DAYANANDA SAGAR ACADEMY OF TECHNOLOGY AND MANAGEMENT

Dept. of Information Science & Engineering.

"Android based Wireless Load Control and Monitoring"

Under the guidance of
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PROBLEM STATEMENT

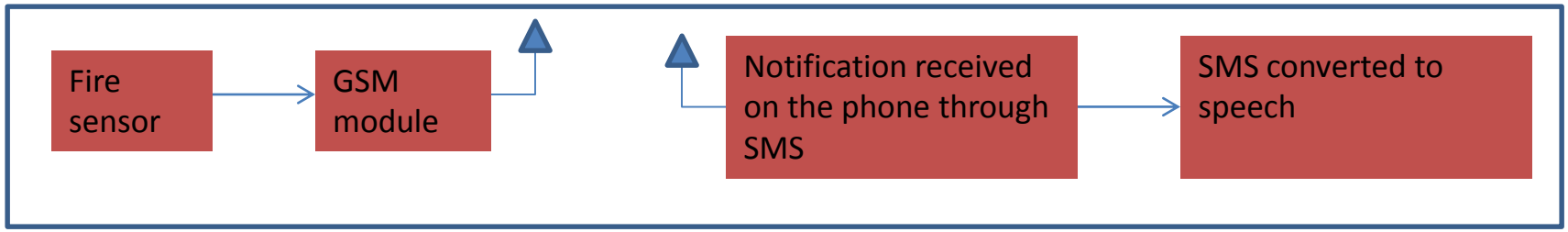
- While people are pursuing ever-growing high quality of their lives today. This leads to more and more facilities and home appliances poured into their buildings. How to control and manage these versatile facilities and appliances in a house?

- Usually conventional wall switches are located in different corners of a house and, thus necessitate the need of manual operations like pressing to turn the loads on or off. It becomes very difficult for the elderly or physically handicapped people to operate them. How to help them?

