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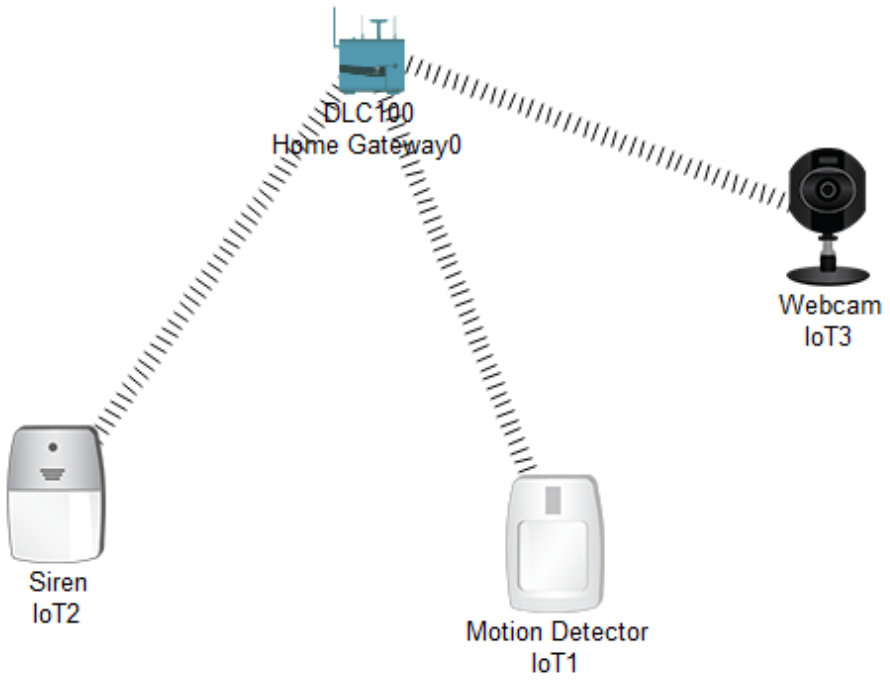
Subject: Computer Networks (01CT0503)	**Aim: Design and simulate IoT scenario.**	
Experiment No: 13	**Date: 17-11-2024**	**Enrolment No: 92200133021**

Aim: **Design and simulate IoT scenario. (Intruder Detection)**

Select a home gateway which will be acting as registration server for the IOT devices. Then will take motion detector, siren and camera which will be our cctv. So when the motion detector detects motion the siren will be alarmed.



Then we will take a tablet as a controller.

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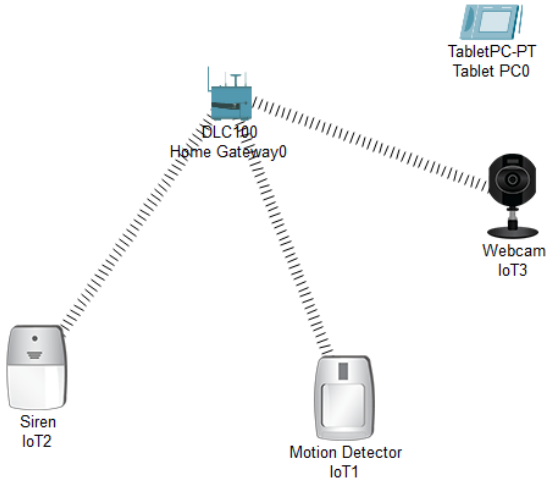
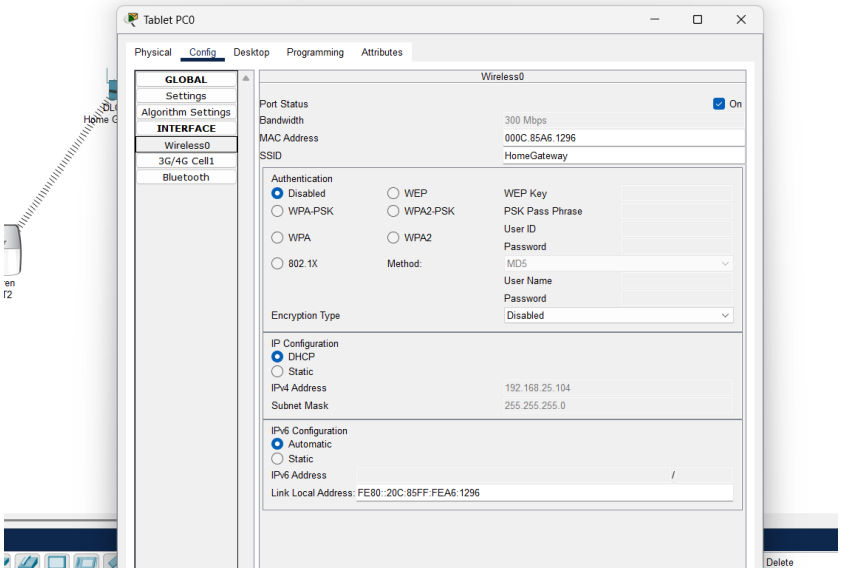


