Crazy Calendar Party Edition

TTM4100 - Communication Services and Networks

TDT4140 - Software Enigneering

TDT4145 - Data Modeling, Databases and Database Management Systems

TDT4180 - Human-Computer Interaction

Gruppe 7:

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1 Resources

We have 6 persons available for completing the application. Every person has their own personal computer with development tools for the java runtime environment, the postgreSQL database, and the JSON object interface. The budget for our project is limited to the work hours specified in time estimate.

2 Time and budget estimate

Based on the resources we have at our disposal we have made the following time and budget estimates. Since this project is a school exercise labour is free. Nonetheless we have put together a budget consisting of our work hours and a fictive salary of $849,90 NOK$. Making the salary budget a total of $\approx 734300 NOK$. In addition to creating a calendar, we have also been given a separate project in TTM4100 which we have included here, and will take some of the total work time. We have estimated a total monetary spending budget of 0 NOK, because we are using free software and the developers personal computers. It is highly unlikely that we will pay for any new software or hardware during this project.

We have estimated 18 workdays of 8 hours, with 6 developers. This gives us 864 work hours.

3 Deadlines

The absolute deadlines are required from our customer(the exercise) are shown in table 1.

4 Responsibilities

We will divide the responsibility for the completion of the exercise in 4 parts; the database, network communication, client model and client view. There is also a person responsible for human resources, and a union representative chosen democratically by the group. The human resource responsible has taken on him to create a friendly work environment and to plan fun excursions.

4.1 Database

The database will hold every piece of information that the program needs to save over a longer time period. The work is divided as shown in table 2

Tabell 1: Deadlines

Task	Due by date
PU1 Prosjektplan	2.mars
PU2 Systemtestplan	2.mars
KTN Prosjektplan	3.mars
DB ER modell	6.mars
MMI D2.1 og 2.2	7.mars
PU3 Overordnet Design	9.mars
DB2 Logisk databaseskjema	14.mars
MMI del 3	14.mars
PU4 Implementasjon og testing	21.mars
PU5 Dokumentasjon	21.mars
KTN working implementation	24.mars

Tabell 2: Database section and amount of time

Task	*Estimatedhours*
Create ER-diagram for the application	10 hours
Logic databasechema	10 hours
Setup the database server	8 hours
Create the needed structure in SQL	16 hours
Implement JDBC	8 hours
Implement needed methods	16 hours
Total	68 height

4.2 Network communication

Network communication consists of the part of the server communicating with both clients and the database. It is vital that the server can lock resources, and still queue requests from clients. In table 3 we have a look at how many work hours that will be allocated to this part of the system.

Tabell 3: Computer networking work breakdown schedule

Task	*Estimatedhours*
Creating a class diagram	4
Sequence diagram for login, send message from client and logout.	6
A short textual description of the design	2
Play with JSON	6
Server and client login	6
Server and client logout	6
Extra functionality	0-24
System integration	10
Test many clients	4
Overall computer networking separate project	44
Planning server to client	6
Planning client to server	6
Server to clients, Master	10
Server and clients, Threads sending JSON objects to logged in clients	16
Clients to server, Master	10
Clients to server, Check for inconsistency	10
Clients to server, multiple Threads	10
Overall computer networking common project total	58
Overall computer networking total	102

4.3 Network communication

4.4 Client model

The client model can be separated in to several smaller problems that are easier time estimated as parts. The sum of these makes the total time estimate of the clients model as seen in table 4. The model will be written in java, and handle json objects from the server. It will also provide a fully fledged API for the GUI[1].

[1]graphical unit inteface

Tabell 4: Client model time estimate

Task	Estimated hours
Creating login functionality	7
Parsing json objects to model	8
Define model and API structure[2]	12
Create json objects based on the model	8
Creating vital functions and objects	16
Create unit tests	6
Optimize the notify function[3]	15
Sum	72

4.5 Client view

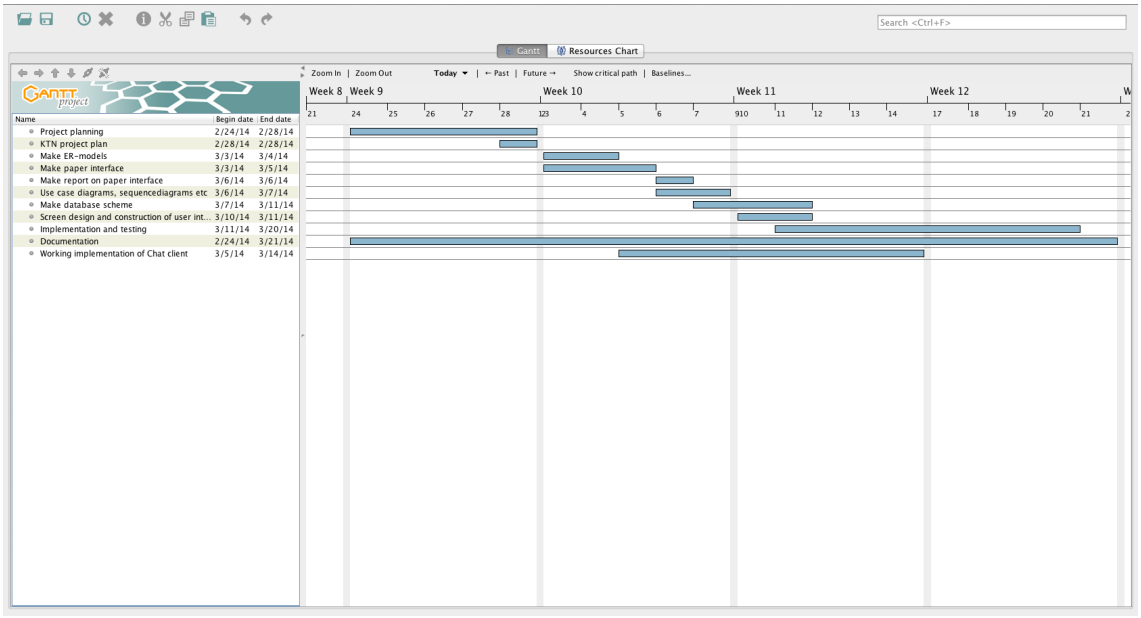
The client view is the way the user interacts with the system. It features an easy to use interface communicating with the clients model. The workload is shown in table 5.

Tabell 5: Time to design the user interface

Task	*Estimatedhours*
Discuss how we want the user interface	12 hours
Designing the user interface using paper models	12 hours
Show papermodel to studass and another group	6 hours
Fix papermodel after feedback	3 hours
Conceptual model	6 hours
Screen design	12 hours
Construction design	12 hours
Make login screen	4 hours
Make appointment view	16 hours
Make week view	16 hours
Other functionality	16 hours

5 Work load distribution as gantt diagram

The work load is shown in figure 1



Figur 1: Gantt diagram