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Version	**Author**	**Date**	**Change**
1.0	Alzahraa Mohamed Nada Mohamed	22/1/2020	Initial creation

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Project Description

This project is a digital calculator that takes input from user and displays the input and the result on a screen.

The hardware used in the calculator is Keypad which takes input from user, LCD to display the result, buzzer to generate tunes on each key press and micro controller that performs all operations in the system. The scenario is described in figure 1.1

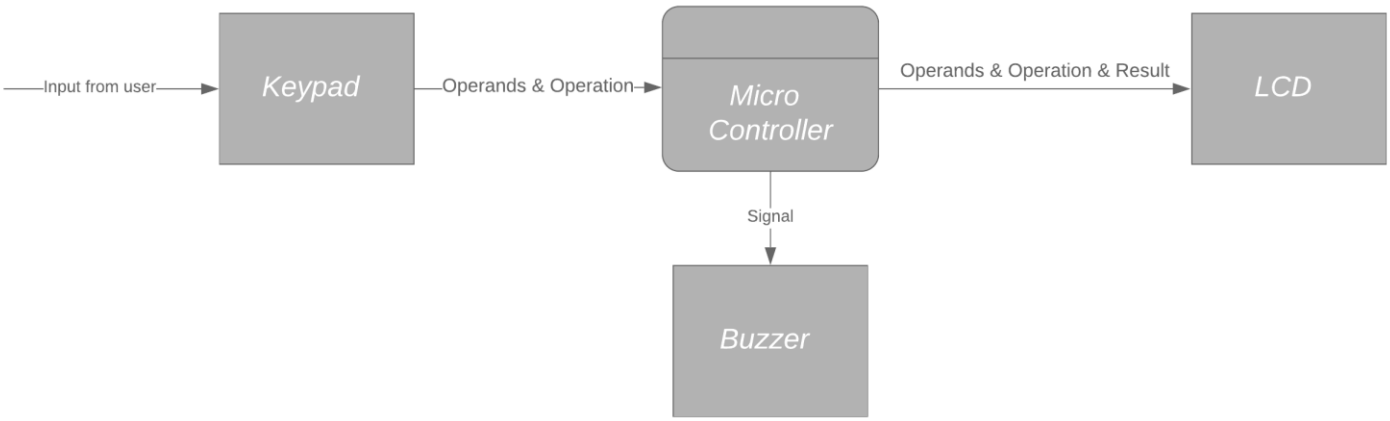

Figure 1.1 Scenario Diagram

Features:

1) Take input from user through keypad.
2) Generate a tune on each key press.
3) Perform multiple basic operations and handle corner cases.
4) Display the input and the result on LCD.
5) Switching calculator on and off.

Features description

Requirement Name	Requirement Description
Req_PO1_DGC_CYRS_001_V01	Calculator takes input from user through keypad, on each keypress number is sent to micro controller
Req_PO1_DGC_CYRS_002_V01	Micro controller sends signal to buzzer on each key press to generate tunes
Req_PO1_DGC_CYRS_003_V01	Micro controller performs basic operations which are addition, subtraction, division and multiplication on numbers token from keypad and handles exceptional cases such as division by zero and generates the accurate result or an error if it is required
Req_PO1_DGC_CYRS_004_V01	Micro controller sends input numbers, operation and generated result to be displayed on LCD
Req_PO1_DGC_CYRS_005_V01	Calculator which is switched on and off through two buttons. On state turns the LCD light on, clears the display and start a new session, while off state turns the LCD light off and terminates the session