Metropolia University of Applied Sciences

Bachelor of Engineering

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Final Report

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Open Source Web Kiosk

Final Report

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# Abstract

# Introduction

The main focus of the 4th period in the first year of ICT degree is Network and Security. The course “Unix and Internet Security” has the purpose to educate us on the basics of the Unix operating system with the help of a single-board computer Raspberry Pi. The assignments of the course included an introduction to Raspberry Pi and its setup, weekly tasks for learning Unix commands and a final project.

The idea of the final project was to create a system that displays websites/slideshows and/or photos on a screen in an automated cycle using the Raspberry Pi with the Unix operating system.

In the following report we will give details on the learning process and present the final project.

# Raspberry Weekly Assignments

## Raspberry Setup

## SSH

## User Croups

## Apache

# Project Creators

We are three first year ICT students from the Metropolia University of Applied Sciences Sampo Tuisku, Matias Hynnä and Joosep Teemaa……………..

# Project Idea and Motive

After finishing the weekly assignments, we started planning the final project. First our plan was to create a videogame server that student game developers could use for the help of their studies, but this seemed to be too simple and non-progressive. Here came the idea to create something that small companies and independent non-tech entrepreneurs could utilize in their everyday workspace that was not yet provided in an affordable and easy to create manner. This made the project interesting and challenging.

After investigating and directly asking small companies what they need that we could provide in a simple and free way, we came to a conclusion of building an Open Source Web Kiosk.

Web Kiosk is a system that displays a cycle of information (like websites, photos or slideshows) on a screen automatically without the client having to switch between them by themselves. Many of these systems are already provided but not in a affordable and user-friendly way. We wanted to create this system for the average non-technical user, for it to be user-friendly, easy to configure and free while giving the client more options and better experience.

# Web Kiosk

## Functionality

For the client to operate this system they would need:

* Raspberry Pi
* HDMI, USB and Wifi cable
* Mouse & Keyboard
* Screen

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## Planning

The main demand from the small companies was it to be simple to download, simple to use and financially sustainable. These were the three main points for our planning phase. Our first task was to find the easiest and simplest way to create a user-friendly graphic UI system where the client could configure the Web Kiosk settings without having any coding experience. After researching for compatible graphic…..

## Hardware

## Software

## UI code

## Web Kiosk Code

# Results

# Conclusion

# Sources

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