```
Executing Script file: '/Users/jerclark/Dropbox/Harvard Extension/
CSCIE-97/Assignments/out/production/CSCIE-97/cscie97/asn3/housemate/
test/housemate.txt'
CONSOLE: CONTROLLER MAIN TESTS

CONSOLE: **********************
CONSOLE: **********************
CONSOLE: MODEL SETUP
CONSOLE: **********************
CONSOLE: **********************

CONSOLE: CREATE HOUSE AND LIVING ROOM

CONSOLE: CREATE OCCUPANT

CONSOLE: CONFIGURE THERMOSTAT

CONSOLE: CONFIGURE LIVING ROOM AVA

CONSOLE: CONFIGURE LIVING ROOM CAMERA

CONSOLE: CONFIGURE SMOKE DETECTOR

CONSOLE: CONFIGURE EMERGENCY PHONE

CONSOLE: CONFIGURE SMART DOOR

CONSOLE: CONFIGURE LIVING ROOM LIGHTS
CONSOLE: INIT LIGHTS TO OFF
CONSOLE: INIT LIGHTS TO 400 LUMENS (WILL HAVE NO EFFECT SINCE LIGHTS
ARE OFF)

CONSOLE: CONFIGURE LIVING ROOM WINDOWS
CONSOLE: INIT WINDOW_POSITION TO CLOSED




CONSOLE: **********************
CONSOLE: **********************
CONSOLE: RULES AND COMMANDS
CONSOLE: **********************
CONSOLE: **********************

CONSOLE: CREATE CONTEXTS
Created context: House1Context
Created context: AllContext
```

```
CONSOLE: ===================
CONSOLE: DIRECT COMMAND OPEN DOOR
CONSOLE: ===================

CONSOLE: CREATE RULE TO OPEN LR DOOR
Created command: OpenLivingRoomDoor
Created predicate: AvaVoiceCommandIsDoorOpen
Created rule: LivingRoomOpenDoorRule
Added context: 'House1Context' to rule: 'LivingRoomOpenDoorRule'
Added predicate: 'AvaVoiceCommandIsDoorOpen' to rule:
'LivingRoomOpenDoorRule'
Added command: 'OpenLivingRoomDoor' to rule: 'LivingRoomOpenDoorRule'

Rule 'LivingRoomOpenDoorRule' subscribed to feature:
'House1:LivingRoom:Ava:Measure:voice_command

CONSOLE: DETECT VOICE COMMAND OPEN_DOOR
CONTROLLER: Rule 'LivingRoomOpenDoorRule' received update notification
from House1:LivingRoom:Ava:Measure:voice_command
CONTROLLER: Predicate 'var r =
(context['House1:LivingRoom:Ava:Measure:voice_command'].is_detecting
== 'Open_Door'); r;' is true
CONTROLLER: Rule 'LivingRoomOpenDoorRule' all predicates pass.
Executing commands.
CONTROLLER: Rule 'LivingRoomOpenDoorRule' executing command var r =
{'targetDeviceScope':'House1:LivingRoom:Door',
'targetDeviceStateFqn':'Setting:door_state', 'targetValue':'OPEN'};r;
House1:LivingRoom:Ava is_in_room House1:LivingRoom
House1:LivingRoom:Ava is_of_type Ava
House1:LivingRoom:Ava:Measure:voice_command is_detecting Open_Door
House1:LivingRoom:Ava:Setting:text_to_speech is_set_to
INITIAL_VALUE_UNDEFINED

CONSOLE: CHECK RESULTS
House1:LivingRoom:Door:Setting:door_state is_set_to OPEN


CONSOLE: ===================
CONSOLE: DIRECT COMMAND CLOSE DOOR
CONSOLE: ===================

CONSOLE: CREATE RULE TO CLOSE LR DOOR
Created command: CloseLivingRoomDoor
Created predicate: AvaVoiceCommandDoorClose
Created rule: LivingRoomCloseDoorRule
Added context: 'House1Context' to rule: 'LivingRoomCloseDoorRule'
Added predicate: 'AvaVoiceCommandDoorClose' to rule:
'LivingRoomCloseDoorRule'
Added command: 'CloseLivingRoomDoor' to rule:
'LivingRoomCloseDoorRule'
```

```
Rule 'LivingRoomCloseDoorRule' subscribed to feature:
'House1:LivingRoom:Ava:Measure:voice_command

CONSOLE: DETECT VOICE COMMAND CLOSE_DOOR
CONTROLLER: Rule 'LivingRoomCloseDoorRule' received update
notification from House1:LivingRoom:Ava:Measure:voice_command
CONTROLLER: Predicate 'var r =
(context['House1:LivingRoom:Ava:Measure:voice_command'].is_detecting
== 'Close_Door'); r;' is true
CONTROLLER: Rule 'LivingRoomCloseDoorRule' all predicates pass.
Executing commands.
CONTROLLER: Rule 'LivingRoomCloseDoorRule' executing command var r =
{'targetDeviceScope':'House1:LivingRoom:Door',
'targetDeviceStateFqn':'Setting:door_state',
'targetValue':'CLOSED'};r;
CONTROLLER: Rule 'LivingRoomOpenDoorRule' received update notification
from House1:LivingRoom:Ava:Measure:voice_command
CONTROLLER: Predicate 'var r =
(context['House1:LivingRoom:Ava:Measure:voice_command'].is_detecting
== 'Open_Door'); r;' is false
House1:LivingRoom:Ava is_in_room House1:LivingRoom
House1:LivingRoom:Ava is_of_type Ava
House1:LivingRoom:Ava:Measure:voice_command is_detecting Close_Door
House1:LivingRoom:Ava:Setting:text_to_speech is_set_to
INITIAL_VALUE_UNDEFINED

CONSOLE: CHECK RESULTS
House1:LivingRoom:Door:Setting:door_state is_set_to CLOSED




CONSOLE: ===================
CONSOLE: DIRECT COMMAND LIGHTS ON
CONSOLE: ===================

CONSOLE: CREATE RULE TO TURN ALL LR LIGHTS ON
Created command: TurnAllLivingRoomLightsOn
Created predicate: AvaVoiceCommandLightsOn
Created rule: LivingRoomLightsOn
