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CUSTOMER DRIVEN PROJECT

# Rock Concert Audience as a Screen

Project Report

Netlight AS

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Agnethe Soraa, Tomas Dohnalek, Jan Bednarik, Milos Jovac  
Project adviser: Anh Nguyen Duc

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# Abstract

This report will give the reader an insight into the details of the design, development and implementation of the task given in the course TDT4290 - Customer Driven Project, taught at NTNU - the Norwegian.

University of Science and Technology. The customer is Netlight and they have presented the group with the task of breathing new life into the console.

Web-applications these days are leaning against a mouse-controlled, web-fronted design. This has taken away much of the efficiency of power users, who have traditionally used terminal applications on a daily basis, and had the system in their fingers.

A hybrid web-fronted/console design would be a possible solution to this problem: The power user can make use of their full potential through a console whilst the objects are presented in the web-interface.

This is a proof-of-concept task, and all research done will be documented and used to argue for and against the solutions used and not used. Everything from the planning of the project startup and preliminary-study to the complete conclusion is described in this report.

The approach to investigate and solve this problem starts with a thorough study of relevant technologies, and how this can be made possible. The conclusion of this study allows us to create a system which showcases the real potential of our solution. Through this whole process we have a close work-relationship with our customer to ensure his desires and expectations for the project are met, and that our conclusions and findings boosts future research in this field.

# Preface

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# 1 | Introduction

## 2 | Planning

## 3 | Preliminary studies



## 4 | Requirements

## 5 | Testplan

## 6 | Software Architecture

## 7 | Tools and strategy

## 8 | Sprint 0

### 8.1 Sprint planning

We have embraced Sprint 0 as a preliminary sprint, when we can set up all necessary collaboration tools, equipment, prepare templates for meetings and mainly to acquaint ourselves with Scrum methodology. The original plan was to finish sprint 0 on 8th of September, but we have decided to terminate it prematurely due to finishing sprint goals in shorter time than we had expected. Other reason for terminating the sprint was desire to start actually working on the product itself.

The actual user stories are listed in table 8.1. Since we started to use the software collaboration tool only during the sprint we did not manage to estimate the time needed to complete each story beforehand and thus the column **Est.** is left empty.

#### 8.1.1 Sprint 0 User-stories

ID	Description	Est.	Sp.
259	I as a developer need to prepare $\LaTeX$ template for minutes, project plan, weekly status report.		5
	Meeting minutes		2
	Project report		2
245	We as a team need to give a project and team name.		2
	Team name		1
	Product name		1
248	I as a developer need to agree on customer, advisor and internal meetings.		2
247	I as a developer need to agree on daily working hours.		1

243	I as a developer need to set up the video conferencing.	2
249	I as a developer need to add goals for Sprint 0.	4
250	I as a developer need to decide which collaboration technologies to use.	20
258	We as a team need to assign roles to team members.	1
258	I as a developer need to write a project plan.	90
258	I as a developer need to research the older reports.	30
258	I as a developer need to summarise the requirements.	4
SUM:		161

Table 8.1: User stories selected for Sprint 0.

## 8.2 System Burndown

Since we managed to establish the proper collaboration tool Target Process 3 only during the sprint the software was not able to generate relevant burndown chart. We at least tried to estimate how much time we spent working on each of the user stories listed in table

### 8.3 Architecture

### 8.4 Implementation

### 8.5 Testing

### 8.6 Occurring risks

### 8.7 Retrospective

#### 8.7.1 Pros

#### 8.7.2 Cons

### 8.8 Evaluation

## 9 | Sprint 1

### 9.1 Sprint planning

After assembling all the tools in Sprint0, we decided to start with the implementation of core modules. As our understanding of task improved, we were able to come up with user stories from the perspective of user, customer, developer and student. All user-stories were given to the customer so they can be prioritized. All but user-stories concerning our student obligations, like writing project plan, minutes, meetings with supervisor and attending lectures. Those were mandatory and already added as user-stories of sprint1. On Monday 02.09.2013. we had the meeting with a customer where we estimated time we need for every user story. The result of that meeting was the list of the rest of the user-stories for sprint1. All user stories for finishing our first prototype were on the sprint1 list so we also agreed date for presentation and showing the running demo - Thursday 12.09.2013. After that ,at a group meeting, we decoupled user-stories into tasks and we were ready to start with the implementation of client-server core module.

