

**GRADUATION / INTERNSHIP REPORT**

**FONTYS UNIVERSITY OF APPLIED SCIENCES**

**HBO-ICT: English Stream**

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| Title: | **Greeting Application** |
| Date: |  |

Approved and signed by the company tutor:

Date:

Signature:

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# 1 Introduction

## Company

GameHouse BV Europe, is a casual game development company with headquarter located in Eindhoven, the Netherlands and three other sub-branches in Utrecht, Alicante and Barcelona. Currently there are more than 150 employees are working in GameHouse. One of the visions of this company is to develop and distribute casual games among people in more than 14 languages across the globe. There are two main departments in GameHouse, Service side and Studio where both are committed to work toward the vision of the company. The studio is responsible to create and develop games and service side is the link between the games and the target audience. Taking care of websites, social media, growth in fans, user-interactions are some of the responsibilities of the service side.

This assignment belongs to service side of the company. This report contains development phases of a website to welcome external people to GameHouse. The company would like to have a greeting system to welcome visitors to the company. Launching this application will allow the visitors to navigate through the company and find theirs target person in GameHouse without disturbing an employee during working hours.

To create this system, this project incorporated researches where we can divide it to two main parts, frontend and backend. DOT framework is used throughout this research. Scrum, is the leading methodology among the teams in GameHouse. This project developed using scrum as well, therefore, researched occurred several times during development of this project.

This document explains the research and process in building this system to help visitors to navigate in the company and welcome them to GameHouse. Reader will be able to find information about the current situation, research phase of the project, process, decisions in subsequent chapters. in this report, chapter 2 covers the overall information about the current situation, problem domain as well as desired situation. Chapter 3 goes in depth to discuss the process of this assignment and the result at the end. Chapter 4 represents conclusions and recommendations for the project and the end you will find the list of the tables and figures used in this research as well as references.

## Organization chart

Armin roshan

Intern

Sam Lasaroms

Fomal client

Janet Damen

Fomal client

Ellya Aisyah

Project leader/Mentor

# 2 Assignment Overview

## 2.1 Current Situation

On daily basis, there are number of visitors coming into GameHouse during working hours. Currently, there is no system in the front door that helps visitors to navigate or find their target employee, neither a secretary who could help external people in this aspect. Definition of visitors from stakeholder’s view is someone who is not an employee of this company such as postman, fans, external people who have an appointment with of the staff in the office. Visitors should wait in the front door for a considerable amount of time until one of the staff notices his/her presence or they should walk into an employee to ask their concern.

Having said that, welcoming the visitors to the company is not done in a pleasant way and this cost employee disturbance as well as confusion for visitors.

Overall, we can describe the current situation as not having a system to guide the visitors into the company as well as employee disturbance during working hours and visitor’s confusion as soon as they enter the company.

## 2.2 Problem Domain

As its explained in the current situation, welcoming external people to GameHouse is not done in a pleasant way. Having no system or secretary at the front door does not represent the open culture of this company.

Welcoming visitors without a greeting system brings to the company to the following issues:

* Employee distraction during working hours.
* Visitors confusion.
* Time waste at the front door.
* Not representing the open culture of GameHouse.

## Objective

Lake of a greeting system external people and visitors is leading to disturbance and confusion problem. Therefore, initially required to develop a website. Below there is list of objective with regard of this project.

* A website
* Chat Functionality
* Slack Application Program Interface (API)
* Content management system (CMS)

GameHouse, prefers to have an in-house built greeting tool to overcome the mentioned problems. Developing a system with such a functionality will help visitors to feel welcomed when they enter GameHouse.

## Project Constraint

Below is a list of constraints of this project:

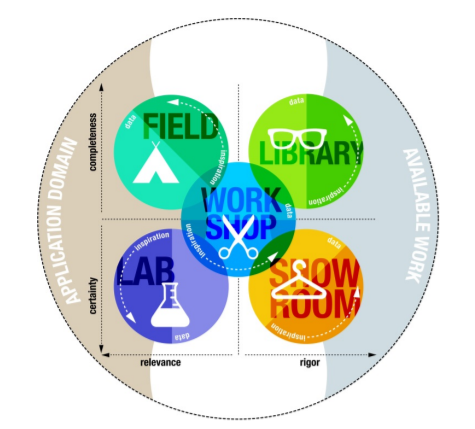
* Angular 2 must be used to develop this website.
* NodeJS is used for implementing the logic of the website (Backend).
* Website should be ready before July 20th.

## Approach

### Research methodology

The research methodology used throughout this project, is DOT (Development Oriented Triangulation) framework. This methodology is used for all the research questions.

In the figure2.1 you can see the Development Oriented Triangulation.



DOT framework identifies five type of research approach which is listed below:

Library: Setting constrain a collection of methods which enable the researcher to obtain insight into the relevant, available work. Online research, books, article is few examples of this method.

Field: This method, usually borrowed from interpretive social science. Field, aims to capture the context of design.

Workshop: this method introduced as a method which aim to improve the developed solution without a direct reference to the domain of application as well as designing the program based on library and field.

