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|  | Prepared by:   * Merna Hany * Sara Kassem * Assma Adel * Mahmoud Naguib * Mohamed Ossama   Supervised by:   * Eng. Mahmoud Abo Youssef   Version:   * Global Design Document Draft: V1.2 |

Introduction:

This document illustrates the global design of the software used to implement the project’s functionality.

Description:

There are three main layers to the software, the Micro-controller layer (MCAL), the Hardware layer (HAL) and the Application layer (App.)

The document is divided into those three section with their designated functions that will be used in writing the software for the Alarm Clock project. Each section has a description of which function will use which other function from another layer.

MCAL:

1. Clear\_bit
2. Get\_bit

HAL:

1. LCD
2. Write\_character

Calls clear and clear bit

1. Send\_command
2. Push Button
3. Is\_pressed

Calls get bit

1. Buzzer
2. Start\_Buzzer

Calls set bit

1. Stop\_Buzzer

Calls clear bit

Application:

1. Set\_alarm

Calls Is\_pressed and write\_character

1. Set\_date

Calls Is\_pressed and write\_character