Experiment Task Sheet

In this experiment, you will have two tasks; you will have three tasks if you can use at least one programming language. You should use the graphical automation editor on http://sfo.iamwz.online/editor.html to design the automation.

Task 1:

Turn the light on when the motion sensor detects any activity.
Event:
Sensor Event
Sensor:
motion sensor (service: someone passed)
Actuators:
Living_Room_Light (service: switch)

Task 2:

Design automation run at 7 am every weekday:
1. Open the curtains
2. wait for 3 seconds
3. check the brightness of the brightness sensor. If the value is lower than 100, set the brightness of the bedside lamp to 50%; otherwise, ask the smart speaker to play a random song.

Hint: you need to use if block and compare block in the logic section to achieve the goal.

Event:
Time Event
Sensors:
Brightness sensor (get brightness)
Actuators:
Curtain(open/close)
Lights (set brightness)
Smart Speaker (Play a random song)

Task 3:

Design a function named blinking, which receive two parameters, the first one called lights, which is a list of lights, the second one called times. This function contains a loop; in the loop,

turn on the lights that are off and turn off the lights that are on, then wait for 1 second. Design a scene named warning, create a list of lights given, use the function defined before to let them blink 100 times.

Hint: you can find useful blocks in the logic, loop and list section

Actuators:

Light1/Light2/Light3 (switch, check state)

For participants who have a programming background: The same goal writes in Python (with pre-defined devices and services)