#### 9.1.1 Sprint1 User-stories

### 9.2 System Burndown

### 9.3 Architecture

Choosing client-server architecture was very intuitive to do. Our project has user application that depends on commands for what to play, on one side, and application that is responsible of detecting and sending commands to that users on the other. Every application(user) have to be either one or another.

Write about Android NSD, create class diagram,



## 9.4 Implementation

## 9.5 Testing

## 9.6 Occurring risks

## 9.7 Retrospective

### 9.7.1 Pros

### 9.7.2 Cons

## 9.8 Evaluation

Figure 9.1: Sprint1 Burn Down Chart

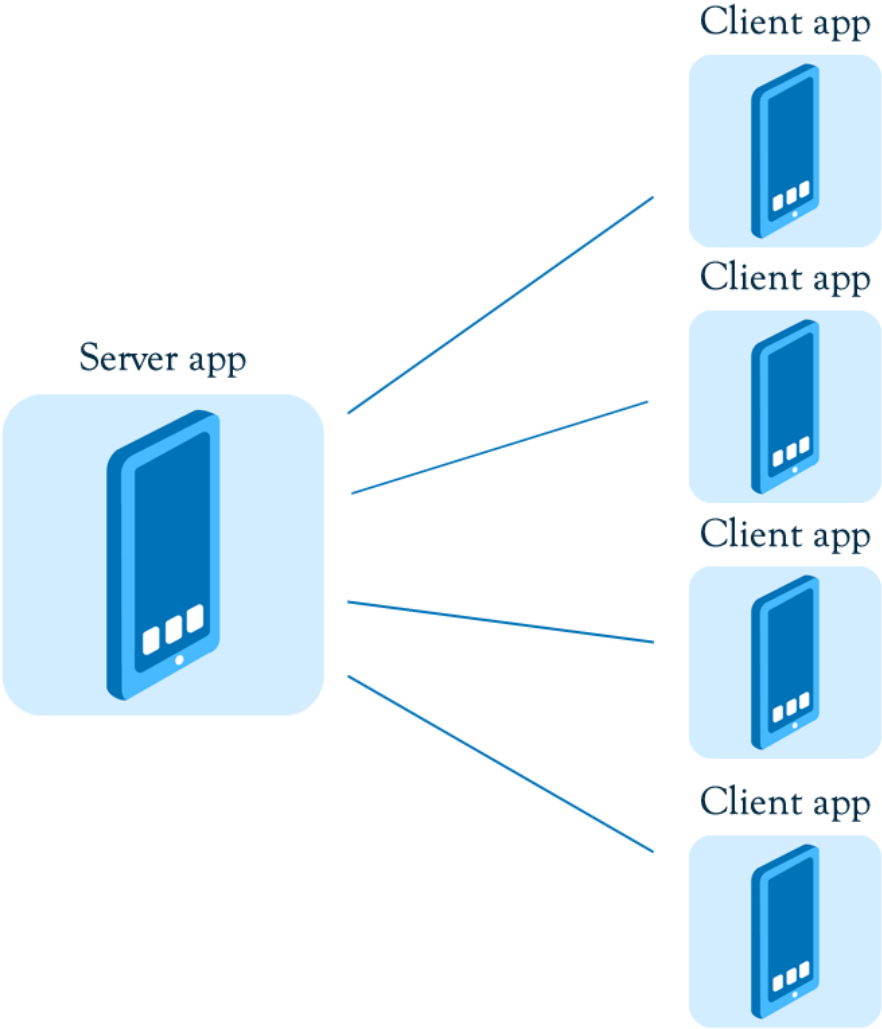


Figure 9.2: Sprint1 Arhitecture

## 10 | Sprint 2

## 11 | Sprint 3

## 12 | Sprint 4

## 13 | Sprint 5

## 14 | Sprint 6

## 15 | Testing



## 16 | Evaluation

## 17 | Conclusion

## 18 | References

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## 20 | Appendix