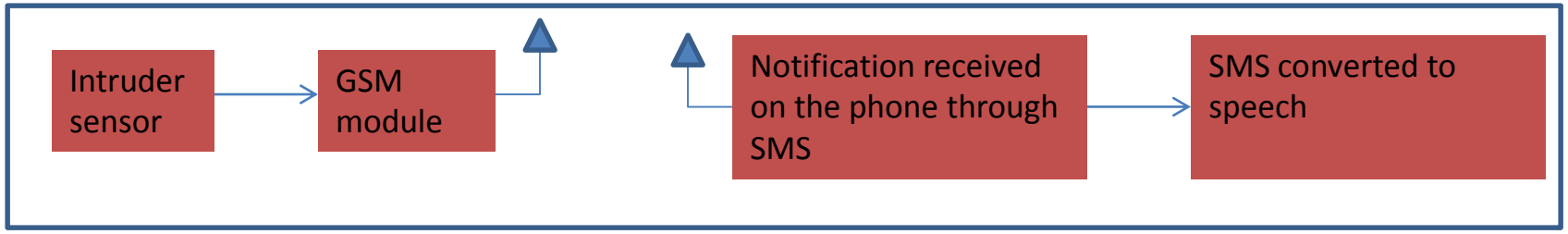
HIGH LEVEL DESIGN

MODULAR CLASSIFICATION

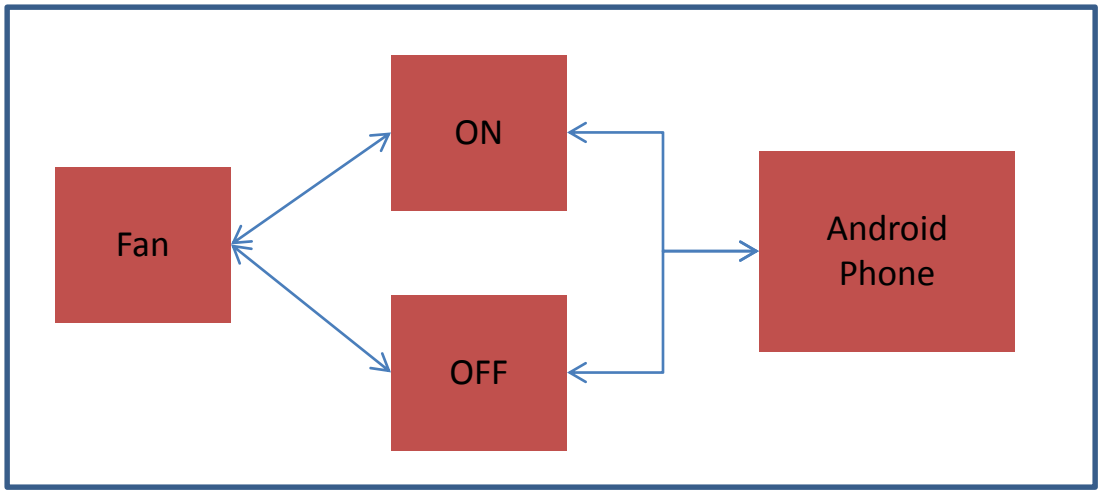
- **Fire Sensor Module**



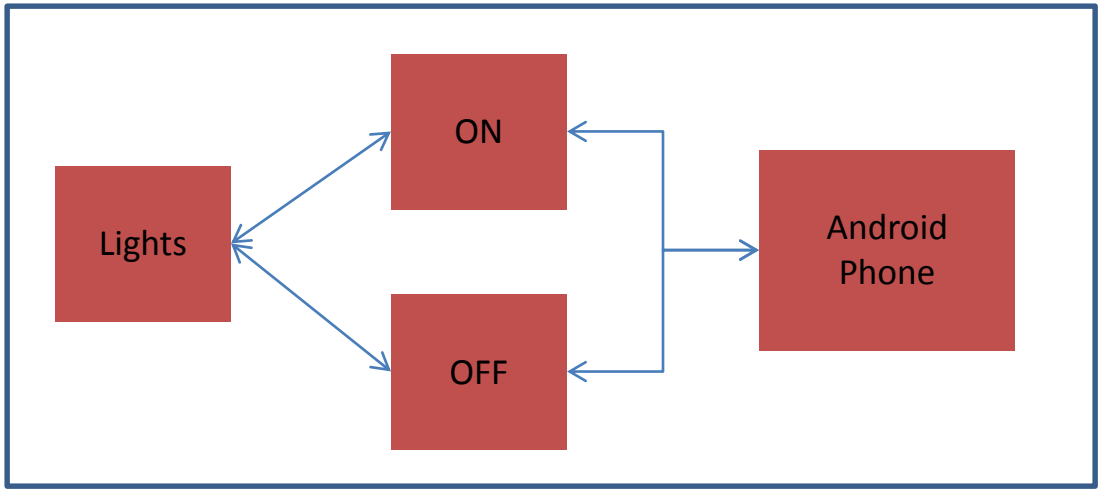
