#include <LiquidCrystal.h>

#include <EEPROM.h>

#include "Wire.h"

#define I2C\_ADDRESS 0x68

LiquidCrystal lcd(13,12,11,10,9,8);

#define SW1 A0

#define SW2 A1

#define SW3 A2

#define SW4 A3

int buzzer=6,red\_led=5,green\_led=4;

char\* rfid\_id[]={"1900E54250EE","1900E561BC21","18003D312034","14000AD871B7","000003D4EE39","02001047EABF","0200108156C5","0200108040D2","18003D858929","020010811182"};

char\* names[]={"LOKESH","NANCY","ALEX","KEVIN","JOJO","PRINCE","TRACY","JIMMY","DANIEL","LAURA"};

int presence[10];

long pm=0;

int i=0,j=0, presentNum=0;

int decToBcd(int val){

return( (val/10\*16) + (val%10) );

}

int bcdToDec(int val){

return( (val/16\*10) + (val%16) );

}

int second, minute, hour, dayOfWeek, dayOfMonth, month, year;

int S=0, M=0, H=0,DOW=0, DOM=0, MONTH=0, YEAR=0;

int Min=0, Hour=0, totMin=0,totHour=0;

void setup() {

Wire.begin();

Serial.begin(9600);

lcd.begin(20,4);

lcd.clear();

setTime(00,27,15,03,22,05,18);

pinMode(buzzer,OUTPUT);

pinMode(red\_led,OUTPUT);

pinMode(green\_led,OUTPUT);

pinMode(SW1,INPUT\_PULLUP);

pinMode(SW2,INPUT\_PULLUP);

pinMode(SW3,INPUT\_PULLUP);

pinMode(SW4,INPUT\_PULLUP);

presentNum=EEPROM.read(1000);

for(i=0;i<10;i++)

presence[i]=EEPROM.read(i);

}

void setTime(int second, int minute, int hour, int dayOfWeek, int dayOfMonth, int month, int year){

Wire.beginTransmission(I2C\_ADDRESS);

Wire.write(0);

Wire.write(decToBcd(second));

Wire.write(decToBcd(minute));

Wire.write(decToBcd(hour));

Wire.write(decToBcd(dayOfWeek));

Wire.write(decToBcd(dayOfMonth));

Wire.write(decToBcd(month));

Wire.write(decToBcd(year));

Wire.endTransmission();

}

void readTime(int \*second,int \*minute,int \*hour,int \*dayOfWeek,int \*dayOfMonth,int \*month,int \*year){

Wire.beginTransmission(I2C\_ADDRESS);Wire.write(0);

Wire.endTransmission();Wire.requestFrom(I2C\_ADDRESS, 7);

\*second = bcdToDec(Wire.read() & 0x7f);

\*minute = bcdToDec(Wire.read());

\*hour = bcdToDec(Wire.read() & 0x3f);

\*dayOfWeek = bcdToDec(Wire.read());

\*dayOfMonth = bcdToDec(Wire.read());

\*month = bcdToDec(Wire.read());

\*year = bcdToDec(Wire.read());

}

void displayTime(){

HOUR int;

readTime(&second, &minute, &hour, &dayOfWeek, &dayOfMonth, &month,&year);

if(hour>12)

HOUR=hour-12;

else

HOUR=hour;

if(j<2){lcd.clear();j++;}

lcd.setCursor(1,0);

if (HOUR<10)

lcd.print("0");

lcd.print(HOUR);lcd.print(":");

if (minute<10)

lcd.print("0");

lcd.print(minute);

lcd.print(":");

if (second<10)

lcd.print("0");

lcd.print(second);

lcd.setCursor(4,1);

if(hour>12)

lcd.print("PM");

else

lcd.print("AM");

lcd.setCursor(12,0);

if (dayOfMonth<10)

lcd.print("0");

lcd.print(dayOfMonth);

lcd.print("/");

if (month<10)

lcd.print("0");

lcd.print(month);

lcd.print("/");

lcd.print(year);

lcd.print(" ");

lcd.setCursor(11,1);

switch(dayOfWeek){

case 1: lcd.print(" Sunday ");break;

case 2: lcd.print(" Monday ");break;

case 3: lcd.print(" Tuesday ");break;

case 4: lcd.print("Wednesday ");break;

case 5: lcd.print(" Thursday ");break;

case 6: lcd.print(" Friday ");break;

case 7: lcd.print(" Saturday ");break;}

}

void conTime(int a, int b, int c )

{

int Hr;

int h, m, s;

h=EEPROM.read(a);

m=EEPROM.read(b);

s=EEPROM.read(c);

if(h>12)

Hr=h-12;

else

Hr=h;

lcd.print(" ");

if (Hr<10)

lcd.print("0");

lcd.print(Hr);lcd.print(":");

if (m<10)

lcd.print("0");

lcd.print(m);

lcd.print(":");

if (s<10)

lcd.print("0");

lcd.print(s);

if(h>12)

lcd.print(" PM");

else

lcd.print(" AM");

}

void loop()

{

int i;

char response[12];

int ch;

top:

if(hour==8 && minute==30 && second==0){

lcd.clear();

lcd.setCursor(2,0);

lcd.print(" Clearing");

lcd.setCursor(2,1);

lcd.print("Yesterday's data");

for(i=0;i<10;i++){

lcd.setCursor(4,3);

lcd.print(" ");

delay(1000);

lcd.setCursor(4,3);

lcd.print("Please Wait");

delay(1000);}

lcd.clear();

lcd.setCursor(7,1);

lcd.print("CLEARED");

delay(1000);

