int StartingWeek        = 1;

int Frequency           = 2;

int CurrentWeekNumber   = 51; // returns 1

// CurrentWeekNumber       = 51; // returns 1

// CurrentWeekNumber       = 29; // returns 1

int ValideMonths        = 0b0000000000000011; // here we have January and February

int CurrentMonth        = 1;                  // January

//-----------------------------------------------

byte StartAlarmHours     = 17;

byte StartAlarmMinutes   = 1;

byte AlarmDuration       = 2\*60; // 120 minutes = 2 hours

byte CurrentHours        = 19;

byte CurrentMinutes      = 2;

//------------------------------------------------

void setup(){

  Serial.begin(9600);

}

void loop() {

  delay(1000);

  Serial.print("Week is valide: ");

  Serial.println(CheckWeek(StartingWeek,Frequency,CurrentWeekNumber));

  Serial.print("Month is valide: ");

  Serial.println(CheckMonth(ValideMonths, CurrentMonth));

  Serial.print("Alarm is valide: ");

  Serial.println(CheckAlarm(StartAlarmHours, StartAlarmMinutes, AlarmDuration, CurrentHours, CurrentMinutes));

}

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

bool CheckAlarm(byte \_StartAlarmHours, byte \_StartAlarmMinutes, byte \_AlarmDuration, byte \_CurrentHours, byte \_CurrentMinutes ){

  int AlarmStart = (\_StartAlarmHours\*60) + \_StartAlarmMinutes;

  int AlarmStop = AlarmStart + \_AlarmDuration;

  int CurrentTime = (\_CurrentHours \*60) + \_CurrentMinutes;

  if (CurrentTime >= AlarmStart && CurrentTime <= AlarmStop ){

    return(true);

    } else {

    return(false);

  }

}

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

bool CheckWeek (byte \_StartingWeek,byte \_Frequency, byte \_CurrentWeekNumber ){

boolean CheckVal = false;

for (byte i=\_StartingWeek;i<=53; i=i+\_Frequency){

  if(i==\_CurrentWeekNumber){

  CheckVal = true;

  break;

  } else {

   CheckVal = false;

}

 }

return(CheckVal);

}

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

bool CheckMonth(int \_ValideMonths, byte \_CurrentMonth){

 return (bitRead(\_ValideMonths, \_CurrentMonth-1)) ; // array commence by 0 so Month -1

}