C:\Code\IITMandras\IoT\Projects\C03-Project-01-Simple-Smart-Home\venv\Scripts\python.exe C:\Code\IITMandras\IoT\Projects\C03-Project-01-Simple-Smart-Home\main.py

SMART HOME SIMULATION STARTED

EDGE SERVER INITIATION STARTED

EDGE SERVER INITIATION COMPLETED SUCCESSFULLY AND CONNECTED TO BROKER

SECTION 1: STARTING REGISTRATION OF LIGHT DEVICES

REGISTERING LIGHT 1 IN KITCHEN

---------->>>>>>>>>> DEVICE TO EDGE Device:light\_1 , Type:LIGHT , Room:Kitchen CMD:REGISTER\_ME

<<<<<<<-------------EDGE TO DEVICE Device:light\_1 , Type:LIGHT , Room:Kitchen CMD:ACK\_Registeration

REGISTERING LIGHT 2 IN BED ROOM 1

---------->>>>>>>>>> DEVICE TO EDGE Device:light\_2 , Type:LIGHT , Room:Bed Room1 CMD:REGISTER\_ME

<<<<<<<-------------EDGE TO DEVICE Device:light\_2 , Type:LIGHT , Room:Bed Room1 CMD:ACK\_Registeration

REGISTERING LIGHT 3 IN GARAGE

---------->>>>>>>>>> DEVICE TO EDGE Device:light\_3 , Type:LIGHT , Room:Garage CMD:REGISTER\_ME

<<<<<<<-------------EDGE TO DEVICE Device:light\_3 , Type:LIGHT , Room:Garage CMD:ACK\_Registeration

REGISTERING LIGHT 4 IN BEDROOM2

---------->>>>>>>>>> DEVICE TO EDGE Device:light\_4 , Type:LIGHT , Room:Bed Room2 CMD:REGISTER\_ME

<<<<<<<-------------EDGE TO DEVICE Device:light\_4 , Type:LIGHT , Room:Bed Room2 CMD:ACK\_Registeration

REGISTERING LIGHT 5 IN LIVING ROOM

---------->>>>>>>>>> DEVICE TO EDGE Device:light\_5 , Type:LIGHT , Room:Living Room CMD:REGISTER\_ME

<<<<<<<-------------EDGE TO DEVICE Device:light\_5 , Type:LIGHT , Room:Living Room CMD:ACK\_Registeration

SMART HOME SECTION 1 STARTING REGISTRATION OF AC DEVICES

REGISTERING AC1 IN BED ROOM 1

---------->>>>>>>>>> DEVICE TO EDGE Device:ac\_1 , Type:AC , Room:Bed Room1 CMD:REGISTER\_ME

<<<<<<<-------------EDGE TO DEVICE Device:ac\_1 , Type:AC , Room:Bed Room1 CMD:ACK\_Registeration

REGISTERING AC2 IN LIVING ROOM

---------->>>>>>>>>> DEVICE TO EDGE Device:ac\_2 , Type:AC , Room:Living Room CMD:REGISTER\_ME

<<<<<<<-------------EDGE TO DEVICE Device:ac\_2 , Type:AC , Room:Living Room CMD:ACK\_Registeration

REGISTERING AC3 IN LIVING ROOM

---------->>>>>>>>>> DEVICE TO EDGE Device:ac\_3 , Type:AC , Room:Living Room CMD:REGISTER\_ME

<<<<<<<-------------EDGE TO DEVICE Device:ac\_3 , Type:AC , Room:Living Room CMD:ACK\_Registeration

ALL DEVICES REGISTERED SUCCESSFULLY REGISTERED IDS:

['light\_1', 'light\_2', 'light\_3', 'light\_4', 'light\_5', 'ac\_1', 'ac\_2', 'ac\_3']

SECTION 2.A.1 STARTING TO GET ALL DEVICES STATUS BY DEVICE ID

GET STATUS COMMAND SENDING TO LIGHT1

<<<<<<<-------------EDGE TO DEVICE Device:light\_1 , Type:LIGHT , Room:Kitchen CMD:GET\_STATUS CALL\_REASON:DEVICE\_ID