Added context: 'House1Context' to rule: 'LivingRoomLightsOn'
Added predicate: 'AvaVoiceCommandLightsOn' to rule:
'LivingRoomLightsOn'
Added command: 'TurnAllLivingRoomLightsOn' to rule:
'LivingRoomLightsOn'

Rule 'LivingRoomLightsOn' subscribed to feature:
'House1:LivingRoom:Ava:Measure:voice_command

CONSOLE: DETECT VOICE COMMAND LIGHTS_ON
```

```
CONTROLLER: Rule 'LivingRoomLightsOn' received update notification
from House1:LivingRoom:Ava:Measure:voice_command
CONTROLLER: Predicate 'var r =
(context['House1:LivingRoom:Ava:Measure:voice_command'].is_detecting
== 'Lights_On'); r;' is true
CONTROLLER: Rule 'LivingRoomLightsOn' all predicates pass. Executing
commands.
CONTROLLER: Rule 'LivingRoomLightsOn' executing command var r =
{'targetDeviceScope':'House1:LivingRoom:',
'targetDeviceStateFqn':'Setting:Light_Power', 'targetValue':'ON'};r;
CONTROLLER: Rule 'LivingRoomCloseDoorRule' received update
notification from House1:LivingRoom:Ava:Measure:voice_command
CONTROLLER: Predicate 'var r =
(context['House1:LivingRoom:Ava:Measure:voice_command'].is_detecting
== 'Close_Door'); r;' is false
CONTROLLER: Rule 'LivingRoomOpenDoorRule' received update notification
from House1:LivingRoom:Ava:Measure:voice_command
CONTROLLER: Predicate 'var r =
(context['House1:LivingRoom:Ava:Measure:voice_command'].is_detecting
== 'Open_Door'); r;' is false
House1:LivingRoom:Ava is_in_room House1:LivingRoom
House1:LivingRoom:Ava is_of_type Ava
House1:LivingRoom:Ava:Measure:voice_command is_detecting Lights_On
House1:LivingRoom:Ava:Setting:text_to_speech is_set_to
INITIAL_VALUE_UNDEFINED

CONSOLE: CHECK RESULTS
House1:LivingRoom:MainLights:Setting:Light_Power is_set_to ON
House1:LivingRoom:Sconces:Setting:Light_Power is_set_to ON




CONSOLE: ===================
CONSOLE: DIRECT COMMAND LIGHTS OFF
CONSOLE: ===================

CONSOLE: CREATE RULE TO TURN ALL LR LIGHTS OFF
Created command: TurnAllLivingRoomLightsOff
Created predicate: AvaVoiceCommandLightsOff
Created rule: LivingRoomLightsOff
Added context: 'House1Context' to rule: 'LivingRoomLightsOff'
Added predicate: 'AvaVoiceCommandLightsOff' to rule:
'LivingRoomLightsOff'
Added command: 'TurnAllLivingRoomLightsOff' to rule:
'LivingRoomLightsOff'

Rule 'LivingRoomLightsOff' subscribed to feature:
'House1:LivingRoom:Ava:Measure:voice_command

CONSOLE: DETECT VOICE COMMAND LIGHTS_OFF
```

```
CONTROLLER: Rule 'LivingRoomLightsOff' received update notification
from House1:LivingRoom:Ava:Measure:voice_command
CONTROLLER: Predicate 'var r =
(context['House1:LivingRoom:Ava:Measure:voice_command'].is_detecting
== 'Lights_Off'); r;' is true
CONTROLLER: Rule 'LivingRoomLightsOff' all predicates pass. Executing
commands.
CONTROLLER: Rule 'LivingRoomLightsOff' executing command var r =
{'targetDeviceScope':'House1:LivingRoom:',
'targetDeviceStateFqn':'Setting:Light_Power', 'targetValue':'OFF'};r;
CONTROLLER: Rule 'LivingRoomLightsOn' received update notification
from House1:LivingRoom:Ava:Measure:voice_command
CONTROLLER: Predicate 'var r =
(context['House1:LivingRoom:Ava:Measure:voice_command'].is_detecting
== 'Lights_On'); r;' is false
CONTROLLER: Rule 'LivingRoomCloseDoorRule' received update
notification from House1:LivingRoom:Ava:Measure:voice_command
CONTROLLER: Predicate 'var r =
(context['House1:LivingRoom:Ava:Measure:voice_command'].is_detecting
== 'Close_Door'); r;' is false
CONTROLLER: Rule 'LivingRoomOpenDoorRule' received update notification
from House1:LivingRoom:Ava:Measure:voice_command
CONTROLLER: Predicate 'var r =
(context['House1:LivingRoom:Ava:Measure:voice_command'].is_detecting
== 'Open_Door'); r;' is false
House1:LivingRoom:Ava is_in_room House1:LivingRoom
House1:LivingRoom:Ava is_of_type Ava
House1:LivingRoom:Ava:Measure:voice_command is_detecting Lights_Off
House1:LivingRoom:Ava:Setting:text_to_speech is_set_to
INITIAL_VALUE_UNDEFINED

CONSOLE: CHECK RESULTS
House1:LivingRoom:MainLights:Setting:Light_Power is_set_to OFF
House1:LivingRoom:Sconces:Setting:Light_Power is_set_to OFF




CONSOLE: ===================
CONSOLE: GENERIC VOICE COMMAND OCCUPANT
CONSOLE: ===================

CONSOLE: CREATE RULE TO INTERPRET GENERIC AVA ROOM—WIDE VOICE COMMAND
Created command: PerformGenericVoiceCommand
Created predicate: IsAvaGenericVoiceCommand
Created rule: GenericVoiceCommand
Added context: 'House1Context' to rule: 'GenericVoiceCommand'
Added predicate: 'IsAvaGenericVoiceCommand' to rule:
'GenericVoiceCommand'
Added command: 'PerformGenericVoiceCommand' to rule:
'GenericVoiceCommand'
```