EEPROM.write(1000,0);

for(i=0;i<500;i++)

EEPROM.write(i,0);

presentNum=EEPROM.read(1000);

for(i=0;i<10;i++)

presence[i]=EEPROM.read(i);

j=0;

}

displayTime();

lcd.setCursor(0,3);

lcd.print(" Press 1 for menu ");

if(digitalRead(SW1)==0)

{

lcd.clear();lcd.setCursor(0,0);lcd.print(" 1. View attendance ");

lcd.setCursor(0, 1); lcd.print(" 2. View all");

lcd.setCursor(0, 2); lcd.print(" 3. Clear all");

lcd.setCursor(0, 3); lcd.print(" 4. Go Back");

delay(500);

while(digitalRead(SW1)==HIGH && digitalRead(SW2)==HIGH && digitalRead(SW3)==HIGH && digitalRead(SW4)==HIGH);

if(digitalRead(SW1)== LOW)//View attendance

{

top1:lcd.clear(); lcd.setCursor(0,0); lcd.print("Total staffs - "); lcd.print(10);

presentNum=EEPROM.read(1000);

lcd.setCursor(0,1); lcd.print("Staffs present - "); lcd.print(presentNum);

lcd.setCursor(0,3); lcd.print("1.Detials");

lcd.setCursor(11,3); lcd.print("4.Go Back");

delay(500);

while(digitalRead(SW1)==HIGH && digitalRead(SW4)==HIGH);

if(digitalRead(SW4)==LOW){

lcd.clear(); goto top;}

if(digitalRead(SW1)==LOW){

delay(500);

for(i=0;i<10;i++)

presence[i]=EEPROM.read(i);

if(presentNum==0){

lcd.clear();

lcd.setCursor(2,1);

lcd.print("No One Is Present");

delay(2000);

}

lcd.clear();

if(presence[0]==1 || presence[0]==2)

{

lcd.clear();

lcd.setCursor(7,0);

lcd.print(names[0]);

lcd.setCursor(0,1);

lcd.print("Arrive -");

conTime(300,301,302);

lcd.setCursor(0,2);

lcd.print("Depart -");

if(presence[0]==2)

conTime(303,304,305);

lcd.setCursor(0,3);

lcd.print("1.Next");

lcd.setCursor(11,3);

lcd.print("4.Go Back");

delay(500);

while(digitalRead(SW1)==HIGH && digitalRead(SW4)==HIGH);

if(digitalRead(SW4)==LOW){

lcd.clear();

goto top;}

}

if(presence[1]==1 || presence[1]==2)

{

lcd.clear();

lcd.setCursor(7,0);

lcd.print(names[1]);

lcd.setCursor(0,1);

lcd.print("Arrive -");

conTime(310,311,312);

lcd.setCursor(0,2);

lcd.print("Depart -");

if(presence[1]==2)

conTime(313,314,315);

lcd.setCursor(0,3);

lcd.print("1.Next");

lcd.setCursor(11,3);

lcd.print("4.Go Back");

delay(500);

while(digitalRead(SW1)==HIGH && digitalRead(SW4)==HIGH);

if(digitalRead(SW4)==LOW){

lcd.clear();

goto top;}

}

if(presence[2]==1 || presence[2]==2)

{

lcd.clear();

lcd.setCursor(7,0);

lcd.print(names[2]);

lcd.setCursor(0,1);

lcd.print("Arrive -");

conTime(320,321,322);

lcd.setCursor(0,2);

lcd.print("Depart -");

if(presence[2]==2)

conTime(323,324,325);

lcd.setCursor(0,3);

lcd.print("1.Next");

lcd.setCursor(11,3);

lcd.print("4.Go Back");

delay(500);

while(digitalRead(SW1)==HIGH && digitalRead(SW4)==HIGH);

if(digitalRead(SW4)==LOW){

lcd.clear();

goto top;}

}

if(presence[3]==1 || presence[3]==2)

{

lcd.clear();

lcd.setCursor(7,0);

lcd.print(names[3]);

lcd.setCursor(0,1);

lcd.print("Arrive -");

conTime(330,331,332);

lcd.setCursor(0,2);

lcd.print("Depart -");

if(presence[3]==2)

conTime(333,334,335);

lcd.setCursor(0,3);

lcd.print("1.Next");

lcd.setCursor(11,3);

lcd.print("4.Go Back");

delay(500);

while(digitalRead(SW1)==HIGH && digitalRead(SW4)==HIGH);

if(digitalRead(SW4)==LOW){

lcd.clear();

goto top;}

}

if(presence[4]==1 || presence[4]==2)

{

lcd.clear();

lcd.setCursor(7,0);

lcd.print(names[4]);

lcd.setCursor(0,1);

lcd.print("Arrive -");

conTime(340,341,342);

lcd.setCursor(0,2);

lcd.print("Depart -");

if(presence[4]==2)

conTime(343,344,345);

lcd.setCursor(0,3);

lcd.print("1.Next");

lcd.setCursor(11,3);

lcd.print("4.Go Back");

delay(500);

while(digitalRead(SW1)==HIGH && digitalRead(SW4)==HIGH);

if(digitalRead(SW4)==LOW){

lcd.clear();

goto top;}

}

if(presence[5]==1 || presence[5]==2)