---------->>>>>>>>>> DEVICE TO EDGE Device:light\_1 , Type:LIGHT , Room:Kitchen CMD:GET\_STATUS CALL\_REASON:DEVICE\_ID REPLY

STATUS Device:light\_1 , Type:LIGHT , Room:Kitchen ,SwitchState:OFF Device Intensity:LOW CMD:GET\_STATUS REPLY

GET STATUS COMMAND SENDING TO LIGHT2

<<<<<<<-------------EDGE TO DEVICE Device:light\_2 , Type:LIGHT , Room:Bed Room1 CMD:GET\_STATUS CALL\_REASON:DEVICE\_ID

---------->>>>>>>>>> DEVICE TO EDGE Device:light\_2 , Type:LIGHT , Room:Bed Room1 CMD:GET\_STATUS CALL\_REASON:DEVICE\_ID REPLY

STATUS Device:light\_2 , Type:LIGHT , Room:Bed Room1 ,SwitchState:OFF Device Intensity:LOW CMD:GET\_STATUS REPLY

GET STATUS COMMAND SENDING TO LIGHT3

<<<<<<<-------------EDGE TO DEVICE Device:light\_3 , Type:LIGHT , Room:Garage CMD:GET\_STATUS CALL\_REASON:DEVICE\_ID

---------->>>>>>>>>> DEVICE TO EDGE Device:light\_3 , Type:LIGHT , Room:Garage CMD:GET\_STATUS CALL\_REASON:DEVICE\_ID REPLY

STATUS Device:light\_3 , Type:LIGHT , Room:Garage ,SwitchState:OFF Device Intensity:LOW CMD:GET\_STATUS REPLY

GET STATUS COMMAND SENDING TO LIGHT4

<<<<<<<-------------EDGE TO DEVICE Device:light\_4 , Type:LIGHT , Room:Bed Room2 CMD:GET\_STATUS CALL\_REASON:DEVICE\_ID

---------->>>>>>>>>> DEVICE TO EDGE Device:light\_4 , Type:LIGHT , Room:Bed Room2 CMD:GET\_STATUS CALL\_REASON:DEVICE\_ID REPLY

STATUS Device:light\_4 , Type:LIGHT , Room:Bed Room2 ,SwitchState:OFF Device Intensity:LOW CMD:GET\_STATUS REPLY

GET STATUS COMMAND SENDING TO LIGHT5

<<<<<<<-------------EDGE TO DEVICE Device:light\_5 , Type:LIGHT , Room:Living Room CMD:GET\_STATUS CALL\_REASON:DEVICE\_ID

---------->>>>>>>>>> DEVICE TO EDGE Device:light\_5 , Type:LIGHT , Room:Living Room CMD:GET\_STATUS CALL\_REASON:DEVICE\_ID REPLY

STATUS Device:light\_5 , Type:LIGHT , Room:Living Room ,SwitchState:OFF Device Intensity:LOW CMD:GET\_STATUS REPLY

GET STATUS COMMAND SENDING TO AC1

<<<<<<<-------------EDGE TO DEVICE Device:ac\_1 , Type:AC , Room:Bed Room1 CMD:GET\_STATUS CALL\_REASON:DEVICE\_ID

---------->>>>>>>>>> DEVICE TO EDGE Device:ac\_1 , Type:AC , Room:Bed Room1 CMD:GET\_STATUS REPLY

STATUS Device:ac\_1 , Type:AC , Room:Bed Room1 ,SwitchState:OFF Device Temprature:22 CMD:GET\_STATUS CALL\_REASON:DEVICE\_ID REPLY

GET STATUS COMMAND SENDING TO AC2

<<<<<<<-------------EDGE TO DEVICE Device:ac\_2 , Type:AC , Room:Living Room CMD:GET\_STATUS CALL\_REASON:DEVICE\_ID

---------->>>>>>>>>> DEVICE TO EDGE Device:ac\_2 , Type:AC , Room:Living Room CMD:GET\_STATUS REPLY