Based on gateway provides registration server and the wireless network to the IOT devices and everything these interface should be obtain from tablet/controller.

So lets connect the tablet to home gateway.

Go to config >> wirless>> and see the password in SSID and paste it in tablet's SSID so now it is connected.



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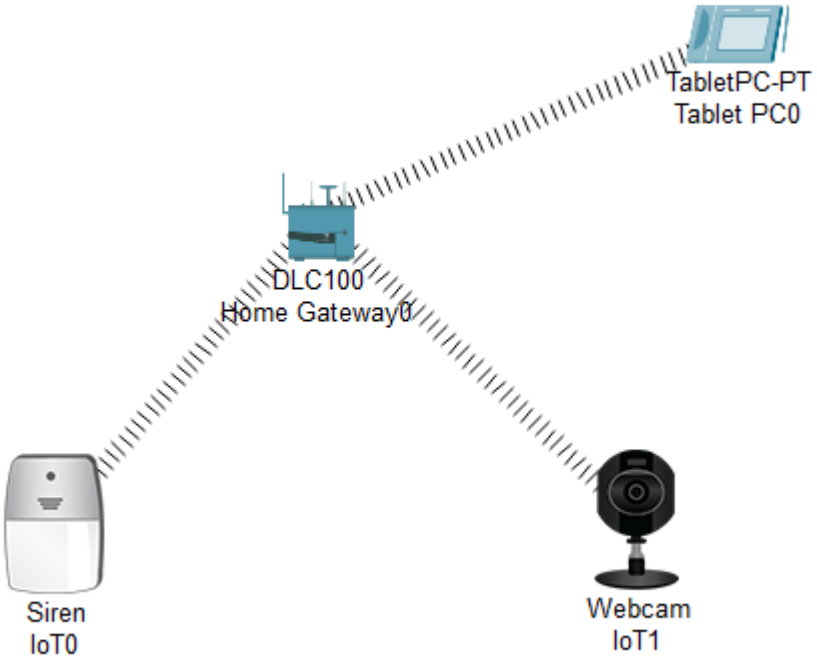