{

lcd.clear();

lcd.setCursor(7,0);

lcd.print(names[5]);

lcd.setCursor(0,1);

lcd.print("Arrive -");

conTime(350,351,352);

lcd.setCursor(0,2);

lcd.print("Depart -");

if(presence[5]==2)

conTime(353,354,355);

lcd.setCursor(0,3);

lcd.print("1.Next");

lcd.setCursor(11,3);

lcd.print("4.Go Back");

delay(500);

while(digitalRead(SW1)==HIGH && digitalRead(SW4)==HIGH);

if(digitalRead(SW4)==LOW){

lcd.clear();

goto top;}

}

if(presence[6]==1 || presence[6]==2)

{

lcd.clear();

lcd.setCursor(5,0);

lcd.print(names[6]);

lcd.setCursor(0,1);

lcd.print("Arrive -");

conTime(360,361,362);

lcd.setCursor(0,2);

lcd.print("Depart -");

if(presence[6]==2)

conTime(363,364,365);

lcd.setCursor(0,3);

lcd.print("1.Next");

lcd.setCursor(11,3);

lcd.print("4.Go Back");

delay(500);

while(digitalRead(SW1)==HIGH && digitalRead(SW4)==HIGH);

if(digitalRead(SW4)==LOW){

lcd.clear();

goto top;}

}

if(presence[7]==1 || presence[7]==2)

{

lcd.clear();

lcd.setCursor(7,0);

lcd.print(names[7]);

lcd.setCursor(0,1);

lcd.print("Arrive -");

conTime(370,371,372);

lcd.setCursor(0,2);

lcd.print("Depart -");

if(presence[7]==2)

conTime(373,374,375);

lcd.setCursor(0,3);

lcd.print("1.Next");

lcd.setCursor(11,3);

lcd.print("4.Go Back");

delay(500);

while(digitalRead(SW1)==HIGH && digitalRead(SW4)==HIGH);

if(digitalRead(SW4)==LOW){

lcd.clear();

goto top;}

}

if(presence[8]==1 || presence[8]==2)

{

lcd.clear();

lcd.setCursor(7,0);

lcd.print(names[8]);

lcd.setCursor(0,1);

lcd.print("Arrive -");

conTime(380,381,382);

lcd.setCursor(0,2);

lcd.print("Depart -");

if(presence[8]==2)

conTime(383,384,385);

lcd.setCursor(0,3);

lcd.print("1.Next");

lcd.setCursor(11,3);

lcd.print("4.Go Back");

delay(500);

while(digitalRead(SW1)==HIGH && digitalRead(SW4)==HIGH);

if(digitalRead(SW4)==LOW){

lcd.clear();

goto top;}

}

if(presence[9]==1 || presence[9]==2)

{

lcd.clear();

lcd.setCursor(7,0);

lcd.print(names[9]);

lcd.setCursor(0,1);

lcd.print("Arrive -");

conTime(390,391,392);

lcd.setCursor(0,2);

lcd.print("Depart -");

if(presence[9]==2)

conTime(393,394,395);

lcd.setCursor(0,3);

lcd.print("1.Next");

lcd.setCursor(11,3);

lcd.print("4.Go Back");

delay(500);

while(digitalRead(SW1)==HIGH && digitalRead(SW4)==HIGH);

if(digitalRead(SW4)==LOW){

lcd.clear();

goto top;}

}

delay(500);

lcd.clear();

goto top1;

}

}

if(digitalRead(SW4)==LOW){

lcd.clear();

goto top;}

if(digitalRead(SW2)==LOW){

lcd.clear();

lcd.setCursor(3,1);

lcd.print(" Details From");

lcd.setCursor(5,2);

DOM=EEPROM.read(1010);

if (DOM<10)

lcd.print("0");

lcd.print(DOM);

lcd.print("/");

MONTH=EEPROM.read(1011);

if (MONTH<10)

lcd.print("0");

lcd.print(MONTH);

lcd.print("/");

YEAR=EEPROM.read(1012);

lcd.print(YEAR);

delay(3000);

lcd.clear();lcd.setCursor(7,0); lcd.print(names[0]);

lcd.setCursor(0,1); lcd.print("Status- ");

if(presence[0]==0) lcd.print("Absent");

if(presence[0]==1) lcd.print("Present");

if(presence[0]==2) lcd.print("Left");

lcd.setCursor(0,2);lcd.print("Total Hours- ");lcd.print(EEPROM.read(900));lcd.print(":");lcd.print(EEPROM.read(901));

lcd.setCursor(0,3);

lcd.print("1.Next");

lcd.setCursor(11,3);

lcd.print("4.Go Back");

delay(500);

while(digitalRead(SW1)==HIGH && digitalRead(SW4)==HIGH);

if(digitalRead(SW4)==LOW){

lcd.clear();

goto top;}

lcd.clear();lcd.setCursor(7,0); lcd.print(names[1]);

lcd.setCursor(0,1); lcd.print("Status- ");

if(presence[1]==0) lcd.print("Absent");

if(presence[1]==1) lcd.print("Present");

if(presence[1]==2) lcd.print("Left");

lcd.setCursor(0,2);lcd.print("Total Hours- ");lcd.print(EEPROM.read(910));lcd.print(":");lcd.print(EEPROM.read(911));

lcd.setCursor(0,3);

lcd.print("1.Next");

lcd.setCursor(11,3);

lcd.print("4.Go Back");

delay(500);

while(digitalRead(SW1)==HIGH && digitalRead(SW4)==HIGH);

if(digitalRead(SW4)==LOW){

lcd.clear();