STATUS Device:ac\_2 , Type:AC , Room:Living Room ,SwitchState:OFF Device Temprature:22 CMD:GET\_STATUS CALL\_REASON:DEVICE\_ID REPLY

GET STATUS COMMAND SENDING TO AC3

<<<<<<<-------------EDGE TO DEVICE Device:ac\_3 , Type:AC , Room:Living Room CMD:GET\_STATUS CALL\_REASON:DEVICE\_ID

---------->>>>>>>>>> DEVICE TO EDGE Device:ac\_3 , Type:AC , Room:Living Room CMD:GET\_STATUS REPLY

STATUS Device:ac\_3 , Type:AC , Room:Living Room ,SwitchState:OFF Device Temprature:22 CMD:GET\_STATUS CALL\_REASON:DEVICE\_ID REPLY

SECTION 2.A.2 STARTING TO GET ALL DEVICES STATUS BY DEVICE TYPE AS LIGHT

STATUS Device:light\_3 , Type:LIGHT , Room:Garage ,SwitchState:OFF Device Intensity:LOW CMD:GET\_STATUS CALL\_REASON:DEVICE\_TYPE

STATUS Device:light\_4 , Type:LIGHT , Room:Bed Room2 ,SwitchState:OFF Device Intensity:LOW CMD:GET\_STATUS CALL\_REASON:DEVICE\_TYPE

STATUS Device:light\_2 , Type:LIGHT , Room:Bed Room1 ,SwitchState:OFF Device Intensity:LOW CMD:GET\_STATUS CALL\_REASON:DEVICE\_TYPE

STATUS Device:light\_1 , Type:LIGHT , Room:Kitchen ,SwitchState:OFF Device Intensity:LOW CMD:GET\_STATUS CALL\_REASON:DEVICE\_TYPE

STATUS Device:light\_5 , Type:LIGHT , Room:Living Room ,SwitchState:OFF Device Intensity:LOW CMD:GET\_STATUS CALL\_REASON:DEVICE\_TYPE

SECTION 2.A.2 STARTING TO GET ALL DEVICES STATUS BY DEVICE TYPE AS AC

STATUS Device:ac\_2 , Type:AC , Room:Living Room ,SwitchState:OFF Device Temprature:22 CMD:GET\_STATUS

STATUS Device:ac\_1 , Type:AC , Room:Bed Room1 ,SwitchState:OFF Device Temprature:22 CMD:GET\_STATUS

STATUS Device:ac\_3 , Type:AC , Room:Living Room ,SwitchState:OFF Device Temprature:22 CMD:GET\_STATUS

SECTION 2.A.2 STARTING TO GET ALL DEVICES STATUS BY ROOM AS LIVING ROOM

STATUS Device:ac\_3 , Type:AC , Room:Living Room ,SwitchState:OFF Device Temprature:22 CMD:GET\_STATUS CALL\_REASON:ROOM

STATUS Device:ac\_2 , Type:AC , Room:Living Room ,SwitchState:OFF Device Temprature:22 CMD:GET\_STATUS CALL\_REASON:ROOM

STATUS Device:light\_5 , Type:LIGHT , Room:Living Room ,SwitchState:OFF Device Intensity:LOW CMD:GET\_STATUS CALL\_REASON:ROOM

SECTION 2.A.2 STARTING TO GET ALL DEVICES STATUS BY HOME

STATUS Device:light\_1 , Type:LIGHT , Room:Kitchen ,SwitchState:OFF Device Intensity:LOW CMD:GET\_STATUS CALL\_REASON:HOME

STATUS Device:light\_3 , Type:LIGHT , Room:Garage ,SwitchState:OFF Device Intensity:LOW CMD:GET\_STATUS CALL\_REASON:HOME

STATUS Device:light\_5 , Type:LIGHT , Room:Living Room ,SwitchState:OFF Device Intensity:LOW CMD:GET\_STATUS CALL\_REASON:HOME