- **Intruder Alarm Sensor Module**



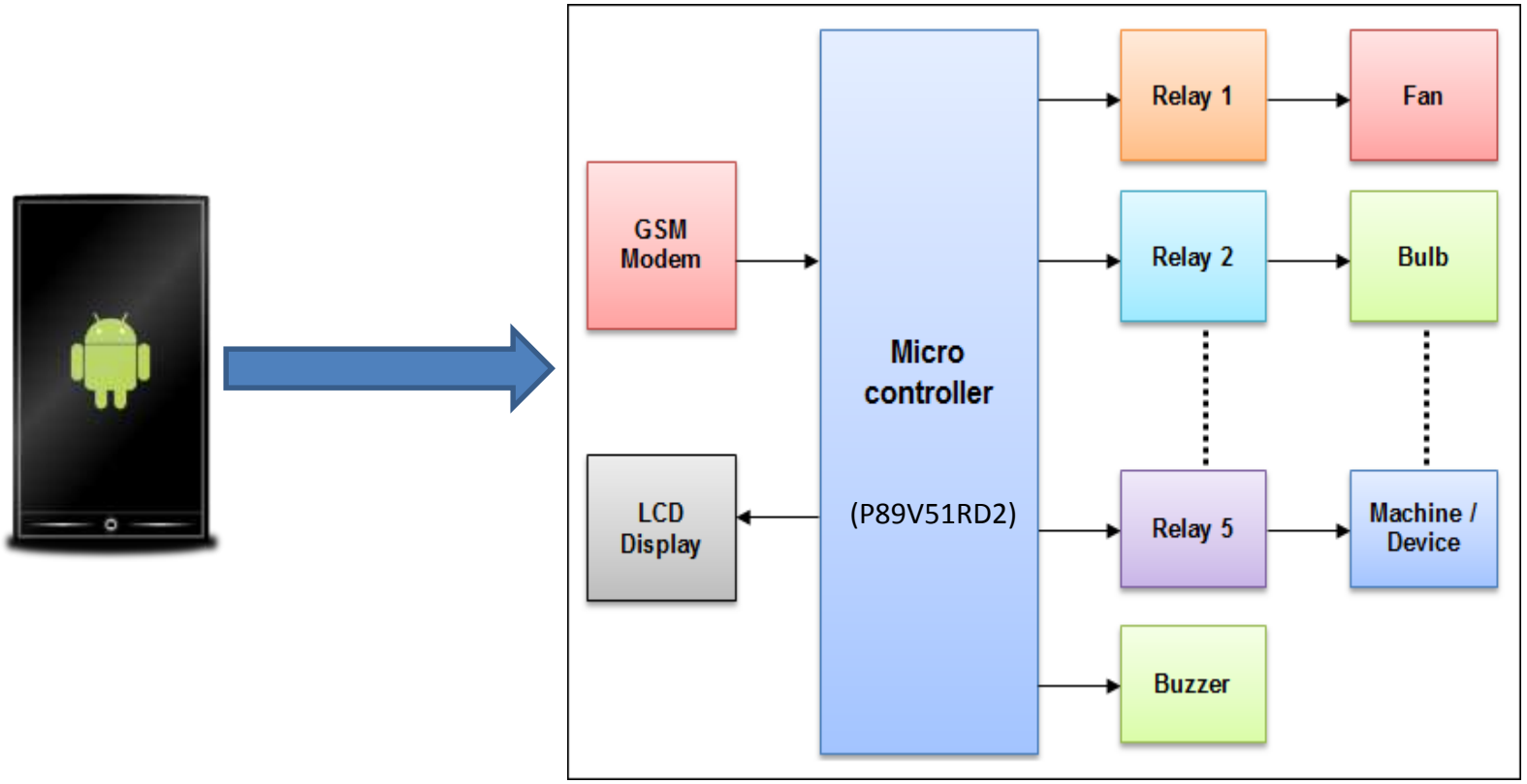
- **Fan Module**



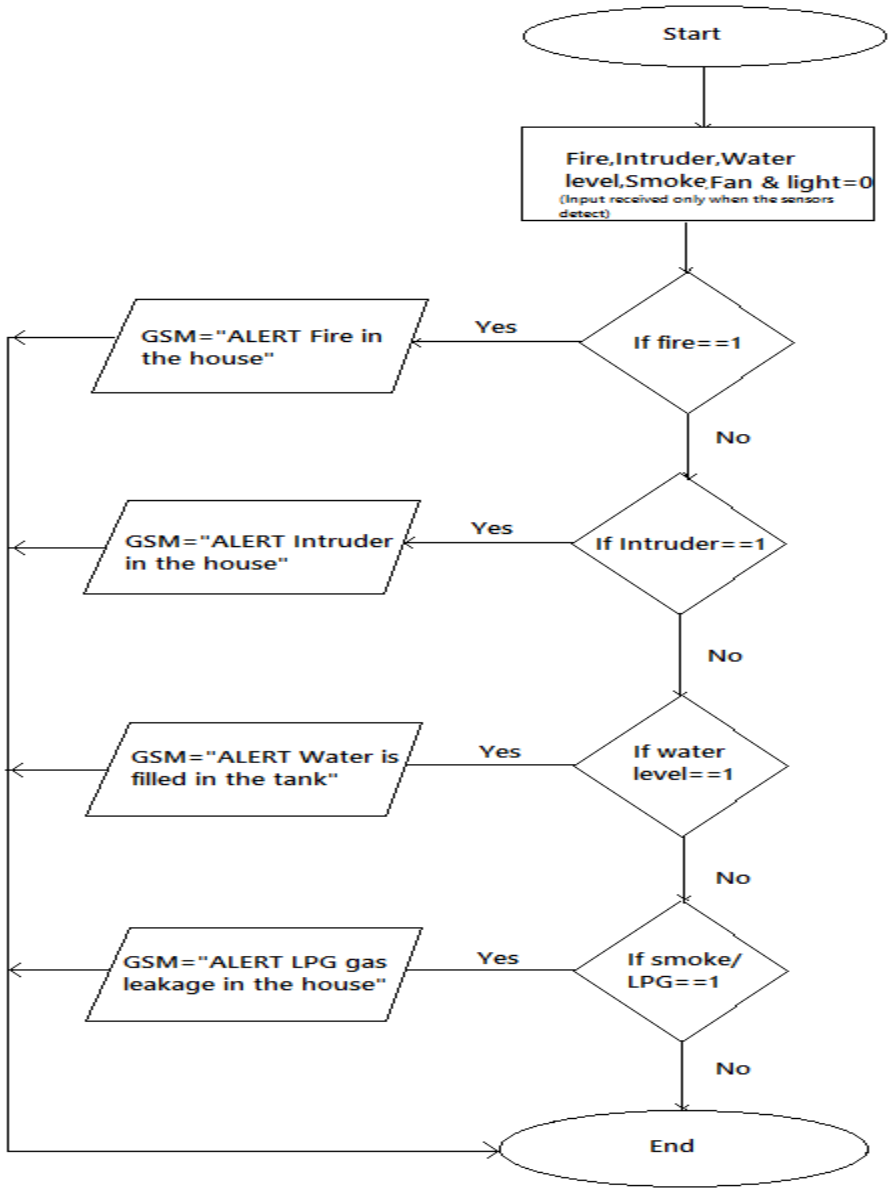
- **Lights Module**



SYSTEM ARCHITECTURE

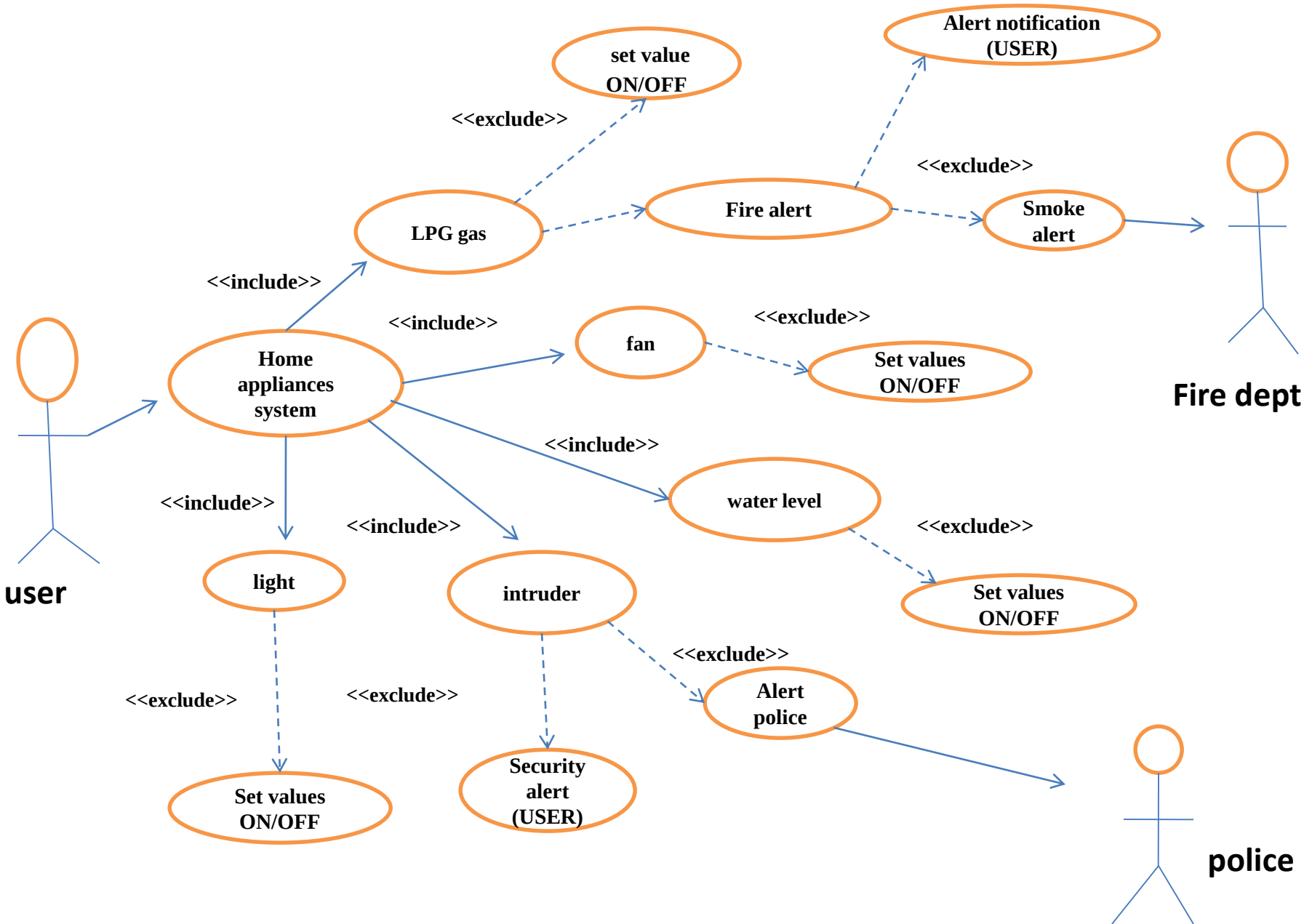