Change the iot server of all the iot devices , change it to homegateway

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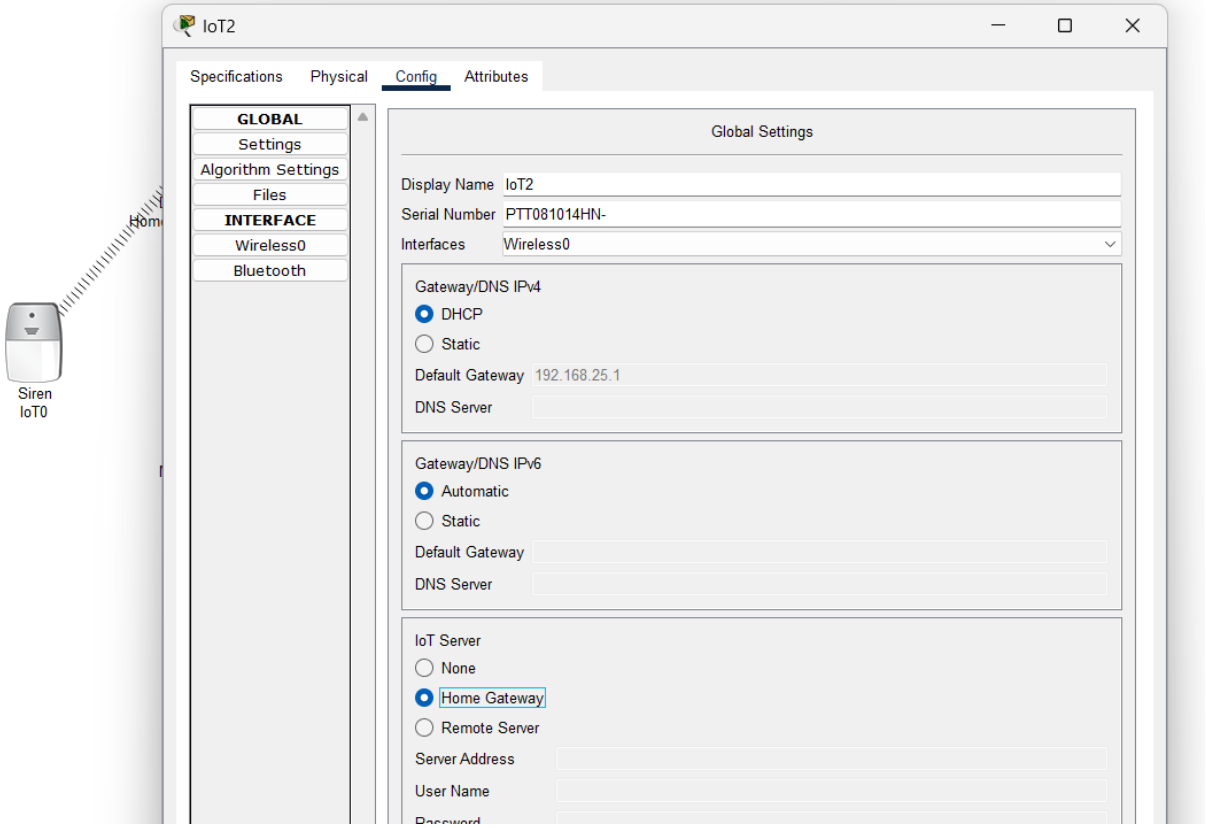

Now if click on crtl+alt we can check the motion sensing of motion detector by hovering the arrow around it.

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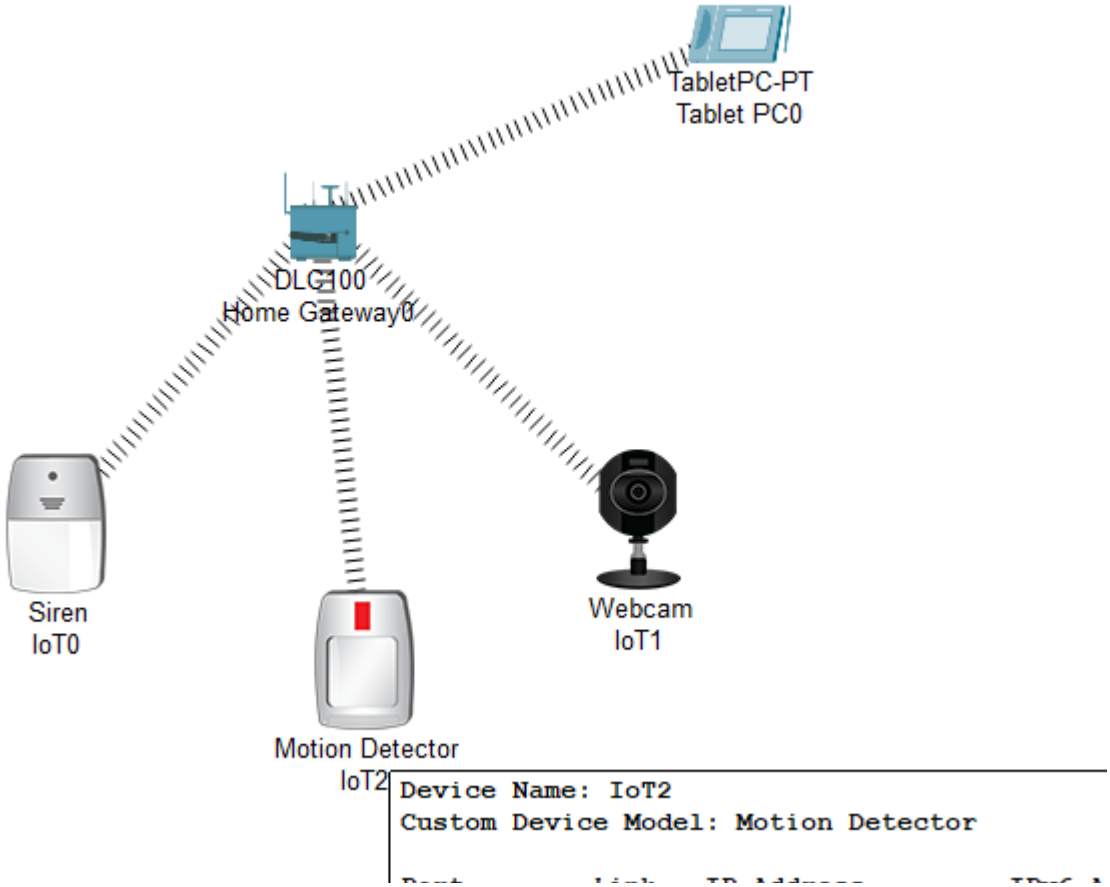

