

Project Description

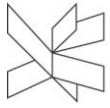
Fresh Fitness

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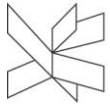
Background Description

Humans have always sought to find the ways that make life easier. We have supermarkets, we use public transport and communicate via our phones. All these inventions share one common thought, which is to make life easier for us. Back in the stone age physical strength and stamina were vital for the survival of the human species. In order to hunt, travel and deal with the hardships of life being physically fit was important (History, 2018). Nowadays, physical activity is primary happening in the gym and for sports. Physical activity is a trend today because people realize how important it is to be active and have an environment where they can be active without being disturbed by the weather (Telegraph, 2014).

Fresh fitness is a fitness chain that wants to offer people the best equipment's and facility in order to help people maintain their active lifestyle. FF, wants to expand their brand and reach out to everyone in Denmark. They have decided to build a new center in Horsens, and they want to connect its member for events in their centers throughout Denmark. In order to reach this goal, they want to build a subscription platform where the customers are able to sign up for different workout sessions throughout all the Fresh fitness centers in Denmark. For users to be able to register for all events they need the subscription for all centers. On the other hand, the user with the subscription of the local center is only able to register for events, at that center (Activenetwork, 2018).

Currently, fresh fitness does not have a platform in place that offers their users a convenient way registers for workout sessions and track the members that are attending these sessions. Tracking the sessions and members is now by pen and paper, which is big time waste for the employees and difficult for the members keep track of.

Given the obstacles fresh fitness faces, a new software system is needed. First and foremost, they need to make a system where admins can register members and create workout sessions. Secondly, the users must be able to see the sessions available and be able to join. Lastly, fresh fitness must be able to manage the sessions and members and keep track of the members joining each session.



Purpose

A fitness-based registrations system where the users are able to keep track off and join different workout sessions depending on their subscription.

Problem Statement

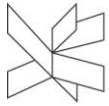
The overall challenge is to create a system where users can have their own profiles, join workout sessions and keep track off upcoming sessions. The admin should be able to manage all this. This requires a lot of data to be transferred, stored and shared. The system will also be a distributed heterogeneous system. The system's components will be located on different networked computers, which then can communicate and coordinate their actions by passing messages. Furthermore, a client-server-based system needs to be implemented, which will use different languages.

Questions to be answered are the following:

1. How will the system be designed?
2. How will the system, which are coded in different languages be able to communicate?
3. How will the system be maintainable?

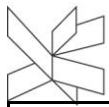
Delimitations

- The users will not be able to look at other users' profiles(privacy)



Choice of model and method

What? Partial problem	Why? Why study this problem	Which? Which models/theories are expected to be used to solve the problem?
How will the system be designed?	<p>The interaction between different languages and the distributed part of the system.</p> <p>The reason to study this problem is that it is an obstacle that hard to overcome, due to the fact you have a system that has two components that are build using different languages.</p> <p>Furthermore, the distributed part of the system is also a challenge to design. Which architectures and design patterns will be used?</p>	<p>When design the system is important that is done in an efficient and structured way. Most importantly that the system should also be designed so that it is maintainable.</p> <p>To do that using UML diagrams to make the system more structured will be used. Along the UML the SOLID principals will also be useful for creating a strong design. Furthermore, the architectures and design patterns used is also important.</p> <p>To store all this different information, some sort of database would be very efficient. In this case, a database made in software programs such as PostgreSQL/pgadmin4 could be very useful, since it is easily transferable to Java.</p>
How will the system, which are coded in different languages be able to communicate?	<p>These different components need to share different data and messages with each other. The data also needs to be leak proof.</p> <p>How will they be able to communicate through webservices? How will they languages be translated to understand each other?</p>	<p>To accomplish this webservices like .net will be used. Furthermore, the parts using different languages needs to translate using XML.</p>



How will the system be maintainable?	The system must be easily extended and maintained later. Furthermore, the system should be ready for the organization's own management, without any bugs or complications.	Using UML diagrams to make the system more structured and designing the system. Along the UML the SOLID principals will also be useful for creating a strong design. Furthermore, the architectures and design patterns used is also important.
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Time schedule

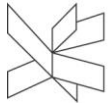
Total work time: 825 hours

Total work time per students: 275 hours

Deadline: week 51 19/12-2018

Risk assessment

Risk categories	Probability	Impact	Effect	Response
Group member gets sick	Medium	High	Reduced quality of the project. Higher workload for other members.	Redistribute group work.
A member breaks the group contract	Medium	Medium	Wasting the groups time.	Warnings or expulsion from group.
Not attending group/SEP meetings	Low	High	lack guidance/help from supervisors. Reduced quality of the project.	Use the given resources on studynet. Sending mails to supervisors. Plan new meetings.



Sources of information

History, 2018, Stone Age [Online], Available at:

<<https://www.history.com/topics/pre-history/stone-age>> [Accessed 20-09-2018]

Telegraph, 2014, Fitness fanatics: Why are all my friends suddenly 'training' like they're professional athletes? [Online], Available at:

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ActiveNetwork, 2018, The Top 10 Benefits of Online Registration for You and Your Participants [Online], Available at:

<<http://www.activenetwork.co.uk/event-management-resources/articles/top-10-benefits-of-online-registration.htm>> [Accessed 20-09-2018]