STATUS Device:ac\_1 , Type:AC , Room:Bed Room1 ,SwitchState:OFF Device Temprature:22 CMD:GET\_STATUS CALL\_REASON:HOME

STATUS Device:ac\_2 , Type:AC , Room:Living Room ,SwitchState:OFF Device Temprature:22 CMD:GET\_STATUS CALL\_REASON:HOME

STATUS Device:ac\_3 , Type:AC , Room:Living Room ,SwitchState:OFF Device Temprature:22 CMD:GET\_STATUS CALL\_REASON:HOME

STATUS Device:light\_2 , Type:LIGHT , Room:Bed Room1 ,SwitchState:OFF Device Intensity:LOW CMD:GET\_STATUS CALL\_REASON:HOME

STATUS Device:light\_4 , Type:LIGHT , Room:Bed Room2 ,SwitchState:OFF Device Intensity:LOW CMD:GET\_STATUS CALL\_REASON:HOME

SECTION 2.B STARTING TO SET ALL DEVICES SWITCH STATUS ON BY DEVICE ID

COMMAND SENDING TO LIGHT 1 TO SWITCH STATE:ON INTENSITY:MEDIUM

<<<<<<<-------------EDGE TO DEVICE Device:light\_1 , Type:LIGHT , Room:Kitchen CMD:SET\_STATUS CALL\_REASON:DEVICE\_ID

---------->>>>>>>>>> DEVICE TO EDGE Device:light\_1 , Type:LIGHT , Room:Kitchen CMD:SET\_STATUS REPLY

STATUS Device:light\_1 , Type:LIGHT , Room:Kitchen ,SwitchState:ON Device Intensity:MEDIUM CMD:SET\_STATUS CALL\_REASON:DEVICE\_ID REPLY

SET COMMAND SENDING TO LIGHT 2 TO SWITCH STATE:ON INTENSITY:HIGH

<<<<<<<-------------EDGE TO DEVICE Device:light\_2 , Type:LIGHT , Room:Bed Room1 CMD:SET\_STATUS CALL\_REASON:DEVICE\_ID

---------->>>>>>>>>> DEVICE TO EDGE Device:light\_2 , Type:LIGHT , Room:Bed Room1 CMD:SET\_STATUS REPLY

STATUS Device:light\_2 , Type:LIGHT , Room:Bed Room1 ,SwitchState:ON Device Intensity:HIGH CMD:SET\_STATUS CALL\_REASON:DEVICE\_ID REPLY

SET COMMAND SENDING TO LIGHT 3 TO SWITCH STATE:ON INTENSITY:HIGH

<<<<<<<-------------EDGE TO DEVICE Device:light\_3 , Type:LIGHT , Room:Garage CMD:SET\_STATUS CALL\_REASON:DEVICE\_ID

---------->>>>>>>>>> DEVICE TO EDGE Device:light\_3 , Type:LIGHT , Room:Garage CMD:SET\_STATUS REPLY

STATUS Device:light\_3 , Type:LIGHT , Room:Garage ,SwitchState:ON Device Intensity:HIGH CMD:SET\_STATUS CALL\_REASON:DEVICE\_ID REPLY

SET COMMAND SENDING TO LIGHT 4 TO SWITCH STATE:ON INTENSITY:MEDIUM

<<<<<<<-------------EDGE TO DEVICE Device:light\_4 , Type:LIGHT , Room:Bed Room2 CMD:SET\_STATUS CALL\_REASON:DEVICE\_ID

---------->>>>>>>>>> DEVICE TO EDGE Device:light\_4 , Type:LIGHT , Room:Bed Room2 CMD:SET\_STATUS REPLY

STATUS Device:light\_4 , Type:LIGHT , Room:Bed Room2 ,SwitchState:ON Device Intensity:MEDIUM CMD:SET\_STATUS CALL\_REASON:DEVICE\_ID REPLY

SET COMMAND SENDING TO LIGHT 5 TO SWITCH STATE:ON INTENSITY:HIGH

<<<<<<<-------------EDGE TO DEVICE Device:light\_5 , Type:LIGHT , Room:Living Room CMD:SET\_STATUS CALL\_REASON:DEVICE\_ID

