Report

# Introduction

Folder Structure

├── CMakeLists.txt // The top level cmake file

├── shared // For source files that used in multiple tasks.

│   ├── common.hpp // contains shared macros and structs

│   ├── csv.cpp // contains the CSV handler class.

│   ├── csv.hpp

│   ├── parser.cpp // handles the command line parsing

│   └── parser.hpp

├── task\_1

│   ├── CMakeLists.txt

│   ├── main.cpp

│   ├── simulation.cpp // getSensorValue(), runSimulation(), getCurrentTimestamp()

│   └── simulation.hpp

├── task\_2

│   ├── CMakeLists.txt

│   ├── main.cpp

│   ├── process.cpp // parseTime(), formatTime(), processFile()

│   └── process.hpp

└── task\_3

   ├── CMakeLists.txt

   └── main.cpp

Libraries used

iostream, string, vector, fstring, algorithm, stdexcept, cstdlib, ctime, thread, iomanip, sstream, chrono, map

# Detailed design

## The “Parser” class:

* The has method : for flag arguments ( Boolean arguments )
* The get method : for arguments with value