FINAL CODE

```
#include <Wire.h>
#include<EEPROM.h>
#include <RTClib.h>
#include <LiquidCrystal.h>

LiquidCrystal lcd(7, 6, 5, 4, 3, 2);
RTC_DS1307 RTC;
int temp,inc,hours1,minut,add=11;
int next=10;
int INC=9;
int set_mad=8;

#define buzzer 13

int HOUR,MINUT,SECOND;

void setup()
{
 Wire.begin();
 RTC.begin();
 lcd.begin(16,2);
 pinMode(INC, INPUT);
 pinMode(next, INPUT);
 pinMode(set_mad, INPUT);
 pinMode(buzzer, OUTPUT);

  lcd.setCursor(0,0);
  lcd.print("Medicin reminder");
  lcd.setCursor(0,1);
  lcd.print(" Using Arduino  ");
```

```
   delay(2000);
   lcd.setCursor(0,0);
  lcd.print("By Saddam khan  ");
  lcd.setCursor(0,1);
  lcd.print("Engineers Garage");
   delay(2000);

 if(!RTC.isrunning())
 {
 RTC.adjust(DateTime(_DATE,TIME_));
 }
}

void loop()
{
  int temp=0,val=1,temp4;
  DateTime now = RTC.now();
  if(digitalRead(set_mad) == 0)      //set medicine time
  {
    lcd.setCursor(0,0);
  lcd.print("  Set Medicine  ");
  lcd.setCursor(0,1);
  lcd.print("  Reminder time ");
   delay(2000);
   lcd.clear();
   lcd.setCursor(0,0);
   lcd.print("Enter Time 1");
   defualt();
   time(1);
   delay(1000);
   lcd.clear();
```

```
   lcd.setCursor(0,0);
   lcd.print("Enter Time 2");
   defualt();
   delay(1000);
   time(2);
   lcd.clear();
   lcd.setCursor(0,0);
   lcd.print("Enter Time 3");
   defualt();
time(3);
    lcd.setCursor(0,0);
  lcd.print("Medicin reminder");
  lcd.setCursor(0,1);
  lcd.print("  time has set  ");
   delay(2000);
 }
 lcd.clear();
 lcd.setCursor(0,0);
 lcd.print("Time:");
 lcd.setCursor(6,0);
 lcd.print(HOUR=now.hour(),DEC);
 lcd.print(":");
 lcd.print(MINUT=now.minute(),DEC);
 lcd.print(":");
 lcd.print(SECOND=now.second(),DEC);
 lcd.setCursor(0,1);
 lcd.print("Date: ");
 lcd.print(now.day(),DEC);
 lcd.print("/");
 lcd.print(now.month(),DEC);
 lcd.print("/");
```

```
 lcd.print(now.year(),DEC);
 match();
 delay(200);
}

void defualt()
{
  lcd.setCursor(0,1);
  lcd.print(HOUR);
  lcd.print(":");
  lcd.print(MINUT);
  lcd.print(":");
  lcd.print(SECOND);
}

/Function to set alarm time and feed time into Internal eeprom/

void time(int x)
{
  int temp=1,minuts=0,hours=0,seconds=0;
    while(temp==1)
    {
     if(digitalRead(INC)==0)
     {
      HOUR++;
      if(HOUR==24)
      {
       HOUR=0;
      }
      while(digitalRead(INC)==0);
     }
```

```
lcd.clear();
     lcd.setCursor(0,0);
   lcd.print("Enter Time ");
  lcd.print(x);
   lcd.setCursor(0,1);
   lcd.print(HOUR);
   lcd.print(":");
   lcd.print(MINUT);
   lcd.print(":");
   lcd.print(SECOND);
   delay(100);
   if(digitalRead(next)==0)
   {
    hours1=HOUR;
    EEPROM.write(add++,hours1);
   temp=2;
   while(digitalRead(next)==0);
   }
   }
   while(temp==2)
   {
if(digitalRead(INC)==0)
    {
     MINUT++;
     if(MINUT==60)
     {MINUT=0;}
     while(digitalRead(INC)==0);
    }
     lcd.clear();
     lcd.setCursor(0,0);
   lcd.print("Enter Time ");
```

```
  lcd.print(x);
   lcd.setCursor(0,1);
   lcd.print(HOUR);
   lcd.print(":");
   lcd.print(MINUT);
   lcd.print(":");
   lcd.print(SECOND);
   delay(100);
    if(digitalRead(next)==0)
    {
     minut=MINUT;
     EEPROM.write(add++, minut);
     temp=0;
     while(digitalRead(next)==0);
    }
   }
   delay(1000);
}



/* Function to chack medication time */


void match()
{
 int tem[17];
 for(int i=11;i<17;i++)
 {
   tem[i]=EEPROM.read(i);
 }
 if(HOUR == tem[11] && MINUT == tem[12])
 {
```

```
 beep();
 beep();
 beep();
 beep();
 lcd.setCursor(0,0);
 lcd.print("  Take Group One  ");
 lcd.setCursor(0,1);
 lcd.print("     Medicine     ");
 beep();
 beep();
 beep();
 beep();
}

 if(HOUR == tem[13] && MINUT == tem[14])
 {
   beep();
 beep();
 beep();
 beep();
  lcd.setCursor(0,0);
 lcd.print("  Take Group Two  ");
 lcd.setCursor(0,1);
 lcd.print("     Medicine     ");
  beep();
 beep();
 beep();
 beep();
 }
```

```
  if(HOUR == tem[15] && MINUT == tem[16] )
  {
    beep();
  beep();
  beep();
  beep();
   lcd.setCursor(0,0);
  lcd.print("Take Group Three ");
  lcd.setCursor(0,1);
  lcd.print("     Medicine    ");
  beep();
  beep();
  beep();
  beep();
  }
}

/* function to buzzer indication */

void beep()
{
  digitalWrite(buzzer,HIGH);
  delay(500);
  digitalWrite(buzzer, LOW);
  delay(500);
}
```