

Project Description

Chat system

Group 10, IT-SDJY2-S16

Mario Burgov (240303)

Edi Trifonov (240319)

Titas Jackus (240373)

Daniel Borisov (240001)

Supervisors

Steffen Vising Andersen

Henrik Kronborg Pedersen

April 2016

Project Description

Background description

To communicate is a human thing. That's why from messages carved into stones to the latest chat apps, humans have always been finding better ways to communicate between each other. Technologies have improved enormously during that big span of time, which makes it a lot easier for us to communicate nowadays.

Nowadays companies tend to get bigger and bigger and people's time has become really precious. That's why they need a good way of communication between their employees. Members of certain companies have to communicate between each other countless times every day during their work which makes it a hugely time consuming task.

There are a lot of different ways to solve that problem right now but not every one of them is good enough. Emails lead you to write a letter-length reply, and video calls can be frustrating to schedule as a face-to-face meeting. Chat, on the other hand, only requires a tiny message, one that's far more likely to get answered than your full emails since it's so easy to reply, but still doesn't require everyone to be chatting at the exact same time. Lastly, giving your employees phones so they can communicate between each other just costs a lot of money that could be otherwise spent for something else.

Some of the problems with already existing systems are that there might be a chance that not all users will know how to use the software especially if it attracts people from an older generation, not all users will like the software – those who are not computer savvy will probably not be too fond of it, the software might have some exploits or it might go down which will highly impact the work of companies.

Purpose

The purpose is to create a chat system that can provide a way of communication between members of a company.

Problem formulation

Questions to be answered are the following:

- How to make the system scalable – e.g. a lot of new people are connected to the server?
- How to make data available for download?
- How to make the system maintainable?

Delimitation

- *The chat system will only include messages and no pictures.*
- *There will be no voice calls but only sending messages*
- *There will be no encryption in our system because it's a closed one.*

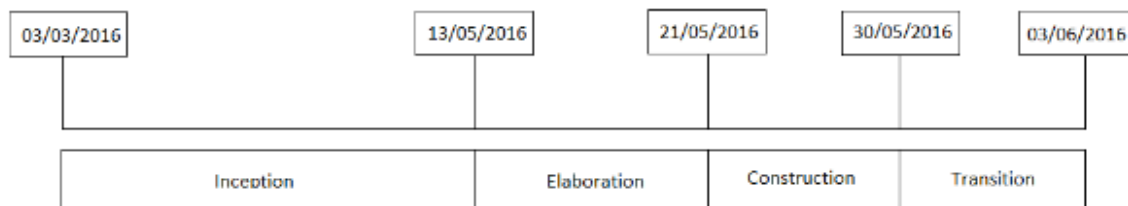
Choice of model and method

The choice of model and method procedure must be carried out on the basis of the problem formulation. Insert the problems in the table below. You must systematically describe which approach to take.

What Partial problem	Why Why study this problem?	Which Which models/theories are expected to be used to solve the problem?
How to make the system scalable?	Program structure independently of number of sources	UML class modelling and class diagrams for a large scale system with the ability to be used in small scale. Design patterns.
How to make data available for download?	Main feature that the administrator would need.	Use case modelling and class diagrams for admin. Database access from admin.
How to make the system maintainable?	Database will get overloaded with a lot of information	UML class modelling for a large scale system and proper maintenance of database.

Time schedule

The time scope is estimated at 115 hours per person (460 in total). The project is developed using AUP as method. The time schedule is based on a Phase plan as global planning of the project and SCRUM will be used as framework for controlling the project and each sprint will contain several of the AUP disciplines.



Inception phase is from 03/03/2016 to 13/5/2016, and final deadline is 03/06/2016. Between 13/5/2016 - 03/06/2016 we have three phases: Elaboration, Construction and Transition.

References and expected sources

Observer Design Pattern. (n.d.). Retrieved April 7, 2016, from [https://studienet.via.dk/Class/IT-SDJ2Y-S16/Session Material/SDJ2-S16-11Observer.pdf](https://studienet.via.dk/Class/IT-SDJ2Y-S16/Session%20Material/SDJ2-S16-11Observer.pdf)

Adapter and proxy. (n.d.). Retrieved April 7, 2016, from [https://studienet.via.dk/Class/IT-SDJ2Y-S16/Session Material/SDJ2-S16-09AdapterAndProxy.pdf](https://studienet.via.dk/Class/IT-SDJ2Y-S16/Session%20Material/SDJ2-S16-09AdapterAndProxy.pdf)

Database connection with Java. (n.d.). Retrieved April 7, 2016, from [https://studienet.via.dk/Class/IT-SEP2Y-S16/Session Material/SEP2-Database.pdf](https://studienet.via.dk/Class/IT-SEP2Y-S16/Session%20Material/SEP2-Database.pdf)

swing - Chat Client emoticons window JAVA - Stack Overflow. (n.d.). Retrieved April 7, 2016, from <http://stackoverflow.com/questions/13752188/chat-client-emoticons-window-java>

java - How to include emoticons in chat server - Stack Overflow. (n.d.). Retrieved April 7, 2016, from <http://stackoverflow.com/questions/22993918/how-to-include-emoticons-in-chatserver>

Establishing a Connection (The Java™ Tutorials > JDBC(TM) Database Access > JDBC Basics). (n.d.). Retrieved April 7, 2016, from <https://docs.oracle.com/javase/tutorial/jdbc/basics/connecting.html>

Java TCP Sockets and Swing Tutorial. (n.d.). Retrieved April 7, 2016, from <http://www.cise.ufl.edu/~amyles/tutorials/tcpchat/>

JPanel (Java Platform SE 7). (n.d.). Retrieved April 7, 2016, from <https://docs.oracle.com/javase/7/docs/api/javax/swing/JPanel.html>