---------->>>>>>>>>> DEVICE TO EDGE Device:light\_5 , Type:LIGHT , Room:Living Room CMD:SET\_STATUS REPLY

STATUS Device:light\_5 , Type:LIGHT , Room:Living Room ,SwitchState:ON Device Intensity:HIGH CMD:SET\_STATUS CALL\_REASON:DEVICE\_ID REPLY

SET COMMAND SENDING TO AC 1 TO SWITCH STATE:ON TEMP:29

<<<<<<<-------------EDGE TO DEVICE Device:ac\_1 , Type:AC , Room:Bed Room1 CMD:SET\_STATUS CALL\_REASON:DEVICE\_ID

---------->>>>>>>>>> DEVICE TO EDGE Device:ac\_1 , Type:AC , Room:Bed Room1 CMD:SET\_STATUS REPLY

STATUS Device:ac\_1 , Type:AC , Room:Bed Room1 ,SwitchState:ON Device Temprature:29 CMD:SET\_STATUS CALL\_REASON:DEVICE\_ID REPLY

SET COMMAND SENDING TO AC 2 TO SWITCH STATE:ON TEMP:18

<<<<<<<-------------EDGE TO DEVICE Device:ac\_2 , Type:AC , Room:Living Room CMD:SET\_STATUS CALL\_REASON:DEVICE\_ID

---------->>>>>>>>>> DEVICE TO EDGE Device:ac\_2 , Type:AC , Room:Living Room CMD:SET\_STATUS REPLY

STATUS Device:ac\_2 , Type:AC , Room:Living Room ,SwitchState:ON Device Temprature:18 CMD:SET\_STATUS CALL\_REASON:DEVICE\_ID REPLY

SET COMMAND SENDING TO AC 3 TO SWITCH STATE:ON TEMP:27

<<<<<<<-------------EDGE TO DEVICE Device:ac\_3 , Type:AC , Room:Living Room CMD:SET\_STATUS CALL\_REASON:DEVICE\_ID

---------->>>>>>>>>> DEVICE TO EDGE Device:ac\_3 , Type:AC , Room:Living Room CMD:SET\_STATUS REPLY

STATUS Device:ac\_3 , Type:AC , Room:Living Room ,SwitchState:ON Device Temprature:27 CMD:SET\_STATUS CALL\_REASON:DEVICE\_ID REPLY

SECTION 3.A.1 STARTING TO SEND COMMAND TO ALL LIGHTS BY DEVICE TYPE CRTITERIA

SET STATUS BY DEVICE ID: STARTING TO SEND COMMAND ALL LIGHT DEVICES TO SET INTENSITY TO HIGH BY DEVICE TYPE AS LIGHT

STATUS Device:light\_1 , Type:LIGHT , Room:Kitchen ,SwitchState:ON Device Intensity:HIGH CMD:SET\_STATUS CALL\_REASON:DEVICE\_TYPE

STATUS Device:light\_3 , Type:LIGHT , Room:Garage ,SwitchState:ON Device Intensity:HIGH CMD:SET\_STATUS CALL\_REASON:DEVICE\_TYPE

STATUS Device:light\_5 , Type:LIGHT , Room:Living Room ,SwitchState:ON Device Intensity:HIGH CMD:SET\_STATUS CALL\_REASON:DEVICE\_TYPE

STATUS Device:light\_4 , Type:LIGHT , Room:Bed Room2 ,SwitchState:ON Device Intensity:HIGH CMD:SET\_STATUS CALL\_REASON:DEVICE\_TYPE

STATUS Device:light\_2 , Type:LIGHT , Room:Bed Room1 ,SwitchState:ON Device Intensity:HIGH CMD:SET\_STATUS CALL\_REASON:DEVICE\_TYPE