Rule 'GenericVoiceCommand' subscribed to feature:
'House1:LivingRoom:Ava:Measure:voice_command

CONSOLE: DETECT GENERIC VOICE COMMAND LIGHTS_ON
CONTROLLER: Rule 'GenericVoiceCommand' received update notification
from House1:LivingRoom:Ava:Measure:voice_command
CONTROLLER: Predicate 'var r =
context[context['notifyingObject'].fqn].is_detecting.indexOf("_to_")!
==-1; r;' is true
CONTROLLER: Rule 'GenericVoiceCommand' all predicates pass. Executing
commands.
CONTROLLER: Rule 'GenericVoiceCommand' executing command var
notifyingObjectFqn = context['notifyingObject'].fqn;var r =
{'targetDeviceScope':notifyingObjectFqn.split(":", 2).join(":", 2),
'targetDeviceStateFqn':'Setting:'+context[notifyingObjectFqn].is_detec
ting.split("_to_")[0],
'targetValue':context[notifyingObjectFqn].is_detecting.split("_to_")
[1]};r;
CONTROLLER: Rule 'LivingRoomLightsOff' received update notification
from House1:LivingRoom:Ava:Measure:voice_command
CONTROLLER: Predicate 'var r =
(context['House1:LivingRoom:Ava:Measure:voice_command'].is_detecting
== 'Lights_Off'); r;' is false
CONTROLLER: Rule 'LivingRoomLightsOn' received update notification
from House1:LivingRoom:Ava:Measure:voice_command
CONTROLLER: Predicate 'var r =
(context['House1:LivingRoom:Ava:Measure:voice_command'].is_detecting
== 'Lights_On'); r;' is false
CONTROLLER: Rule 'LivingRoomCloseDoorRule' received update
notification from House1:LivingRoom:Ava:Measure:voice_command
CONTROLLER: Predicate 'var r =
(context['House1:LivingRoom:Ava:Measure:voice_command'].is_detecting
== 'Close_Door'); r;' is false
CONTROLLER: Rule 'LivingRoomOpenDoorRule' received update notification
from House1:LivingRoom:Ava:Measure:voice_command
CONTROLLER: Predicate 'var r =
(context['House1:LivingRoom:Ava:Measure:voice_command'].is_detecting
== 'Open_Door'); r;' is false
House1:LivingRoom:Ava is_in_room House1:LivingRoom
House1:LivingRoom:Ava is_of_type Ava
House1:LivingRoom:Ava:Measure:voice_command is_detecting
Light_Power_to_ON
House1:LivingRoom:Ava:Setting:text_to_speech is_set_to
INITIAL_VALUE_UNDEFINED