goto top;}

lcd.clear();lcd.setCursor(7,0); lcd.print(names[2]);

lcd.setCursor(0,1); lcd.print("Status- ");

if(presence[2]==0) lcd.print("Absent");

if(presence[2]==1) lcd.print("Present");

if(presence[2]==2) lcd.print("Left");

lcd.setCursor(0,2);lcd.print("Total Hours- ");lcd.print(EEPROM.read(920));lcd.print(":");lcd.print(EEPROM.read(921));

lcd.setCursor(0,3);

lcd.print("1.Next");

lcd.setCursor(11,3);

lcd.print("4.Go Back");

delay(500);

while(digitalRead(SW1)==HIGH && digitalRead(SW4)==HIGH);

if(digitalRead(SW4)==LOW){

lcd.clear();

goto top;}

lcd.clear();lcd.setCursor(7,0); lcd.print(names[3]);

lcd.setCursor(0,1); lcd.print("Status- ");

if(presence[3]==0) lcd.print("Absent");

if(presence[3]==1) lcd.print("Present");

if(presence[3]==2) lcd.print("Left");

lcd.setCursor(0,2);lcd.print("Total Hours- ");lcd.print(EEPROM.read(930));lcd.print(":");lcd.print(EEPROM.read(931));

lcd.setCursor(0,3);

lcd.print("1.Next");

lcd.setCursor(11,3);

lcd.print("4.Go Back");

delay(500);

while(digitalRead(SW1)==HIGH && digitalRead(SW4)==HIGH);

if(digitalRead(SW4)==LOW){

lcd.clear();

goto top;}

lcd.clear();lcd.setCursor(7,0); lcd.print(names[4]);

lcd.setCursor(0,1); lcd.print("Status- ");

if(presence[4]==0) lcd.print("Absent");

if(presence[4]==1) lcd.print("Present");

if(presence[4]==2) lcd.print("Left");

lcd.setCursor(0,2);lcd.print("Total Hours- ");lcd.print(EEPROM.read(940));lcd.print(":");lcd.print(EEPROM.read(941));

lcd.setCursor(0,3);

lcd.print("1.Next");

lcd.setCursor(11,3);

lcd.print("4.Go Back");

delay(500);

while(digitalRead(SW1)==HIGH && digitalRead(SW4)==HIGH);

if(digitalRead(SW4)==LOW){

lcd.clear();

goto top;}

lcd.clear();lcd.setCursor(7,0); lcd.print(names[5]);

lcd.setCursor(0,1); lcd.print("Status- ");

if(presence[5]==0) lcd.print("Absent");

if(presence[5]==1) lcd.print("Present");

if(presence[5]==2) lcd.print("Left");

lcd.setCursor(0,2);lcd.print("Total Hours- ");lcd.print(EEPROM.read(950));lcd.print(":");lcd.print(EEPROM.read(951));

lcd.setCursor(0,3);

lcd.print("1.Next");

lcd.setCursor(11,3);

lcd.print("4.Go Back");

delay(500);

while(digitalRead(SW1)==HIGH && digitalRead(SW4)==HIGH);

if(digitalRead(SW4)==LOW){

lcd.clear();

goto top;}

lcd.clear();lcd.setCursor(5,0); lcd.print(names[6]);

lcd.setCursor(0,1); lcd.print("Status- ");

if(presence[6]==0) lcd.print("Absent");

if(presence[6]==1) lcd.print("Present");

if(presence[6]==2) lcd.print("Left");

lcd.setCursor(0,2);lcd.print("Total Hours- ");lcd.print(EEPROM.read(960));lcd.print(":");lcd.print(EEPROM.read(961));

lcd.setCursor(0,3);

lcd.print("1.Next");

lcd.setCursor(11,3);

lcd.print("4.Go Back");

delay(500);

while(digitalRead(SW1)==HIGH && digitalRead(SW4)==HIGH);

if(digitalRead(SW4)==LOW){

lcd.clear();

goto top;}

lcd.clear();lcd.setCursor(7,0); lcd.print(names[7]);

lcd.setCursor(0,1); lcd.print("Status- ");

if(presence[7]==0) lcd.print("Absent");

if(presence[7]==1) lcd.print("Present");

if(presence[7]==2) lcd.print("Left");

lcd.setCursor(0,2);lcd.print("Total Hours- ");lcd.print(EEPROM.read(970));lcd.print(":");lcd.print(EEPROM.read(971));

lcd.setCursor(0,3);

lcd.print("1.Next");

lcd.setCursor(11,3);

lcd.print("4.Go Back");

delay(500);

while(digitalRead(SW1)==HIGH && digitalRead(SW4)==HIGH);

if(digitalRead(SW4)==LOW){

lcd.clear();

goto top;}

lcd.clear();lcd.setCursor(7,0); lcd.print(names[8]);

lcd.setCursor(0,1); lcd.print("Status- ");

if(presence[8]==0) lcd.print("Absent");

if(presence[8]==1) lcd.print("Present");

if(presence[8]==2) lcd.print("Left");

lcd.setCursor(0,2);lcd.print("Total Hours- ");lcd.print(EEPROM.read(980));lcd.print(":");lcd.print(EEPROM.read(981));

lcd.setCursor(0,3);

lcd.print("1.Next");

lcd.setCursor(11,3);

lcd.print("4.Go Back");

delay(500);

while(digitalRead(SW1)==HIGH && digitalRead(SW4)==HIGH);

if(digitalRead(SW4)==LOW){

lcd.clear();

goto top;}

lcd.clear();lcd.setCursor(7,0); lcd.print(names[9]);

lcd.setCursor(0,1); lcd.print("Status- ");

if(presence[9]==0) lcd.print("Absent");

if(presence[9]==1) lcd.print("Present");

if(presence[9]==2) lcd.print("Left");

lcd.setCursor(0,2);lcd.print("Total Hours- ");lcd.print(EEPROM.read(990));lcd.print(":");lcd.print(EEPROM.read(991));

lcd.setCursor(0,3);

lcd.print("1.Next");

lcd.setCursor(11,3);

lcd.print("4.Go Back");

delay(500);

while(digitalRead(SW1)==HIGH && digitalRead(SW4)==HIGH);

delay(500);

lcd.clear();

goto top;