Now come to controller tablet and go to desktop and go to iot monitor
And by default homegateway will appear.

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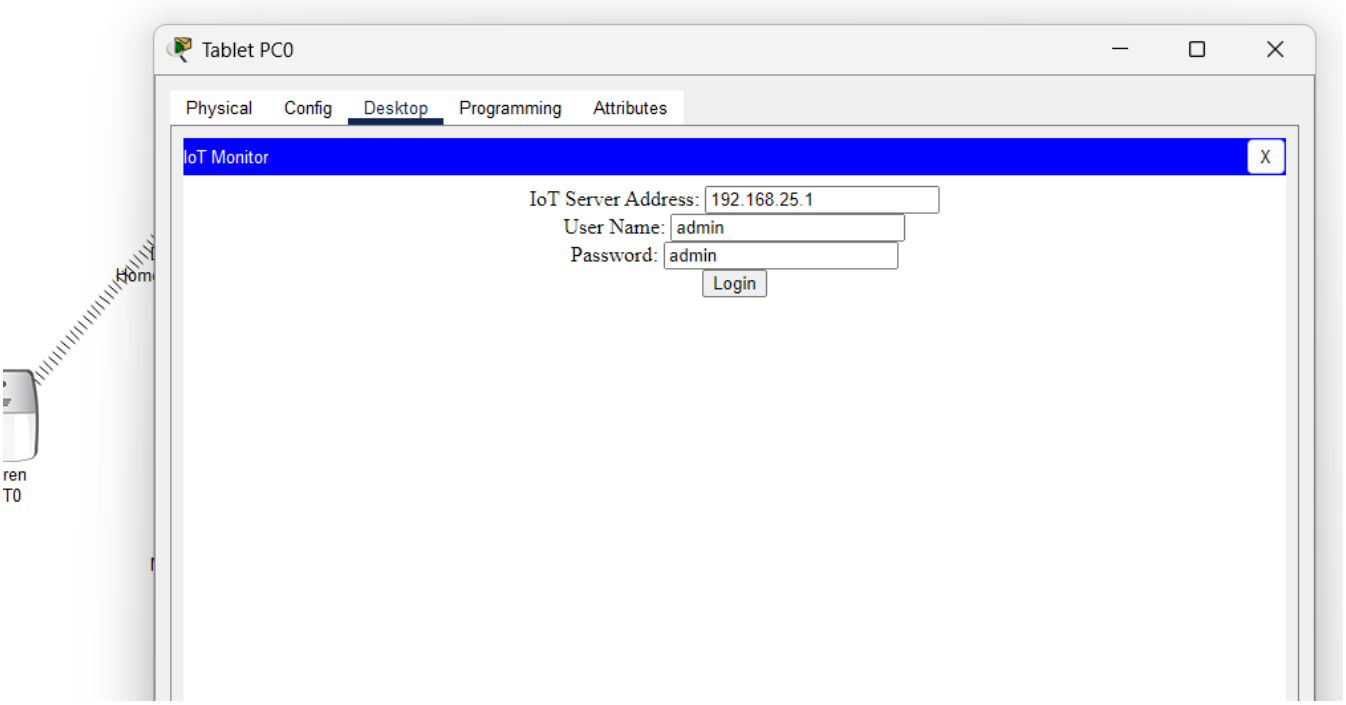
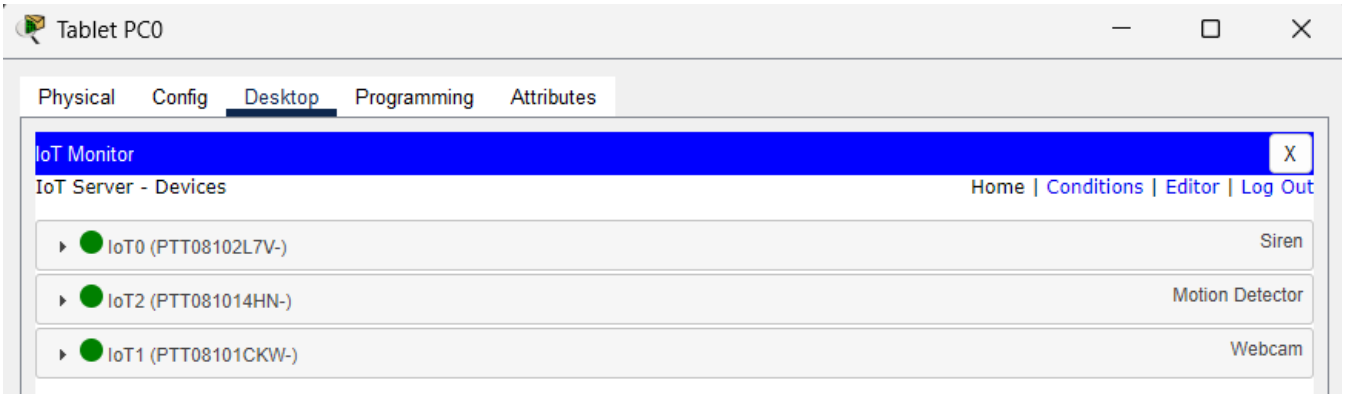