CONSOLE: CHECK RESULTS
House1:LivingRoom:MainLights:Setting:Light_Power is_set_to ON
House1:LivingRoom:Sconces:Setting:Light_Power is_set_to ON

```
CONSOLE: ===================
CONSOLE: FIND OCCUPANT
CONSOLE: ===================

CONSOLE: CREATE RULE TO LOCATE OCCUPANT
Created command: LocateOccupantResponse
Created predicate: IsAvaLocateOccupantRequest
Created rule: LocateOccupant
Added context: 'AllContext' to rule: 'LocateOccupant'
Added predicate: 'IsAvaLocateOccupantRequest' to rule:
'LocateOccupant'
Added command: 'LocateOccupantResponse' to rule: 'LocateOccupant'

Rule 'LocateOccupant' subscribed to feature:
'House1:LivingRoom:Ava:Measure:voice_command

CONSOLE: DETECT OCCUPANT LOCATION
CONTROLLER: Rule 'LocateOccupant' received update notification from
House1:LivingRoom:Ava:Measure:voice_command
CONTROLLER: Predicate 'var r =
context[context['notifyingObject'].fqn].is_detecting.indexOf("Where_is
_")==0; r;' is true
CONTROLLER: Rule 'LocateOccupant' all predicates pass. Executing
commands.
CONTROLLER: Rule 'LocateOccupant' executing command var targetDevice =
context['notifyingObject'].fqn.split(':',3).join(':',3);var
targetOccupant=context[context['notifyingObject'].fqn].is_detecting.sp
lit('Where_is_')[1];var targetOccupantFqn='Occupant:' +
targetOccupant;var occupantLocation =
context['Occupant:'+targetOccupant].is_in_room;var r =
{'targetDeviceScope':targetDevice,
'targetDeviceStateFqn':'Setting:text_to_speech',
'targetValue':targetOccupant + '_is_in_room_' + occupantLocation};r;
CONTROLLER: Rule 'GenericVoiceCommand' received update notification
from House1:LivingRoom:Ava:Measure:voice_command
CONTROLLER: Predicate 'var r =
context[context['notifyingObject'].fqn].is_detecting.indexOf("_to_")!
==-1; r;' is false
CONTROLLER: Rule 'LivingRoomLightsOff' received update notification
from House1:LivingRoom:Ava:Measure:voice_command
CONTROLLER: Predicate 'var r =
(context['House1:LivingRoom:Ava:Measure:voice_command'].is_detecting
== 'Lights_Off'); r;' is false
CONTROLLER: Rule 'LivingRoomLightsOn' received update notification
from House1:LivingRoom:Ava:Measure:voice_command
CONTROLLER: Predicate 'var r =
(context['House1:LivingRoom:Ava:Measure:voice_command'].is_detecting
== 'Lights_On'); r;' is false
```