DATA FLOW DIAGRAM

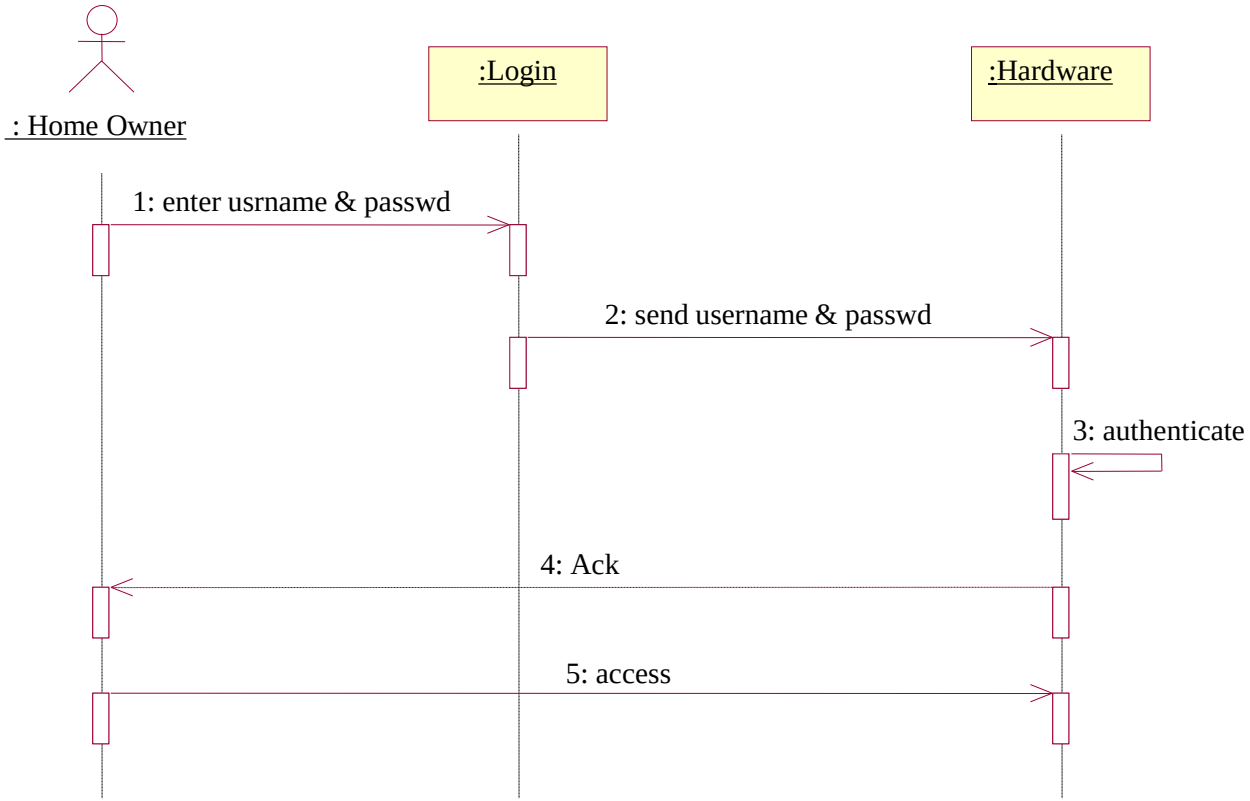


DETAILED DESIGN

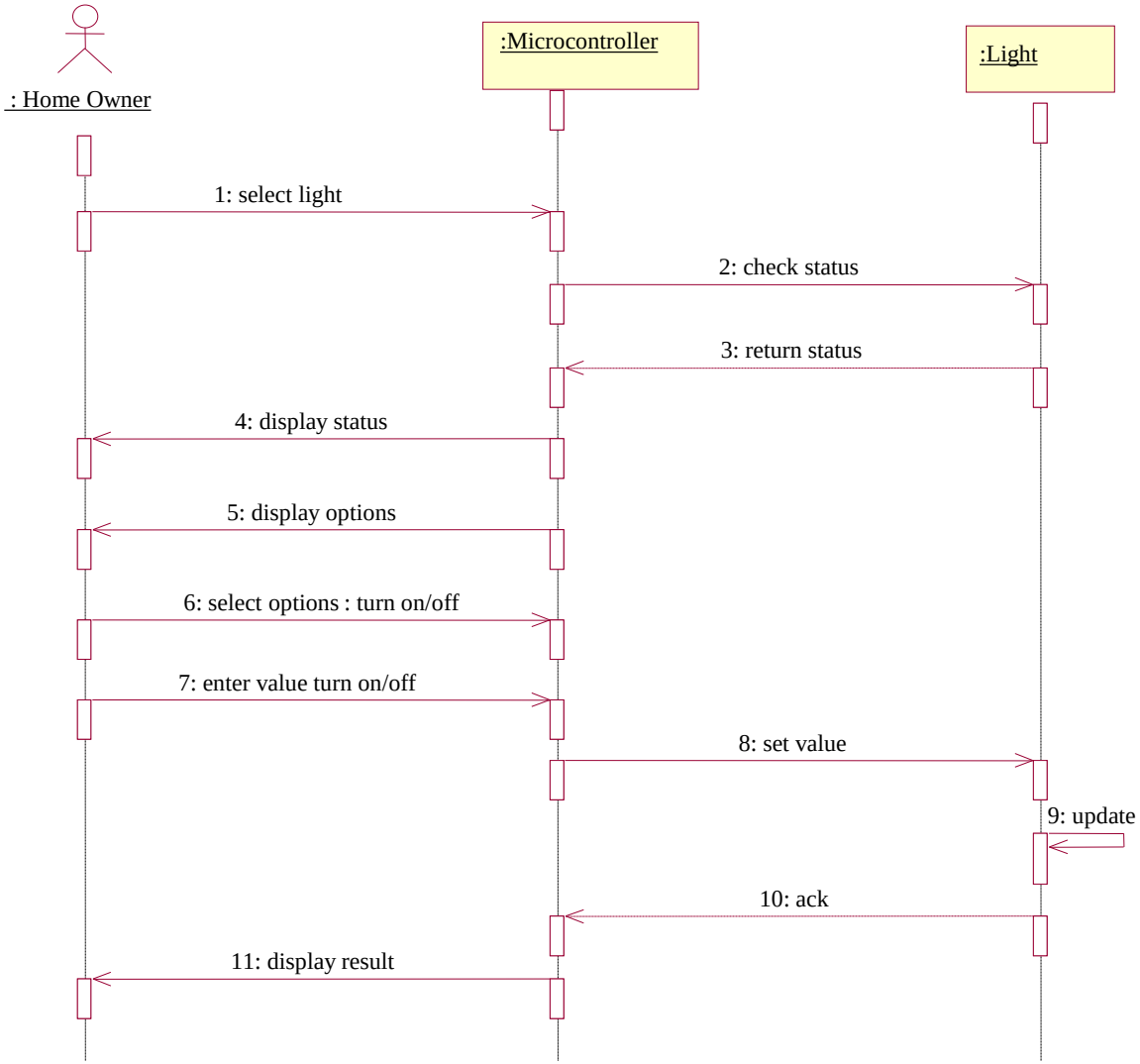
USE CASE DIAGRAM WITH SCENARIOS



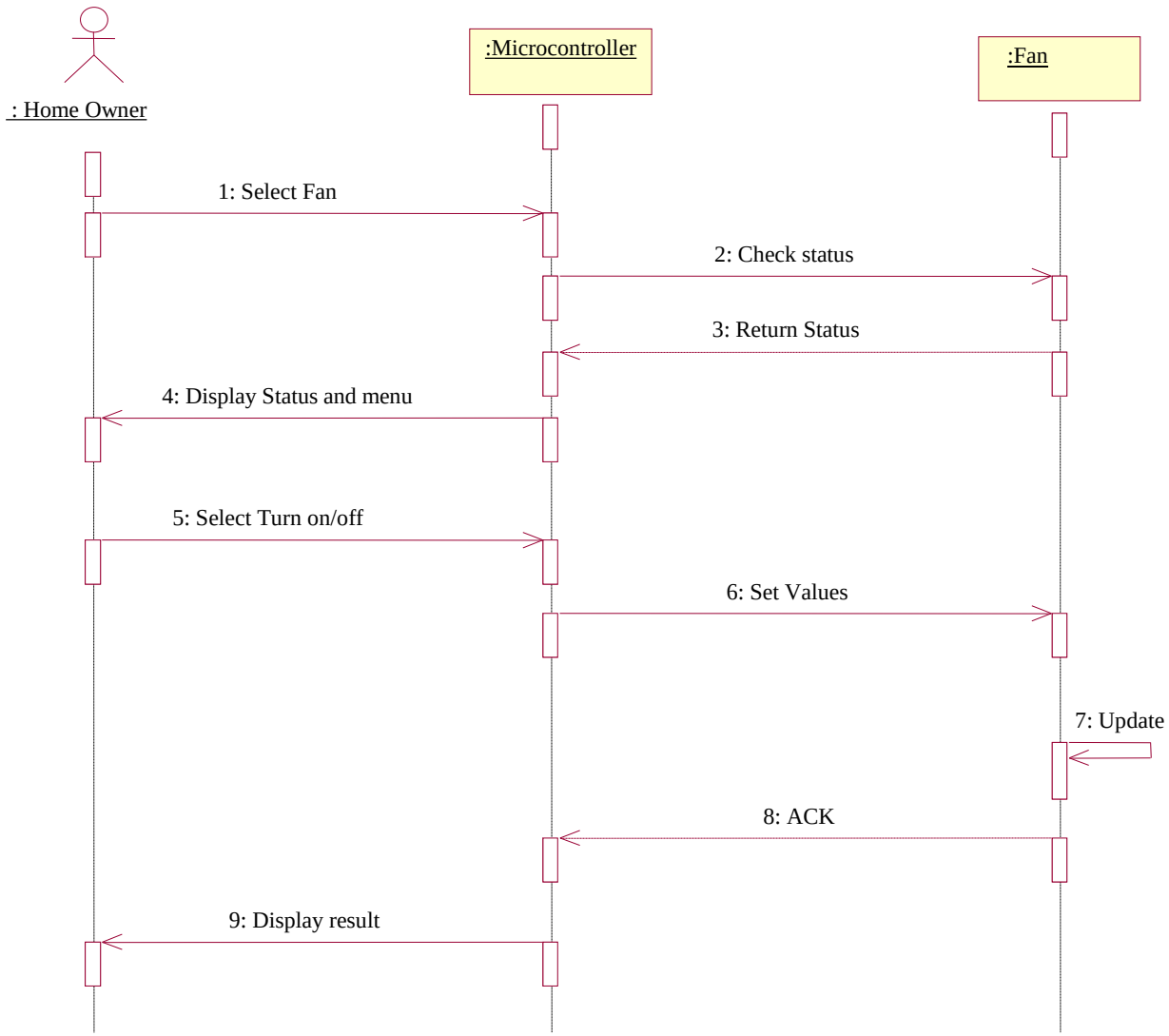