}

if(digitalRead(SW3)== LOW)

{

lcd.clear();

lcd.setCursor(5,1);

lcd.print("SHOW ADMIN ID");

lcd.setCursor(11,3);

lcd.print("4.Go Back");

while(!Serial.available()){

if(digitalRead(SW4)==LOW){

lcd.clear();

goto top;}

}

if(Serial.available()>0)

{

i=0;

do

{

while(Serial.available()<=0);

response[i]=Serial.read();

Serial.print(response[i]);

i++;

}while(i<12);

response[i]='\0';

if(strcmp(response,rfid\_id[4])==0)//User1 rfid received

{

lcd.clear();

lcd.setCursor(0, 0);

lcd.print(" ACCESS GRANTED ");

lcd.setCursor(0,1);

lcd.print(" ADMIN - JOJO JOSON");

analogWrite(buzzer,50); digitalWrite(green\_led,HIGH); delay(1000);

digitalWrite(buzzer,LOW); digitalWrite(green\_led,LOW);delay(3000);

lcd.setCursor(0,3);

lcd.print("1.Clear");

lcd.setCursor(11,3);

lcd.print("4.Go Back");

delay(500);

while(digitalRead(SW1)==HIGH && digitalRead(SW4)==HIGH);

if(digitalRead(SW4)==LOW){

delay(500);

lcd.clear();

goto top;}

if(digitalRead(SW1)==LOW){

lcd.clear();

lcd.setCursor(0,0);

lcd.print(" ALL CLEARED! ");

analogWrite(buzzer,50);

delay(1500);

digitalWrite(buzzer,LOW);

delay(1500);

//Clear attendance

lcd.setCursor(0,1);

lcd.print("New Date - ");

lcd.setCursor(12,1);

if (dayOfMonth<10)

lcd.print("0");

lcd.print(dayOfMonth);

lcd.print("/");

if (month<10)

lcd.print("0");

lcd.print(month);

lcd.print("/");

lcd.print(year);

lcd.print(" ");

for(i=0;i<1023;i++)

EEPROM.write(i,0);

EEPROM.write(1010,dayOfMonth);

EEPROM.write(1011,month);

EEPROM.write(1012,year);

for(i=0;i<10;i++)

presence[i]=EEPROM.read(i);

presentNum=EEPROM.read(1000);

lcd.setCursor(0,3);

lcd.setCursor(11,3);

lcd.print("4.Go Back");

delay(500);

while( digitalRead(SW4)==HIGH);

if(digitalRead(SW4)==LOW){

lcd.clear();

goto top;}

}}

else

{

lcd.clear();

lcd.setCursor(0,1);

lcd.print(" ACCESS DENIED ");

lcd.setCursor(0, 2);

lcd.print(" INVALID ID ");

analogWrite(buzzer,50);

digitalWrite(red\_led,HIGH);

delay(1000);

digitalWrite(buzzer,LOW);

digitalWrite(red\_led,LOW);

lcd.setCursor(0,3);

lcd.setCursor(11,3);

lcd.print("4.Go Back");

delay(500);

while( digitalRead(SW4)==HIGH);

if(digitalRead(SW4)==LOW){

lcd.clear();

goto top;}

}

}

}

}

if(Serial.available()>0)

{

i=0;

do

{

while(Serial.available()<=0);

response[i]=Serial.read();

Serial.print(response[i]);

i++;

}while(i<12);

response[i]='\0';

if(strcmp(response,rfid\_id[0])==0)//User1 rfid received

{

if(presence[0]==0 || presence[0]==2){

presence[0]=1;

lcd.clear(); lcd.setCursor(7,0); lcd.print("WELCOME");

lcd.setCursor(7, 2); lcd.print(names[0]); lcd.print(" !");

analogWrite(buzzer,50); digitalWrite(green\_led,HIGH); delay(1000);

digitalWrite(buzzer,LOW); digitalWrite(green\_led,LOW);delay(3000);

EEPROM.write(300,hour); EEPROM.write(301,minute); EEPROM.write(302,second);

presentNum++; EEPROM.write(1000,presentNum);lcd.clear();}

else{

presence[0]=2;

lcd.clear(); lcd.setCursor(7,0); lcd.print("SEE YOU");

lcd.setCursor(7, 2); lcd.print(names[0]); lcd.print(" !");

analogWrite(buzzer,50); digitalWrite(green\_led,HIGH); delay(1000);

digitalWrite(buzzer,LOW); digitalWrite(green\_led,LOW);delay(3000);

EEPROM.write(303,hour); EEPROM.write(304,minute); EEPROM.write(305,second);

presentNum--; EEPROM.write(1000,presentNum);

H=EEPROM.read(300);