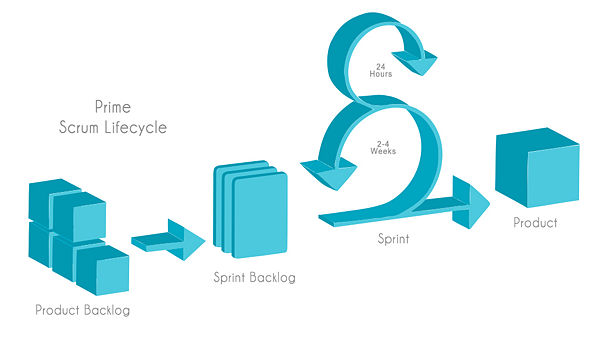
Lab: This method is described as a cover method that aims to reach empirically grounded conclusion about our application. This includes, user, performance and integration test.

Showroom: This method is used to help us make projects more reusable by other researchers as well as demonstrating the result to the client.

### Development methodology

Scrum is an Agile framework for completing projects. This methodology is originally formed for software development projects. This approach will cut through complexity to focus on building software that meets business needs.

Agile scrum is the leading methodology among the teams in GameHouse. This framework is used for effective team collaboration as well as to overcome the complex tasks in the project.



# 3 The Process and Result

This project carries out the process of this project from beginning to end. The process of this project starts with research. Answers for research questions are described in this chapter followed by implementation phase of the project and reasons for choosing the frameworks, tools and finally, the result of this project.

## Project initiation

## research questions

In software development understanding a problem domain is the most important aspect of the development to provide a suitable solution. Research in depth is a necessary to understand a problem domain of any project. To find the best solution some questions is need to be answered. These answers will lead you to compare the options and choose the one which suites the best for the project.

Below you will find answers to some of the research questions regarding the this project.

1. What is a greeting system?
2. What are the benefits of this system for the company?
3. Is a website the most suitable solution for this problem? Why?
4. What frontend framework suits the best for this project? Why?
5. What backend framework suites the best for this project?

The DOT framework is a guide used to tackling these research questions.

1. What is a “Greeting System”?

Greeting system is an application where normally is placed in the front desk of an

office. Greeting system is designed to guide the external people to the office.

1. What are the benefits of this system for the company?
2. Is a website the most suitable solution for this problem?
3. What frontend framework suits the best for this project?
4. What backend framework suites the best for this project?

## Implementation and choices on tools

This project was designed and developed with no restrictions on tools and libraries. Stakeholders and product owner gave the freedom of choice in using tools which fits the best for the development process.

## Tools

Definition of tools in this report are the software that supported developing this project. In the research phase, some of the following web-development tools were considered to start with.

Below is the list of software solutions:

* **WebStorm:** JetBrains WebStorm, Integrated Development Environment (IDE) is used for client-side and service side. This lightweight and powerful IDE helps you to write code better and faster, smart error detection and intelligent codding assistance will allow developers to detect errors faster during development.

This IDE, provides support for the JavaScript, Node.js, HTML, CSS as well as supported frameworks such as AngularJS, react, Meteor.

WebStorm, has a built-in UI for working with Version Control System such as Git, SVN. You can simply use the terminal to manage your project on Git.

Testing and debugging is one of the most important part in software development. WebStorm, uses a powerful debugger for Node.js and JavaScript.

This IDE has some other features such as integration with Jest and support for Vue.js as well as Standard Style which can reformat your code according to Standard Style. These additional options will give you much flexibility during development.

Below you can see a screenshot of the application.

* **Atom:** This IDE is described as a modern text editor, where you can customize it to do anything but also use productively. Which means this IDE contains features such as cross-platform editing, file system browser, built-in package manager as well as smart autocompletion to make the development more time efficient.

Atom is an open source application, being part of open source community will allow developers to contribute and improve the editor.

Atom IDE, is used world wild among the web developer and has a great community and support.

To insure, that the code is easily maintained and keep it clean and tidy WebStorm IDE is used to develop this application. Automatic refactoring the code by performing functions such as extraction of variables or moving files are the factors to choose this IDE to be the development environment for this project.

Below you can see some comparison of these two Integrated Development Environment.

|  |  |  |
| --- | --- | --- |
| Features | WebStorm | Atom |
| Error detection | Yes | Not accurate |
| Auto Complete | Yes | No |
| Git Support | Yes | Yes |
| Code template | Yes | Yes (Plugin) |
| Free download | No | Yes |

* **Jira:** this tool is one the most common tools used among scum teams. This tool used to bug tracking as well as issue tracking and project management. The name “Jira” is coming from a Japanese word “Gojira” which mean Godzilla.

This tool is used in GameHouse among all the teams in game house. Using Jira will allow the team to configure workflow, managing sprints and estimating the task which will be assigned to members.

* **Slack:** This software is one of the most common communication tools among the tech companies. Slack, allows its users to communicate individually or in shape of a grouped chat (channels).

Channels are created in slack to organize the team conversation among the members. To aim that everyone has a transparent view of all that is going on. For some confidential and sensitive information, you may create a private channel and invite a few team members.

Slack is the main communication tool among the GameHouse employees. A channel is crated for each team to ensure that everybody in the group will get an update of the project they are busy with.

* **Ng-Bootstrap:**
* **Angular Material:**
* **MUI:**

## choices on framework

* Angular 2:
* ReactJS:
* Spring Boots:
* Node.js:

## Testing

## Result

# 4 Conclusion and Recommendation

## Evaluation

## Reference