CONTROLLER: Rule 'LivingRoomCloseDoorRule' received update notification from House1:LivingRoom:Ava:Measure:voice_command
CONTROLLER: Predicate 'var r = (context['House1:LivingRoom:Ava:Measure:voice_command'].is_detecting == 'Close_Door'); r;' is false
CONTROLLER: Rule 'LivingRoomOpenDoorRule' received update notification from House1:LivingRoom:Ava:Measure:voice_command
CONTROLLER: Predicate 'var r = (context['House1:LivingRoom:Ava:Measure:voice_command'].is_detecting == 'Open_Door'); r;' is false
House1:LivingRoom:Ava is_in_room House1:LivingRoom
House1:LivingRoom:Ava is_of_type Ava
House1:LivingRoom:Ava:Measure:voice_command is_detecting Where_is_JeremyClark
House1:LivingRoom:Ava:Setting:text_to_speech is_set_to JeremyClark_is_in_room_null

CONSOLE: CHECK RESULTS
House1:LivingRoom:Ava:Setting:text_to_speech is_set_to JeremyClark_is_in_room_null

CONSOLE: ===================
CONSOLE: ARRIVING OCCUPANT
CONSOLE: ===================

CONSOLE: CREATE RULE FOR OCCUPANT ARRIVING IN ROOM
Created command: AddOccupantToRoom
Created rule: OccupantEnteringRoom
Added context: 'AllContext' to rule: 'OccupantEnteringRoom'
Added command: 'AddOccupantToRoom' to rule: 'OccupantEnteringRoom'

Rule 'OccupantEnteringRoom' subscribed to feature: 'House1:LivingRoom:Camera:Measure:occupant_arriving

CONSOLE: CREATE RULE FOR NON-EMPTY OCCUPANCY
Created command: SetThermostatTo70
Created predicate: IsRoomOccupied
Created rule: RoomIsOccupied
Added predicate: 'IsRoomOccupied' to rule: 'RoomIsOccupied'
Added context: 'AllContext' to rule: 'RoomIsOccupied'
Added command: 'SetThermostatTo70' to rule: 'RoomIsOccupied'
Added command: 'TurnAllLivingRoomLightsOn' to rule: 'RoomIsOccupied'

Rule 'RoomIsOccupied' subscribed to feature: 'House1:LivingRoom:Camera:Measure:occupant_count

CONSOLE: CONFIRM JEREMYCLARK NOT IN LIVING ROOM
Occupant:JeremyClark has_name JeremyClark

