2. Arduino Calculator using 4*4 Keyboard
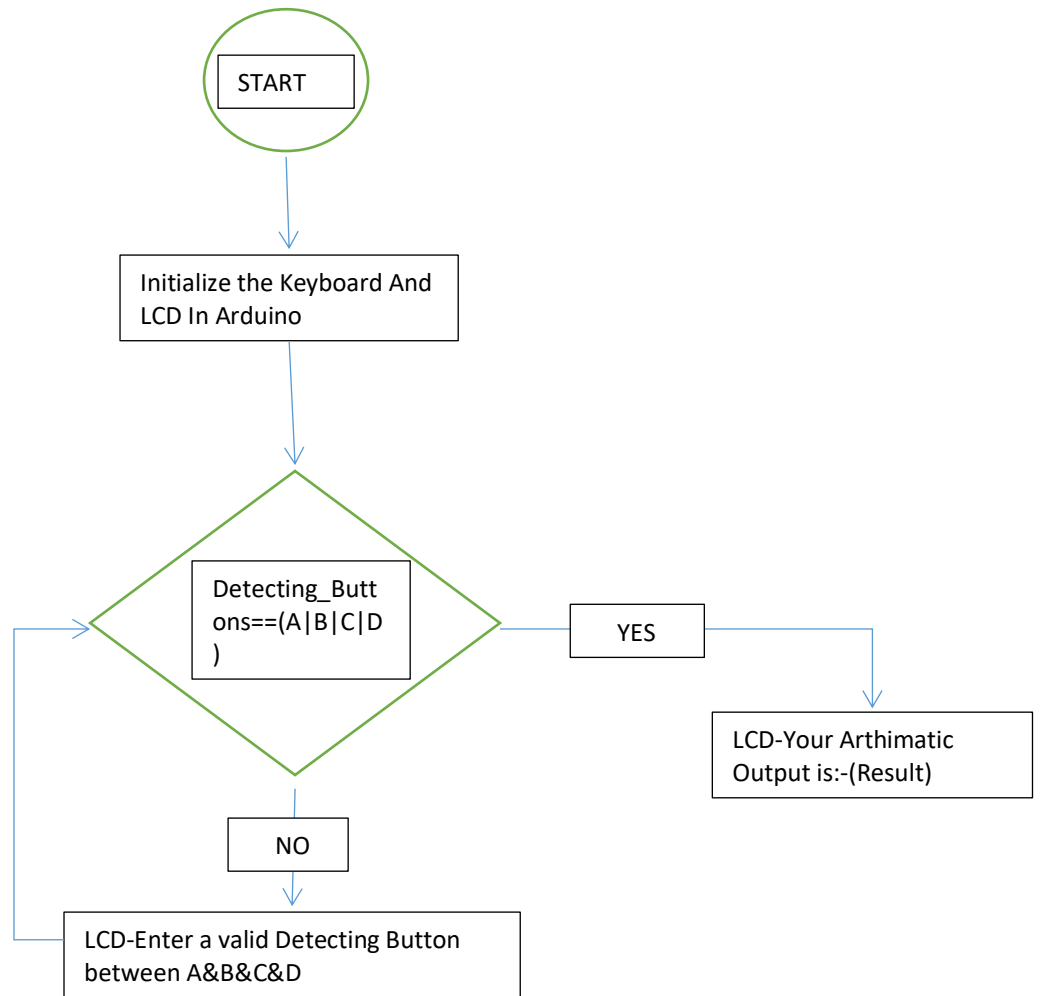
1. Block Diagram

```
                    ┌─────────────────────┐
                    │                     │
  ┌──────────────┐  │  ┌───────────────┐  │  ┌──────────────────┐
  │ 4*4 Keyboard │←─┼──│ Microcontroller│──┼─→│ 16*2 LCD Display │
  └──────────────┘  │  └───────────────┘  │  └──────────────────┘
                    │                     │
                    └─────────────────────┘
```
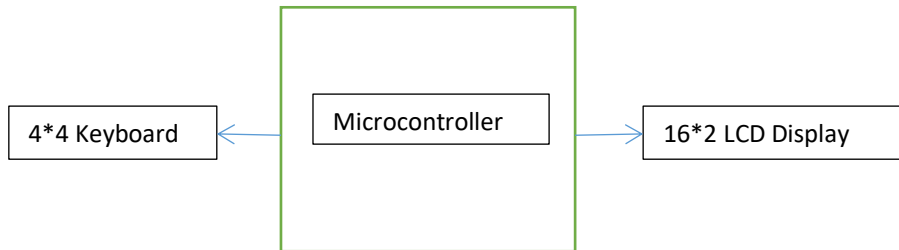
2. Table

s.no.	Discription	Name	Type	Data Direction	Specification	Remarks
1.	lcd	16*2 LCD Display	output	DO	5VDC	
2.	Keypad	4*4 Keyboard	Input	DI	NA	

3. Flow Chart

```
            ( START )
                │
                ▼
   ┌────────────────────────┐
   │ Initialize the Keyboard And │
   │ LCD In Arduino          │
   └────────────────────────┘
                │
                ▼
          ╱ Detecting_Butt ╲
         ╱  ons==(A|B|C|D   ╲ ──── YES ────┐
         ╲  )                ╱              ▼
          ╲                 ╱      ┌──────────────────┐
                │                  │ LCD-Your Arthimatic │
                NO                 │ Output is:-(Result) │
                │                  └──────────────────┘
                ▼
   ┌────────────────────────────┐
   │ LCD-Enter a valid Detecting Button │
   │ between A&B&C&D             │
   └────────────────────────────┘
```

4. C Code
5. Circuit and Simulation