M=EEPROM.read(301);

Hour=hour-H;

if(minute<M){ Hour--;

Min=(60-(M-minute)); }

if(minute>=M){ Min=minute-M; }

totHour=EEPROM.read(900); totMin=EEPROM.read(901);totMin=totMin+Min;

if(totMin>=60){Hour++;totMin=totMin-60;}

totHour=totHour+Hour;

EEPROM.write(900,totHour);

EEPROM.write(901,totMin);lcd.clear();}

}

else if(strcmp(response,rfid\_id[1])==0)//User1 rfid received

{

if(presence[1]==0|| presence[1]==2){

presence[1]=1;

lcd.clear(); lcd.setCursor(7,0); lcd.print("WELCOME");

lcd.setCursor(7, 2); lcd.print(names[1]); lcd.print(" !");

analogWrite(buzzer,50); digitalWrite(green\_led,HIGH); delay(1000);

digitalWrite(buzzer,LOW); digitalWrite(green\_led,LOW);delay(3000);

EEPROM.write(310,hour); EEPROM.write(311,minute); EEPROM.write(312,second);

presentNum++; EEPROM.write(1000,presentNum);lcd.clear();}

else{

presence[1]=2;

lcd.clear(); lcd.setCursor(7,0); lcd.print("SEE YOU");

lcd.setCursor(7, 2); lcd.print(names[1]); lcd.print(" !");

analogWrite(buzzer,50); digitalWrite(green\_led,HIGH); delay(1000);

digitalWrite(buzzer,LOW); digitalWrite(green\_led,LOW);delay(3000);

EEPROM.write(313,hour); EEPROM.write(314,minute); EEPROM.write(315,second);

presentNum--; EEPROM.write(1000,presentNum);lcd.clear();

H=EEPROM.read(310);

M=EEPROM.read(311);

Hour=hour-H;

if(minute<M){ Hour--;

Min=(60-(M-minute)); }

if(minute>=M){ Min=minute-M; }

totHour=EEPROM.read(910); totMin=EEPROM.read(911);totMin=totMin+Min;

if(totMin>=60){Hour++;totMin=totMin-60;}

totHour=totHour+Hour;

EEPROM.write(910,totHour);

EEPROM.write(911,totMin);lcd.clear();}

}

else if(strcmp(response,rfid\_id[2])==0)//User1 rfid received

{

if(presence[2]==0 || presence[2]==2){

presence[2]=1;

lcd.clear(); lcd.setCursor(7,0); lcd.print("WELCOME");

lcd.setCursor(7, 2); lcd.print(names[2]); lcd.print(" !");

analogWrite(buzzer,50); digitalWrite(green\_led,HIGH); delay(1000);

digitalWrite(buzzer,LOW); digitalWrite(green\_led,LOW);delay(3000);

EEPROM.write(320,hour); EEPROM.write(321,minute); EEPROM.write(322,second);

presentNum++; EEPROM.write(1000,presentNum);lcd.clear();}

else{

presence[2]=2;

lcd.clear(); lcd.setCursor(7,0); lcd.print("SEE YOU");

lcd.setCursor(7, 2); lcd.print(names[2]); lcd.print(" !");

analogWrite(buzzer,50); digitalWrite(green\_led,HIGH); delay(1000);

digitalWrite(buzzer,LOW); digitalWrite(green\_led,LOW);delay(3000);

EEPROM.write(323,hour); EEPROM.write(324,minute); EEPROM.write(325,second);

presentNum--; EEPROM.write(1000,presentNum);

H=EEPROM.read(320);

M=EEPROM.read(321);

Hour=hour-H;

if(minute<M){ Hour--;

Min=(60-(M-minute)); }

if(minute>=M){ Min=minute-M; }

totHour=EEPROM.read(920); totMin=EEPROM.read(921);totMin=totMin+Min;

if(totMin>=60){Hour++;totMin=totMin-60;}

totHour=totHour+Hour;

EEPROM.write(920,totHour);

EEPROM.write(921,totMin);lcd.clear();}

}

else if(strcmp(response,rfid\_id[3])==0)//User1 rfid received

{

if(presence[3]==0 || presence[3]==2){

presence[3]=1;

lcd.clear(); lcd.setCursor(7,0); lcd.print("WELCOME");

lcd.setCursor(7, 2); lcd.print(names[3]); lcd.print(" !");

analogWrite(buzzer,50); digitalWrite(green\_led,HIGH); delay(1000);

digitalWrite(buzzer,LOW); digitalWrite(green\_led,LOW);delay(3000);

EEPROM.write(330,hour); EEPROM.write(331,minute); EEPROM.write(332,second);

presentNum++; EEPROM.write(1000,presentNum);lcd.clear();}

else{

presence[3]=2;

lcd.clear(); lcd.setCursor(7,0); lcd.print("SEE YOU");

lcd.setCursor(7, 2); lcd.print(names[3]); lcd.print(" !");

analogWrite(buzzer,50); digitalWrite(green\_led,HIGH); delay(1000);

digitalWrite(buzzer,LOW); digitalWrite(green\_led,LOW);delay(3000);

EEPROM.write(333,hour); EEPROM.write(334,minute); EEPROM.write(335,second);

presentNum--; EEPROM.write(1000,presentNum);

H=EEPROM.read(330);

M=EEPROM.read(331);

Hour=hour-H;

if(minute<M){ Hour--;