After you login you can now control everything from here



Let’s turn them on

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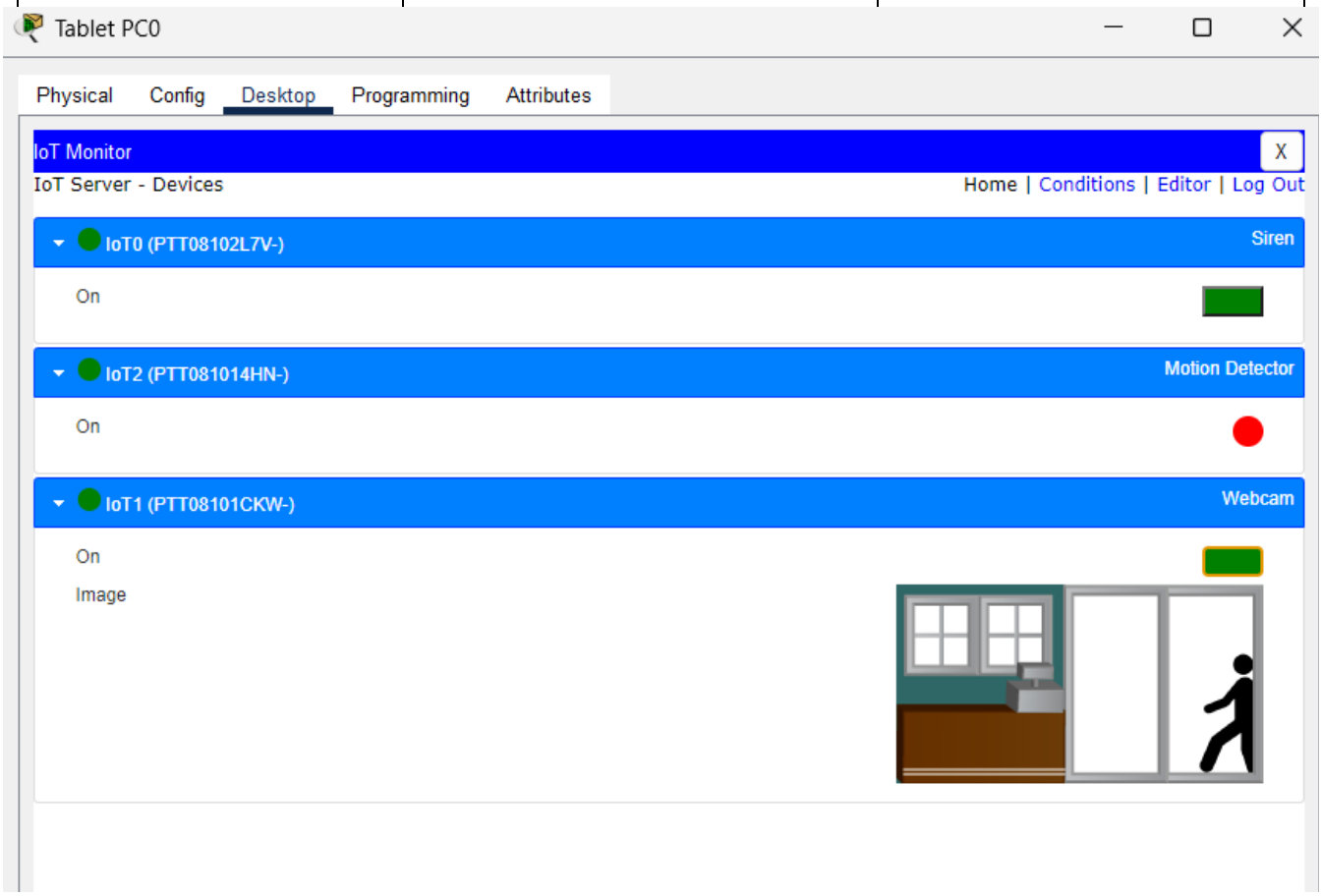

