```
#include
<Wire.h>
        #include<EEPROM.h>
        #include <RTClib.h>
        #include <LiquidCrystal.h>
        LiquidCrystal lcd(2, 3, 4, 5, 6, 7);
        RTC_DS1307 RTC;
        int tmp,Inc,hor,mIn,add=11;
        int set=8;
        int cge=9;
        int mod=10;
        int off=0;
        #define buz 11
        int Hor,Min,Sec;
        ////////////////////////////////////Function to adjust the time/////////////////////////////////
        void time()
        {
            int tmp=1,mins=0,hors=0,secs=0;
            while(tmp==1)
            {
             off=0;
             if(digitalRead(cge)==0)
             {
              Hor++;
              if(Hor==24)
              {
               Hor=0;
              }
             }
             lcd.clear();
             lcd.setCursor(0,0);
             lcd.print("Set Alarm Time ");
            lcd.setCursor(0,1);
            if(Hor<=9)
            lcd.print("0");
            lcd.print(Hor);
            lcd.print(":");
            lcd.print(Min);
            lcd.print(":");
            lcd.print(Sec);
            delay(200);
```

```
lcd.setCursor(0,1);
lcd.print("  ");
lcd.print(":");
lcd.print(Min);
lcd.print(":");
lcd.print(Sec);
delay(200);
if(digitalRead(set)==0)
{
  hor=Hor;
  EEPROM.write(add++,hor);
 tmp=2;
 while(digitalRead(set)==0);
}
}

while(tmp==2)
{
 if(digitalRead(cge)==0)
 {
  Min++;
  if(Min==60)
  {Min=0;}
 }
lcd.setCursor(0,1);
lcd.print(Hor);
lcd.print(":");
 if(Min<=9)
lcd.print("0");
lcd.print(Min);
lcd.print(":");
lcd.print(Sec);
lcd.print("  ");
delay(200);
 lcd.setCursor(0,1);
lcd.print(Hor);
lcd.print(":");
lcd.print("  ");
lcd.print(":");
lcd.print(Sec);
lcd.print("  ");
```

```
    delay(200);
      if(digitalRead(set)==0)
      {
       mIn=Min;
       EEPROM.write(add++, mIn);
       tmp=0;
       while(digitalRead(set)==0);
      }
    }
    off=1;
    delay(10);
}
//////////////////////////////////////////function to sound the buzzer//////////////////////////////
void Buz()
{
  if(digitalRead(set)==0)
  off=0;
  if(off==1)
  {
   digitalWrite(buz,HIGH);
   delay(500);

   digitalWrite(buz, LOW);
   delay(500);
  }
}
//////////////////////////////////////////function to compare the alarm time with current RTC time///
void TimeCheck()
{
  int tem[17];
  for(int i=11;i<17;i++)
  {
    tem[i]=EEPROM.read(i);
  }
  if(Hor == tem[11] && Min == tem[12] && off==1)
  {
   add=11;
   Buz();
   Buz();
   lcd.clear();
   lcd.print("alarm..........");
```

```
   lcd.setCursor(0,1);
   lcd.print("..........alarm");
   Buz();
   Buz();
    }
}
////////////////////////////////////////////////////////setup/////////////////////////
void setup()
{
 Wire.begin();
 RTC.begin();
 lcd.begin(16,2);
 pinMode(cge, INPUT);
 pinMode(set, INPUT);
 pinMode(mod, INPUT);
 pinMode(buz, OUTPUT);
 digitalWrite(set, HIGH);
 digitalWrite(mod, HIGH);
 digitalWrite(cge, HIGH);

   lcd.setCursor(0,0);
   lcd.print("ELECTRONICS HUB");
   lcd.setCursor(0,1);
   lcd.print("  Alarm Clock  ");
   delay(2000);

 if(!RTC.isrunning())
 {
 RTC.adjust(DateTime(__DATE__,__TIME__));
 }
}
////////////////////////////////////////////////////////loop//////////////////////////////////////
void loop()
{
   DateTime now = RTC.now();
   if(digitalRead(mod) == 0)
   {
    current();
    time();
    delay(1000);
    lcd.clear();
```

```
    lcd.setCursor(0,0);
    lcd.print("  Alarm On");
    delay(2000);
   }
lcd.clear();
lcd.setCursor(0,0);
lcd.print("Time:");
lcd.setCursor(6,0);
Hor=now.hour(),DEC;
if(Hor<=9)
{
 lcd.print("0");
 lcd.print(Hor=now.hour(),DEC);
}
else
lcd.print(Hor=now.hour(),DEC);
lcd.print(":");
Min=now.minute(),DEC;
if(Min<=9)
{
lcd.print("0");
lcd.print(Min=now.minute(),DEC);
}
else
lcd.print(Min=now.minute(),DEC);

lcd.print(":");
Sec=now.second(),DEC;
if(Sec<=9)
{
 lcd.print("0");
 lcd.print(Sec=now.second(),DEC);
}
else
lcd.print(Sec=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);
 TimeCheck();
 delay(200);
}
////////////////////////////////////////////////////function to get current RTC time//////////////
void current()
{
  lcd.setCursor(0,1);
  lcd.print(Hor);
  lcd.print(":");
  lcd.print(Min);
  lcd.print(":");
  lcd.print(Sec);
}
```