SECTION 3.A.2 WRONG COMMAND CHECK SET STATUS FOR DEVICE ID:LIGHT\_1 WRONG MESSAGE DETECTION

<<<<<<<-------------EDGE TO DEVICE Device:light\_1 , Type:LIGHT , Room:Kitchen CMD:SET\_STATUS CALL\_REASON:DEVICE\_ID

---------->>>>>>>>>> DEVICE TO EDGE ERROR Device:light\_1 , Type:LIGHT , Room:Kitchen CMD:SET\_STATUS REPLY

STATUS ERROR WRONG COMMAND TO LIGHT Device:light\_1 , Type:LIGHT , Room:Kitchen ,SwitchState:ON Device Intensity:HIGH CMD:SET\_STATUS CALL\_REASON:DEVICE\_ID REPLY

SECTION 3.B.1 STARTING TO SEND COMMAND TO ALL AC DEVICES TO SET TEMPERATURE:29 BY DEVICE TYPE CRITERIA

SET STATUS BY DEVICE TYPE:STARTING TO SET ALL AC DEVICES TEMP TO 29 BY DEVICE TYPE AS AC

STATUS Device:ac\_1 , Type:AC , Room:Bed Room1 ,SwitchState:ON Device Temprature:29 CMD:SET\_STATUS CALL\_REASON:DEVICE\_TYPE

STATUS Device:ac\_2 , Type:AC , Room:Living Room ,SwitchState:ON Device Temprature:29 CMD:SET\_STATUS CALL\_REASON:DEVICE\_TYPE

STATUS Device:ac\_3 , Type:AC , Room:Living Room ,SwitchState:ON Device Temprature:29 CMD:SET\_STATUS CALL\_REASON:DEVICE\_TYPE

SECTION 3.B.2 WRONG COMMAND CHECK SET STATUS FOR DEVICE ID:AC\_3 WRONG MESSAGE DETECTION

<<<<<<<-------------EDGE TO DEVICE Device:ac\_3 , Type:AC , Room:Living Room CMD:SET\_STATUS CALL\_REASON:DEVICE\_ID

---------->>>>>>>>>> DEVICE TO EDGE ERROR Device:ac\_3 , Type:AC , Room:Living Room CMD:SET\_STATUS REPLY

STATUS ERROR WRONG COMMAND TO AC Device:ac\_3 , Type:AC , Room:Living Room ,SwitchState:ON Device Intensity:29 CMD:SET\_STATUS CALL\_REASON:DEVICE\_ID REPLY

PROJECT CONCLUSION ALL DEVICES STATUS IN HOME

SEND COMMAND TO GET ALL DEVICES IN HOME

STATUS Device:light\_1 , Type:LIGHT , Room:Kitchen ,SwitchState:ON Device Intensity:HIGH CMD:GET\_STATUS CALL\_REASON:HOME

STATUS Device:light\_5 , Type:LIGHT , Room:Living Room ,SwitchState:ON Device Intensity:HIGH CMD:GET\_STATUS CALL\_REASON:HOME

STATUS Device:light\_3 , Type:LIGHT , Room:Garage ,SwitchState:ON Device Intensity:HIGH CMD:GET\_STATUS CALL\_REASON:HOME

STATUS Device:light\_4 , Type:LIGHT , Room:Bed Room2 ,SwitchState:ON Device Intensity:HIGH CMD:GET\_STATUS CALL\_REASON:HOME

STATUS Device:ac\_1 , Type:AC , Room:Bed Room1 ,SwitchState:ON Device Temprature:29 CMD:GET\_STATUS CALL\_REASON:HOME

STATUS Device:ac\_3 , Type:AC , Room:Living Room ,SwitchState:ON Device Temprature:29 CMD:GET\_STATUS CALL\_REASON:HOME

STATUS Device:ac\_2 , Type:AC , Room:Living Room ,SwitchState:ON Device Temprature:29 CMD:GET\_STATUS CALL\_REASON:HOME

STATUS Device:light\_2 , Type:LIGHT , Room:Bed Room1 ,SwitchState:ON Device Intensity:HIGH CMD:GET\_STATUS CALL\_REASON:HOME