SEQUENCE DIAGRAM FOR LOGIN



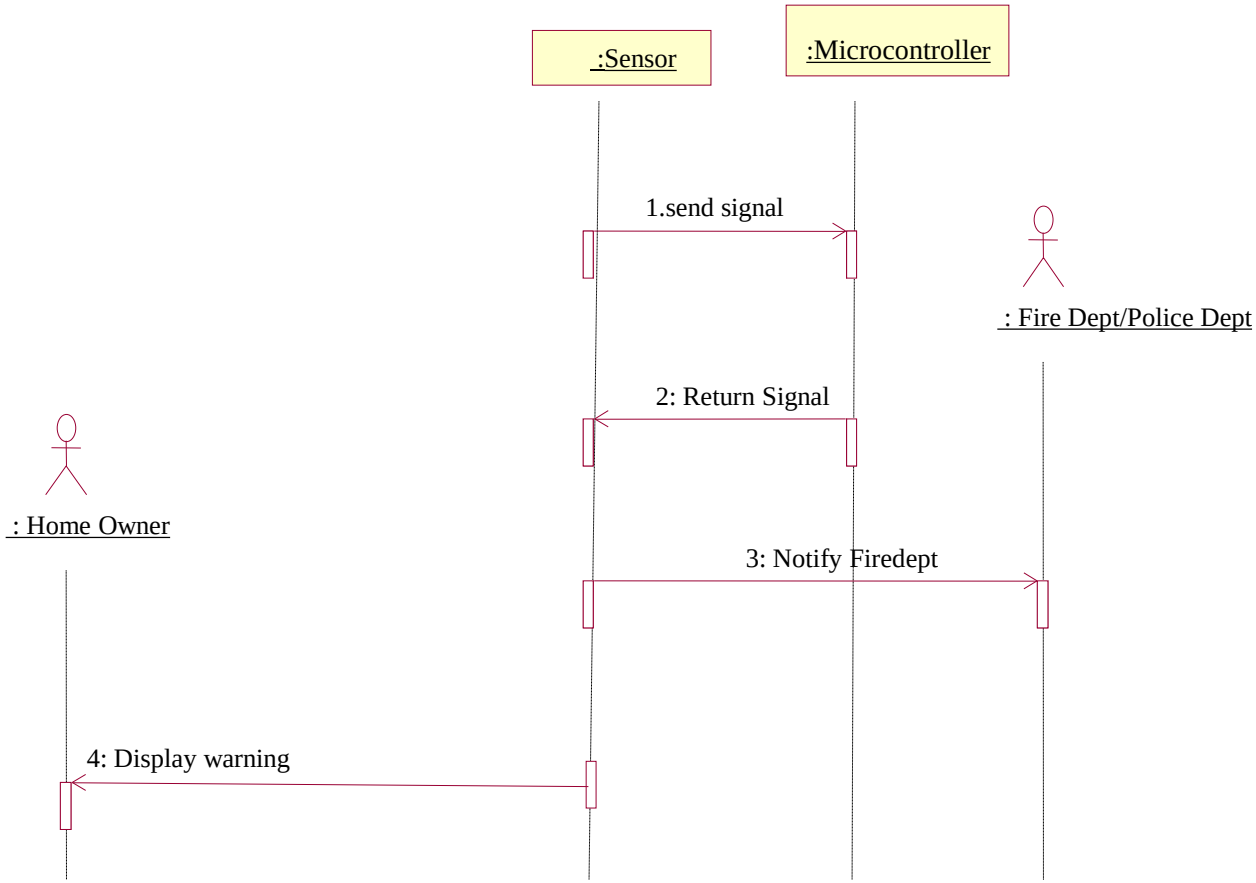
SEQUENCE DIAGRAM FOR CONTROLLING LIGHT



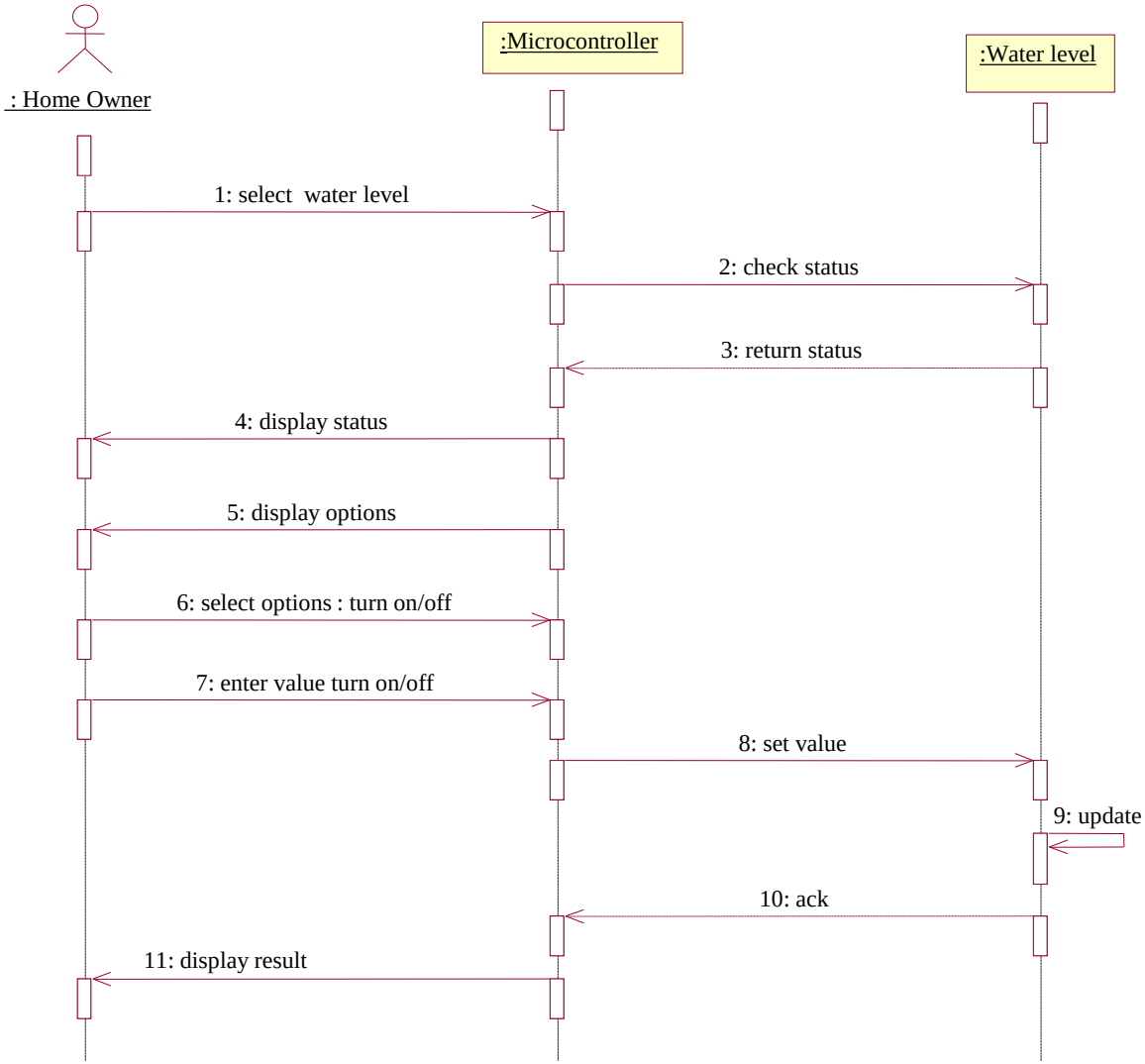
SEQUENCE DIAGRAM FOR CONTROLLING FAN



