant’ button, which adds an empty ‘Name’ Field, along with a ‘Remove’ button.

You can see a ‘Submit’ button, which submits the form and creates the building.

You can also see a ‘Back’ button, which brings you back to ‘Home’ section.

**View Building**

Here, you can see information about the building and its manager.

Building information:

* Building ID
* Address
* Floors
* Apartments
* Building Area
* Common Area
* Payroll
* List of inhabitants:
  + if there are no inhabitants, you will see a ‘*Building has no inhabitants. Edit to add.’* message.
  + if there are inhabitants, you will see a list with their respective names, along with a link to Edit them.

Manager information:

* If there is no manager you will see a message *‘This building has no manager.’* along with a link to the ‘Manage Employees’ section.

You can also see a button to edit building. And, based on manager existence - a button to edit the employee.

You can also see a ‘Pay’ button, which leads to ‘Payment’ section.

**Payment**

Here, you can see a form with a single dropdown - the month for which the building is going to pay. Months are displayed as integers - from 1 to 12.

There is a submit button, which submits the payment.

It is important to note that a building can pay for a single month only once. The next time the user navigates to the Payments screen, the month will no longer be part of the dropdown.

**Manage Employees**

You can see a single button at the top - ‘Add New Employee’, which brings you to the ‘Add New Employee’ section.

You can also see a list of employees:

* If no employees have been created you will see a message : *‘There are currently no employees to manage.’*, along with a link to the ‘‘Add New Employee’ section.
* If there are employees you will see them listed in order of creation, along with a link to Edit them.

**Add New Employee**

Here, you can see multiple fields which you have to fill in order to create an employee. These include: (with FE verification):

* First Name (non-empty string)
* Last Name (non-empty string)
* Age (integer >0)
* Gender (preselected), can be M, F or Other
* Buildings to manage (checkboxes):
  + if there are no buildings to manage you will see a message *‘There are no buildings to manage at this point.’* along with a link to ‘Register New Building’ section
  + if there are existing buildings you can see them listed as checkboxes
    - if the building already has a manager - it will be disabled
    - if the building does not have a manger - it will be enabled (clickable)

There is a submit button, which submits the information from the form.

**Edit Building, Employee, Inhabitant**

These sections are identical to their respective ‘Create/Register/Add’ sections. The difference here is that they come prefilled with the entity’s information.

Section specific functionality:

* Edit building:
  + You can see an edit button next to every inhabitant.
  + Delete button - You can delete the building. This also deletes all inhabitants registered to it. Does NOT delete payment entries for the building
* Edit Employee:
  + Delete button - You can delete the employee. This removes the employee as manager on (if any) all buildings.
* Edit Inhabitant:
  + Delete button - Deletes the inhabitant.

**Statistics**

Various statistics about the digital homeowner company are displayed:

* Total serviced buildings
* Total serviced apartments
* Total serviced inhabitants
* Company employees
* Company expected monthly income - based on all buildings payment rate
* Company current balance - all payments sum

There is also a payment history:

* If there have been no payments done yet the user will see a message *‘There are no payments made yet.’*
* If there are processed payments (using the Payment section) there will be a table displaying various data about the payment entry:
  + Building address
  + Date paid
  + Month paid for
  + Amount paid