Occupant:JeremyClark is_type Adult
Occupant:JeremyClark is_active true
Occupant:JeremyClark has_id JeremyClark
Occupant:JeremyClark is_member_of House1

CONSOLE: DETECT OCCUPANT ARRIVING
CONTROLLER: Rule 'OccupantEnteringRoom' received update notification
from House1:LivingRoom:Camera:Measure:occupant_arriving
CONTROLLER: Rule 'OccupantEnteringRoom' all predicates pass. Executing
commands.
CONTROLLER: Rule 'OccupantEnteringRoom' executing command var
targetRoom = context['notifyingObject'].fqn.split(':',2).join(':',
2);var
arrivingOccupant=context[context['notifyingObject'].fqn].is_detecting;
var r = {'occupantId':arrivingOccupant, 'roomFqn':targetRoom};r;
House1:LivingRoom:Camera is_in_room House1:LivingRoom
House1:LivingRoom:Camera is_of_type Camera
House1:LivingRoom:Camera:Measure:occupant_leaving is_detecting
INITIAL_VALUE_UNDEFINED
House1:LivingRoom:Camera:Measure:occupant_inactive is_detecting
INITIAL_VALUE_UNDEFINED
House1:LivingRoom:Camera:Measure:occupant_arriving is_detecting
JeremyClark
House1:LivingRoom:Camera:Measure:occupant_active is_detecting
INITIAL_VALUE_UNDEFINED
House1:LivingRoom:Camera:Measure:occupant_count is_detecting 1

CONSOLE: CONFIRM JEREMYCLARK IS IN LIVING ROOM
Occupant:JeremyClark is_in_room House1:LivingRoom
Occupant:JeremyClark is_active true
Occupant:JeremyClark has_id JeremyClark
Occupant:JeremyClark has_name JeremyClark
Occupant:JeremyClark is_member_of House1
Occupant:JeremyClark is_type Adult

CONSOLE: PROCESS NON_EMPTY ROOM
CONSOLE: CHECK CONFIRM THERMOSTAT SET TO 60 AND LIGHTS OFF
CONTROLLER: Rule 'LocateOccupant' received update notification from
House1:LivingRoom:Ava:Measure:voice_command
CONTROLLER: Predicate 'var r =
context[context['notifyingObject'].fqn].is_detecting.indexOf("Where_is
_")==0; r;' is false
CONTROLLER: Rule 'GenericVoiceCommand' received update notification
from House1:LivingRoom:Ava:Measure:voice_command
CONTROLLER: Predicate 'var r =
context[context['notifyingObject'].fqn].is_detecting.indexOf("_to_")!
==-1; r;' is true
CONTROLLER: Rule 'GenericVoiceCommand' all predicates pass. Executing
commands.
CONTROLLER: Rule 'GenericVoiceCommand' executing command var

```
notifyingObjectFqn = context['notifyingObject'].fqn;var r =
{'targetDeviceScope':notifyingObjectFqn.split(":", 2).join(":", 2),
'targetDeviceStateFqn':'Setting:'+context[notifyingObjectFqn].is_detec
ting.split("_to_")[0],
'targetValue':context[notifyingObjectFqn].is_detecting.split("_to_")
[1]};r;
CONTROLLER: Rule 'LivingRoomLightsOff' received update notification
from House1:LivingRoom:Ava:Measure:voice_command
CONTROLLER: Predicate 'var r =
(context['House1:LivingRoom:Ava:Measure:voice_command'].is_detecting
== 'Lights_Off'); r;' is false
CONTROLLER: Rule 'LivingRoomLightsOn' received update notification
from House1:LivingRoom:Ava:Measure:voice_command
CONTROLLER: Predicate 'var r =
(context['House1:LivingRoom:Ava:Measure:voice_command'].is_detecting
== 'Lights_On'); r;' is false
CONTROLLER: Rule 'LivingRoomCloseDoorRule' received update
notification from House1:LivingRoom:Ava:Measure:voice_command
CONTROLLER: Predicate 'var r =
(context['House1:LivingRoom:Ava:Measure:voice_command'].is_detecting
== 'Close_Door'); r;' is false
CONTROLLER: Rule 'LivingRoomOpenDoorRule' received update notification
from House1:LivingRoom:Ava:Measure:voice_command
CONTROLLER: Predicate 'var r =
(context['House1:LivingRoom:Ava:Measure:voice_command'].is_detecting
== 'Open_Door'); r;' is false
House1:LivingRoom:Ava is_in_room House1:LivingRoom
House1:LivingRoom:Ava is_of_type Ava
House1:LivingRoom:Ava:Measure:voice_command is_detecting
Light_Power_to_OFF
House1:LivingRoom:Ava:Setting:text_to_speech is_set_to
JeremyClark_is_in_room_null
House1:LivingRoom:Thermostat:Setting:target_temp is_set_to 60
House1:LivingRoom:MainLights:Setting:Light_Power is_set_to OFF
House1:LivingRoom:Sconces:Setting:Light_Power is_set_to OFF

CONSOLE: DETECT CHANGE IN OCCUPANT_COUNT TO 1
CONTROLLER: Rule 'RoomIsOccupied' received update notification from
House1:LivingRoom:Camera:Measure:occupant_count
CONTROLLER: Predicate
'(context[context['notifyingObject'].fqn].is_detecting !== 0);' is
true
CONTROLLER: Rule 'RoomIsOccupied' all predicates pass. Executing
commands.
CONTROLLER: Rule 'RoomIsOccupied' executing command var r =
{'targetDeviceScope':'House1:LivingRoom:',
'targetDeviceStateFqn':'Setting:Light_Power', 'targetValue':'ON'};r;
CONTROLLER: Rule 'RoomIsOccupied' executing command var
targetThermostat = context['notifyingObject'].fqn.split(':',
2).join(':',2) + ":Thermostat";var r =
```