Min=(60-(M-minute)); }

if(minute>=M){ Min=minute-M; }

totHour=EEPROM.read(930); totMin=EEPROM.read(931);totMin=totMin+Min;

if(totMin>=60){Hour++;totMin=totMin-60;}

totHour=totHour+Hour;

EEPROM.write(930,totHour);

EEPROM.write(931,totMin);lcd.clear();}

}

else if(strcmp(response,rfid\_id[4])==0)//User1 rfid received

{

if(presence[4]==0 || presence[4]==2){

presence[4]=1;

lcd.clear(); lcd.setCursor(7,0); lcd.print("WELCOME");

lcd.setCursor(7, 2); lcd.print(names[4]); lcd.print(" !");

analogWrite(buzzer,50); digitalWrite(green\_led,HIGH); delay(1000);

digitalWrite(buzzer,LOW); digitalWrite(green\_led,LOW);delay(3000);

EEPROM.write(340,hour); EEPROM.write(341,minute); EEPROM.write(342,second);

presentNum++; EEPROM.write(1000,presentNum);lcd.clear();}

else{

presence[4]=2;

lcd.clear(); lcd.setCursor(7,0); lcd.print("SEE YOU");

lcd.setCursor(7, 2); lcd.print(names[4]); lcd.print(" !");

analogWrite(buzzer,50); digitalWrite(green\_led,HIGH); delay(1000);

digitalWrite(buzzer,LOW); digitalWrite(green\_led,LOW);delay(3000);

EEPROM.write(343,hour); EEPROM.write(344,minute); EEPROM.write(345,second);

presentNum--; EEPROM.write(1000,presentNum);

H=EEPROM.read(340);

M=EEPROM.read(341);

Hour=hour-H;

if(minute<M){ Hour--;

Min=(60-(M-minute)); }

if(minute>=M){ Min=minute-M; }

totHour=EEPROM.read(940); totMin=EEPROM.read(941);totMin=totMin+Min;

if(totMin>=60){Hour++;totMin=totMin-60;}

totHour=totHour+Hour;

EEPROM.write(940,totHour);

EEPROM.write(941,totMin);lcd.clear();}

}

else if(strcmp(response,rfid\_id[5])==0)//User1 rfid received

{

if(presence[5]==0 || presence[5]==2){

presence[5]=1;

lcd.clear(); lcd.setCursor(7,0); lcd.print("WELCOME");

lcd.setCursor(7, 2); lcd.print(names[5]); lcd.print(" !");

analogWrite(buzzer,50); digitalWrite(green\_led,HIGH); delay(1000);

digitalWrite(buzzer,LOW); digitalWrite(green\_led,LOW);delay(3000);

EEPROM.write(350,hour); EEPROM.write(351,minute); EEPROM.write(352,second);

presentNum++; EEPROM.write(1000,presentNum);lcd.clear();}

else {

presence[5]=2;

lcd.clear(); lcd.setCursor(7,0); lcd.print("SEE YOU");

lcd.setCursor(7, 2); lcd.print(names[5]); lcd.print(" !");

analogWrite(buzzer,50); digitalWrite(green\_led,HIGH); delay(1000);

digitalWrite(buzzer,LOW); digitalWrite(green\_led,LOW);delay(3000);

EEPROM.write(353,hour); EEPROM.write(354,minute); EEPROM.write(355,second);

presentNum--; EEPROM.write(1000,presentNum);

H=EEPROM.read(350);

M=EEPROM.read(351);

Hour=hour-H;

if(minute<M){ Hour--;

Min=(60-(M-minute)); }

if(minute>=M){ Min=minute-M; }

totHour=EEPROM.read(950); totMin=EEPROM.read(951);totMin=totMin+Min;

if(totMin>=60){Hour++;totMin=totMin-60;}

totHour=totHour+Hour;

EEPROM.write(950,totHour);

EEPROM.write(951,totMin);lcd.clear();}

}

else if(strcmp(response,rfid\_id[6])==0)//User1 rfid received

{

if(presence[6]==0 || presence[6]==2){

presence[6]=1;

lcd.clear(); lcd.setCursor(7,0); lcd.print("WELCOME");

lcd.setCursor(5, 2); lcd.print(names[6]); lcd.print(" !");

analogWrite(buzzer,50); digitalWrite(green\_led,HIGH); delay(1000);

digitalWrite(buzzer,LOW); digitalWrite(green\_led,LOW);delay(3000);

EEPROM.write(360,hour); EEPROM.write(361,minute); EEPROM.write(362,second);

presentNum++; EEPROM.write(1000,presentNum);lcd.clear();}

else{

presence[6]=2;

lcd.clear(); lcd.setCursor(7,0); lcd.print("SEE YOU");

lcd.setCursor(5, 2); lcd.print(names[6]); lcd.print(" !");

analogWrite(buzzer,50); digitalWrite(green\_led,HIGH); delay(1000);

digitalWrite(buzzer,LOW); digitalWrite(green\_led,LOW);delay(3000);

EEPROM.write(363,hour); EEPROM.write(364,minute); EEPROM.write(365,second);

presentNum--; EEPROM.write(1000,presentNum);

H=EEPROM.read(360);

M=EEPROM.read(361);

Hour=hour-H;

if(minute<M){ Hour--;

Min=(60-(M-minute)); }

if(minute>=M){ Min=minute-M; }

totHour=EEPROM.read(960); totMin=EEPROM.read(961);totMin=totMin+Min;

if(totMin>=60){Hour++;totMin=totMin-60;}

totHour=totHour+Hour;

EEPROM.write(960,totHour);