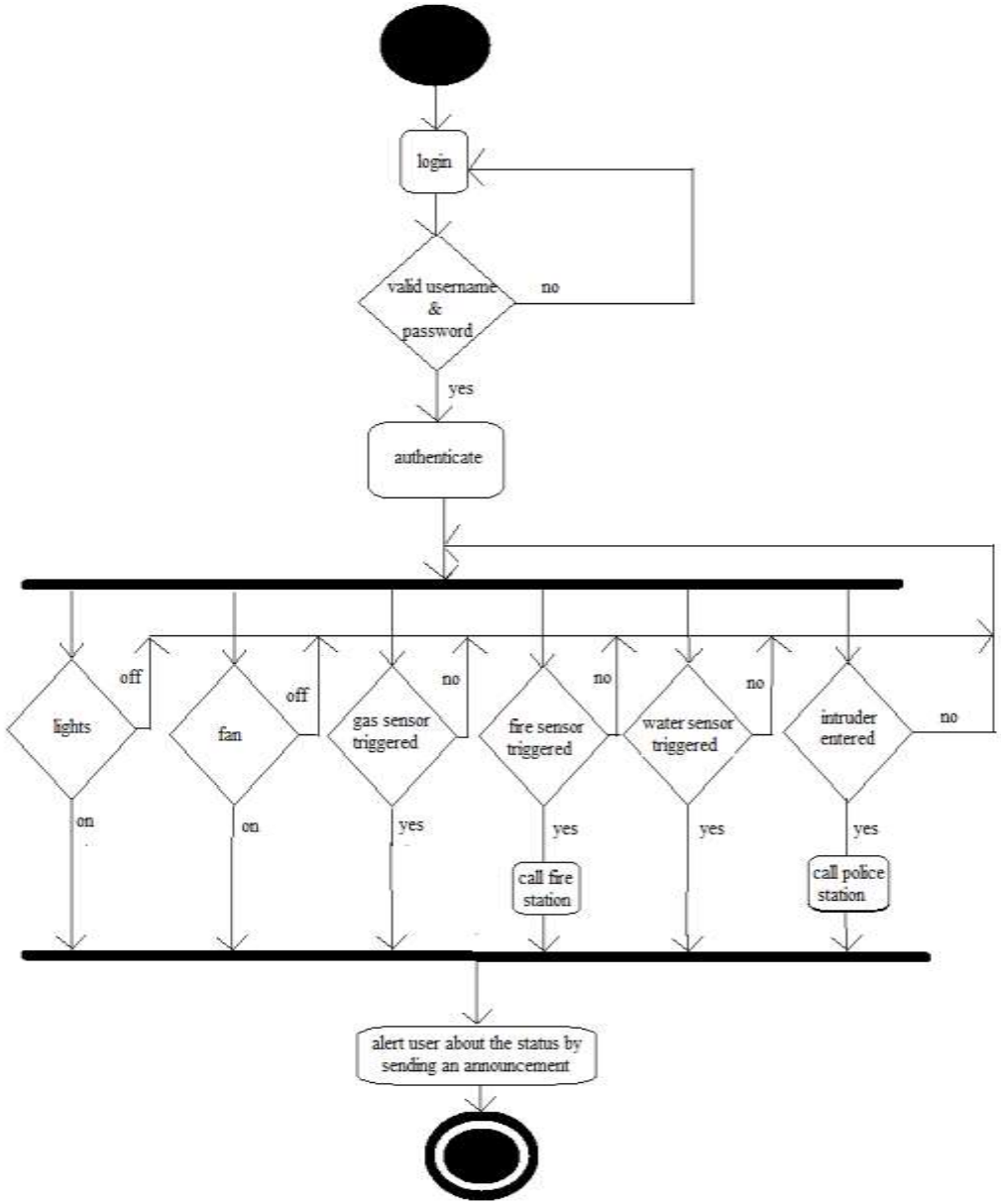
SEQUENCE DIAGRAM FOR FIRE ALARM/LPG LEAKAGE/INTRUDER



SEQUENCE DIAGRAM FOR WATER LEVEL DETECTION



ACTIVITY DIAGRAM



IMPLEMENTATION

MODULAR DESIGN

- **Fire sensor moduleI(FFS 05)**

  The Fire sensor is used to detect fire flames . The module makes use of Fire sensor and comparator to detect fire up to a range of 2 meters. It uses a input voltage of +5VDC.

