

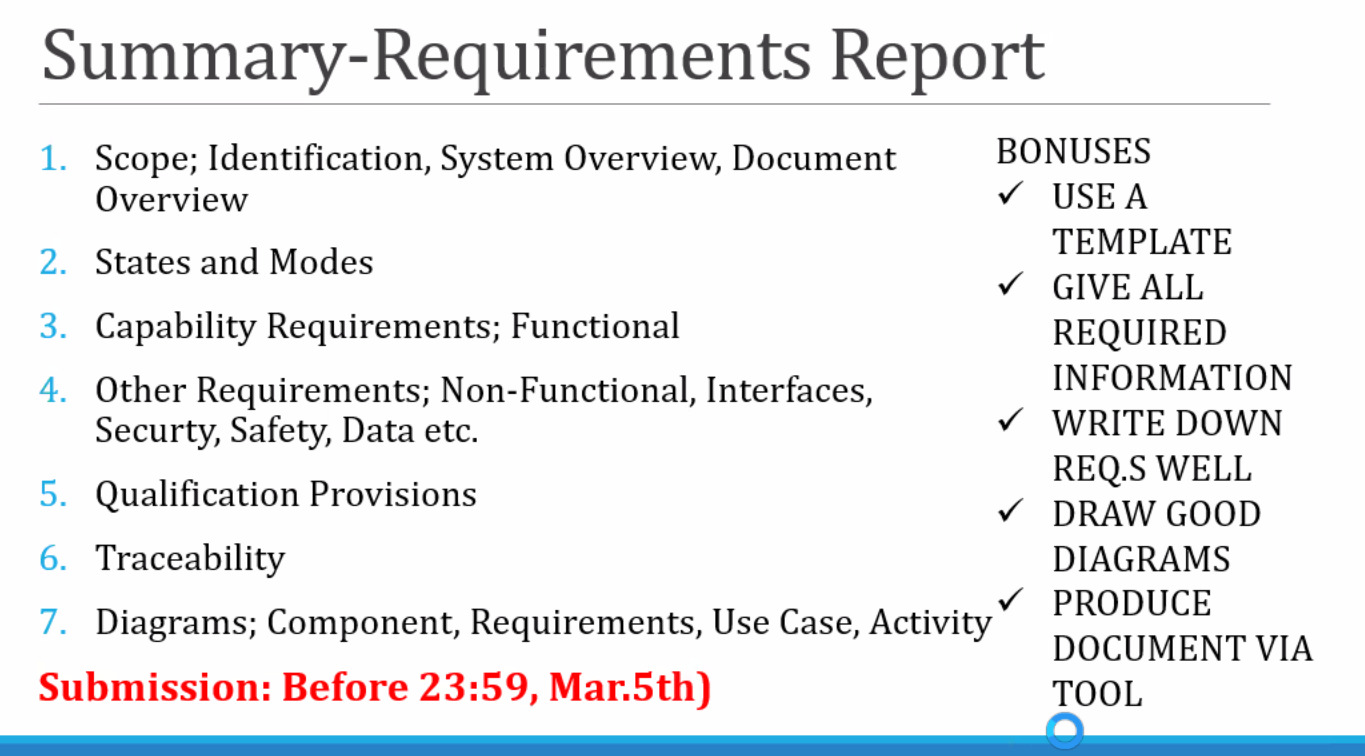
CTIS - 477 System Engineering Project

Project Requirements



**Ömer Levent Durdalı**

**21702600**



Check

<https://krazytech.com/projects/sample-software-requirements-specificationsrs-report-airline-database>

<http://web.cse.ohio-state.edu/~bair.41/616/Project/Example_Document/Req_Doc_Example.html>

<http://www.ofnisystems.com/services/validation/user-requirement-specifications/>

Edge Onetab

# Introduction

The projects name is, Smart Life and Home Security System, this document will refer to the project with following abbreviation; **SLS**.

SLS is a small Smart Home System that manages and tracks curtains, lights, temperature and

motion in a given area.

# Scope

## System Overview

SLS’s main purpose is to be a Decision support system for a home user, meaning the system can help with managing room temperature, adjust light levels and lastly helps the user to adjust the curtains in the specified room. The system will have 3 different sensors that is connected to a central hub. This hub will communicate with a personalized cloud server using the MQTT communication protocol. The end-user will be able to see the gathered data and control the light level and curtain positions from the local web dashboard panel.

## Document Overview

This document will specify, project requirements, work flow, system capabilities, system use environment, resources, and constraints of the SLS.

SLS does not collect any personal data so there are no privacy concerns regarding its use.

## Literature and Referenced Documents

There are no open-source or closed-sourced Home automation system that have the same functionally as SLS, but there are lots of different competitors in regards to its specified and different abilities some are listed below.

* **Smart Curtains:**
* Turns existing curtains to a Smart Curtain - <https://slide.store/>
* Smart Home Blinds <https://getkeego.com/>
* Spikebot Curtain Device - <https://spikebot.io/spikebot-curtain-device/>
* **Smart Home Light:** Philips Hue lights and Xiaomi Mi Smart lights.
* Smart Motion Detectors: Bosch Motion Detectors and SONOF Motion Sensors.
* **Software:** This software is used to combine different smart home automation vendors.
* OpenHAB, Open-Source Home Automating Software - <http://www.openhab.org/>
* PiDome, - <https://pidome.org/>

# Requirements

## Functional Requirements

xx

## Non-Functional Requirements

Xx

## Other Requirements

### Security and Privacy Requirements

xx

### System Environment Requirements.

xx

### System Quality Factors

Xx

### Computer resource and hardware requirements

xx

### Interfaces

Xx

## Constraints

xx

# Qualification Provision

## Demonstration

xx

## Test

xx

## Analysis

xx

## Inspection

xx

# System Models

## Component

xx

## Requirements

xx

## Use Case

xx

## Activity

xx

# Requirement Traceability

Xx

# References