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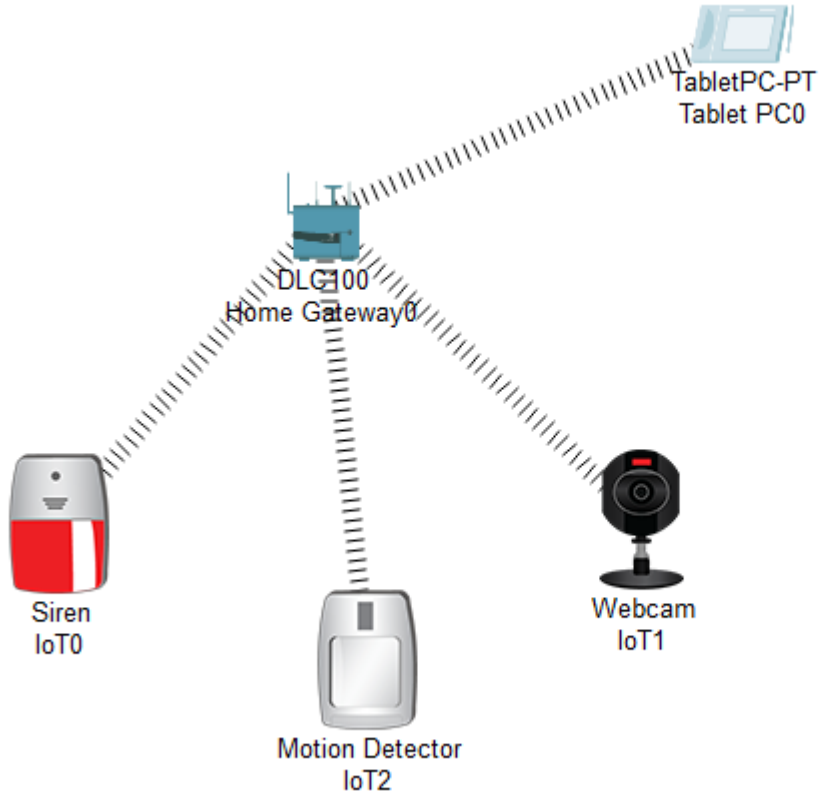

But since we don’t want to control it manually but instead detect automatically so Click on the conditions And add a condition for the same.