EEPROM.write(961,totMin);lcd.clear();}

}

else if(strcmp(response,rfid\_id[7])==0)//User1 rfid received

{

if(presence[7]==0 || presence[7]==2){

presence[7]=1;

lcd.clear(); lcd.setCursor(7,0); lcd.print("WELCOME");

lcd.setCursor(7, 2); lcd.print(names[7]); lcd.print(" !");

analogWrite(buzzer,50); digitalWrite(green\_led,HIGH); delay(1000);

digitalWrite(buzzer,LOW); digitalWrite(green\_led,LOW);delay(3000);

EEPROM.write(370,hour); EEPROM.write(371,minute); EEPROM.write(372,second);

presentNum++; EEPROM.write(1000,presentNum);lcd.clear();}

else{

presence[7]=2;

lcd.clear(); lcd.setCursor(7,0); lcd.print("SEE YOU");

lcd.setCursor(7, 2); lcd.print(names[7]); lcd.print(" !");

analogWrite(buzzer,50); digitalWrite(green\_led,HIGH); delay(1000);

digitalWrite(buzzer,LOW); digitalWrite(green\_led,LOW);delay(3000);

EEPROM.write(373,hour); EEPROM.write(374,minute); EEPROM.write(375,second);

presentNum--; EEPROM.write(1000,presentNum);

H=EEPROM.read(370);

M=EEPROM.read(371);

Hour=hour-H;

if(minute<M){ Hour--;

Min=(60-(M-minute)); }

if(minute>=M){ Min=minute-M; }

totHour=EEPROM.read(970); totMin=EEPROM.read(971);totMin=totMin+Min;

if(totMin>=60){Hour++;totMin=totMin-60;}

totHour=totHour+Hour;

EEPROM.write(970,totHour);

EEPROM.write(971,totMin);lcd.clear();}

}

else if(strcmp(response,rfid\_id[8])==0)//User1 rfid received

{

if(presence[8]==0 || presence[8]==2){

presence[8]=1;

lcd.clear(); lcd.setCursor(7,0); lcd.print("WELCOME");

lcd.setCursor(7, 2); lcd.print(names[8]); lcd.print(" !");

analogWrite(buzzer,50); digitalWrite(green\_led,HIGH); delay(1000);

digitalWrite(buzzer,LOW); digitalWrite(green\_led,LOW);delay(3000);

EEPROM.write(380,hour); EEPROM.write(381,minute); EEPROM.write(382,second);

presentNum++; EEPROM.write(1000,presentNum);lcd.clear();}

else{

presence[8]=2;

lcd.clear(); lcd.setCursor(7,0); lcd.print("SEE YOU");

lcd.setCursor(7, 2); lcd.print(names[8]); lcd.print(" !");

analogWrite(buzzer,50); digitalWrite(green\_led,HIGH); delay(1000);

digitalWrite(buzzer,LOW); digitalWrite(green\_led,LOW);delay(3000);

EEPROM.write(383,hour); EEPROM.write(384,minute); EEPROM.write(385,second);

presentNum--; EEPROM.write(1000,presentNum);

H=EEPROM.read(380);

M=EEPROM.read(381);

Hour=hour-H;

if(minute<M){ Hour--;

Min=(60-(M-minute)); }

if(minute>=M){ Min=minute-M; }

totHour=EEPROM.read(980); totMin=EEPROM.read(981);totMin=totMin+Min;

if(totMin>=60){Hour++;totMin=totMin-60;}

totHour=totHour+Hour;

EEPROM.write(980,totHour);

EEPROM.write(981,totMin);lcd.clear();}

}

else if(strcmp(response,rfid\_id[9])==0)//User1 rfid received

{

if(presence[9]==0 || presence[9]==2){

presence[9]=1;

lcd.clear(); lcd.setCursor(7,0); lcd.print("WELCOME");

lcd.setCursor(7, 2); lcd.print(names[9]); lcd.print(" !");

analogWrite(buzzer,50); digitalWrite(green\_led,HIGH); delay(1000);

digitalWrite(buzzer,LOW); digitalWrite(green\_led,LOW);delay(3000);

EEPROM.write(390,hour); EEPROM.write(391,minute); EEPROM.write(392,second);

presentNum++; EEPROM.write(1000,presentNum);lcd.clear();}

else{

presence[9]=2;

lcd.clear(); lcd.setCursor(7,0); lcd.print("SEE YOU");

lcd.setCursor(7, 2); lcd.print(names[9]); lcd.print(" !");

analogWrite(buzzer,50); digitalWrite(green\_led,HIGH); delay(1000);

digitalWrite(buzzer,LOW); digitalWrite(green\_led,LOW);delay(3000);

EEPROM.write(393,hour); EEPROM.write(394,minute); EEPROM.write(395,second);

presentNum--; EEPROM.write(1000,presentNum);

H=EEPROM.read(390);

M=EEPROM.read(391);

Hour=hour-H;

if(minute<M){ Hour--;

Min=(60-(M-minute)); }

if(minute>=M){ Min=minute-M; }

totHour=EEPROM.read(990); totMin=EEPROM.read(991);totMin=totMin+Min;

if(totMin>=60){Hour++;totMin=totMin-60;}

totHour=totHour+Hour;

EEPROM.write(990,totHour);

EEPROM.write(991,totMin);lcd.clear();}

}

EEPROM.write(1000,presentNum);

for(i=0;i<10;i++)

EEPROM.write(i,presence[i]);

}

}