- **Intruder detection module(PIR SENSOR)**

  The unit output is high whenever human’s motion is detected. In simple terms, it is a motion detector. This sensors measure infrared radiation emanating from objects in the field of view. Apparent motion is detected when an infrared emitting source with one temperature, such as human body, passes in front of source with another temperature, such as wall.

CONTD…

- **Fan Module**

  It is directly connected to the microcontroller, it has only two functions ON/OFF. The user can switch on the fan or switch off the fan using the android app.

- **Lights module**

  It is directly connected to the microcontroller, it has only two functions ON/OFF. The user can switch on the light or switch off the light using the android app.

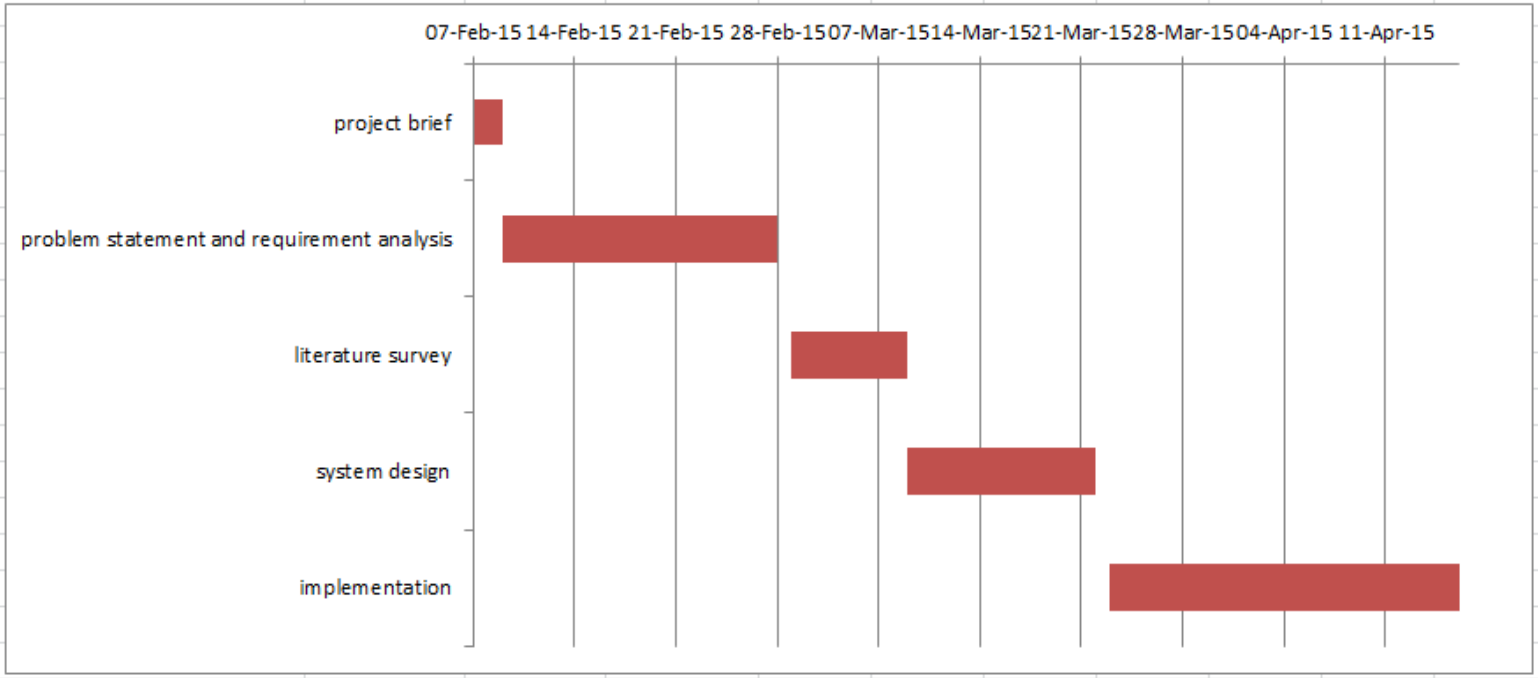
PSEDOCODE

```
if (IR_1 == 1))
{
        LCD_Message( 0x80, " HUMAN ENTERED  " );
        GSM_Send_SMS( Mb_Num1,"HUMAN ENTERED");

}
if(Float == 1)
{
        LCD_Message( 0x80, "WATER LEVEL HIGH" );
        GSM_Send_SMS( Mb_Num1,"WATER LEVEL HIGH");

}
if(Gas sensor == 1)
{
        LCD_Message( 0x80, "gas leackage" );
        GSM_Send_SMS( Mb_Num1,"gas leackage");

}
```

```
if( Bulb== 1)
{
                Bulb_Relay== 1
                LCD_Message( 0xC0, "   BULB IS ON    " );
                GSM_Send_SMS( Mb_Num1," BULB IS ON ");
}

if(Fire == 1)
{
                LCD_Message( 0x80, "  fire   " );
                GSM_Send_SMS( Mb_Num1,"fire");

   }


if(Fan== 1)
{
                Fan_Relay==1;
                LCD_Message( 0xC0, "   FAN IS ON    " );
                GSM_Send_SMS( Mb_Num1, "FAN IS ON" );
}
```

GANTT CHART

task	start date	duration	end date
project brief	07-Feb-15	2	08-02-15
problem statement and req	09-Feb-15	19	28-02-15
literature survey	01-Mar-15	8	08-Mar-15
system design	09-Mar-15	13	22-Mar-15
implementation	23-Mar-15	25	16-Apr-15



THANK YOU