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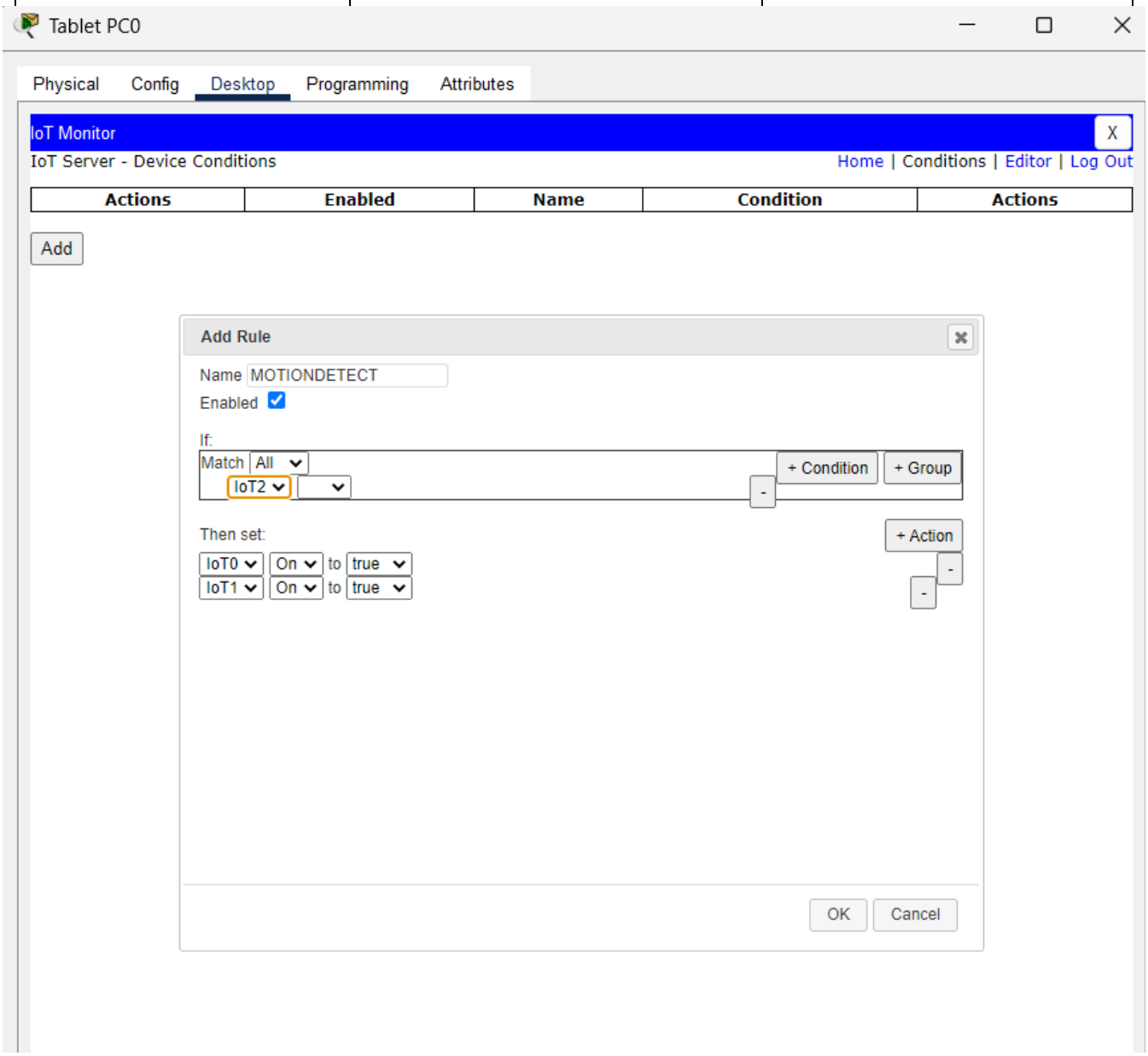

Now if hove over motion detector the siren will alarm but we still we need a condition to turn them back off after the condition Is over.

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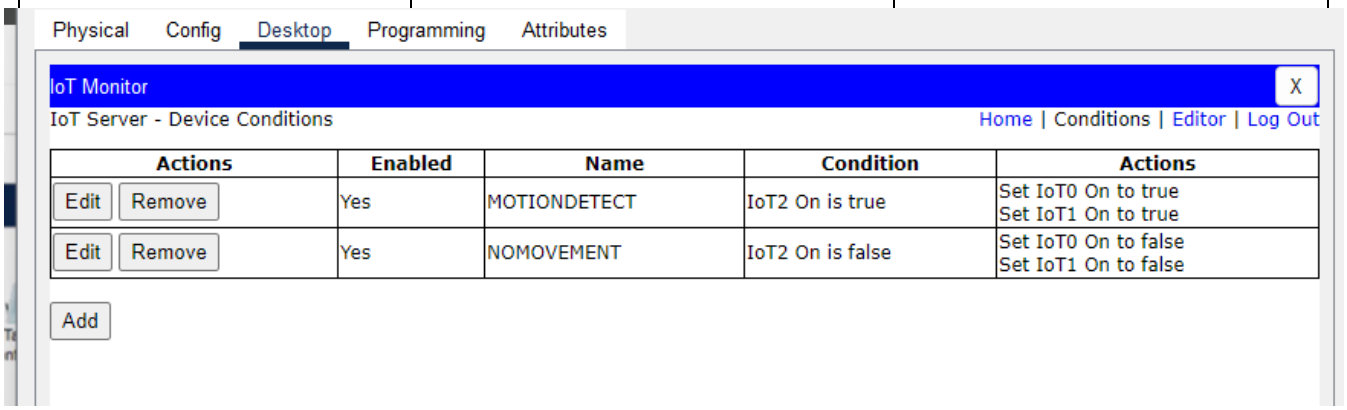
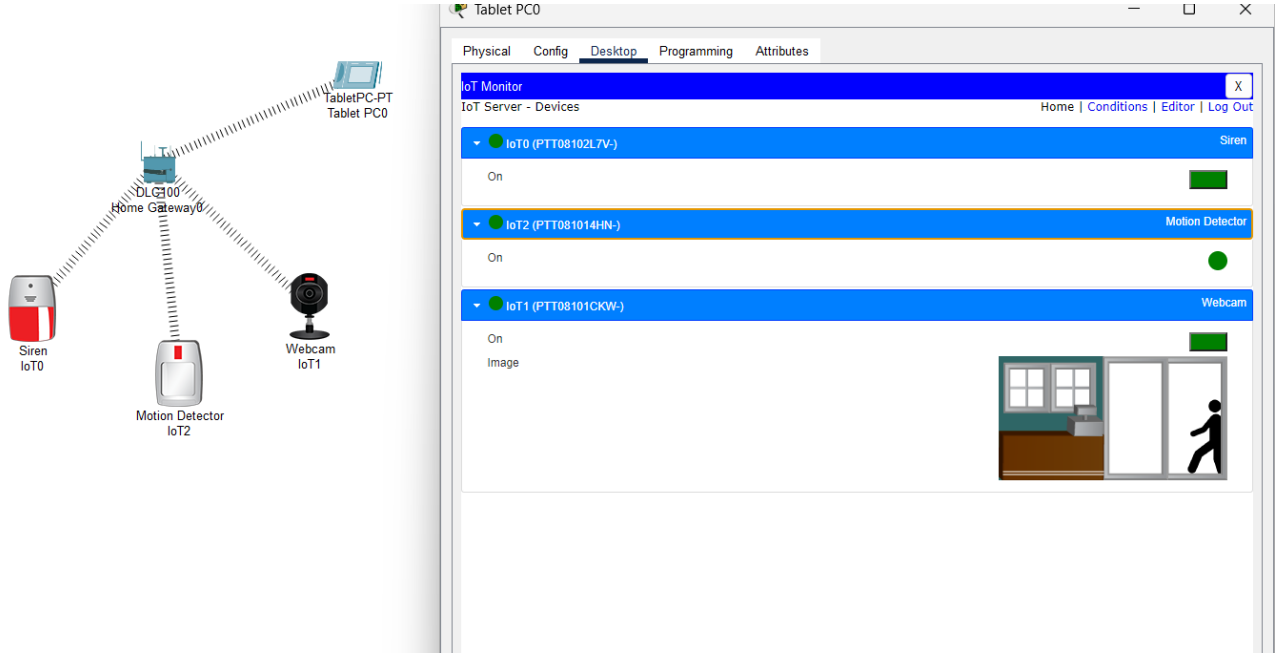


SO now when the thief will come the motion detector will sense , turn on the siren and camera and then turn off.



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Conclusion:

In this experiment, I designed a IoT scenario of theft detection using siren , camera and tablet as controller. By connecting them together and adding certain conditions I successfully established connection between them so when the thief comes the motion detector will detect and turn the siren while the camera will record.

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