{'targetDeviceScope':targetThermostat,
'targetDeviceStateFqn':'Setting:target_temp', 'targetValue':70.0};r;
House1:LivingRoom:Camera is_in_room House1:LivingRoom
House1:LivingRoom:Camera is_of_type Camera
House1:LivingRoom:Camera:Measure:occupant_leaving is_detecting
INITIAL_VALUE_UNDEFINED
House1:LivingRoom:Camera:Measure:occupant_inactive is_detecting
INITIAL_VALUE_UNDEFINED
House1:LivingRoom:Camera:Measure:occupant_arriving is_detecting
JeremyClark
House1:LivingRoom:Camera:Measure:occupant_active is_detecting
INITIAL_VALUE_UNDEFINED
House1:LivingRoom:Camera:Measure:occupant_count is_detecting 1

CONSOLE: CHECK CONFIRM THERMOSTAT SET TO 70 AND LIGHTS ON
House1:LivingRoom:Thermostat:Setting:target_temp is_set_to 70.0
House1:LivingRoom:MainLights:Setting:Light_Power is_set_to ON
House1:LivingRoom:Sconces:Setting:Light_Power is_set_to ON

CONSOLE: ===================
CONSOLE: PROCESS LEAVING OCCUPANT
CONSOLE: ===================

CONSOLE: CREATE RULE FOR OCCUPANT LEAVING ROOM
Created command: MoveOccupantOutOfRoom
Created rule: OccupantLeavingRoom
Added context: 'AllContext' to rule: 'OccupantLeavingRoom'
Added command: 'MoveOccupantOutOfRoom' to rule: 'OccupantLeavingRoom'

Rule 'OccupantLeavingRoom' subscribed to feature:
'House1:LivingRoom:Camera:Measure:occupant_leaving

CONSOLE: CREATE RULE FOR EMPTY OCCUPANCY
Created command: DecreaseThermostatTo60
Created predicate: IsRoomEmpty
Created rule: RoomIsUnoccupied
Added predicate: 'IsRoomEmpty' to rule: 'RoomIsUnoccupied'
Added context: 'AllContext' to rule: 'RoomIsUnoccupied'
Added command: 'DecreaseThermostatTo60' to rule: 'RoomIsUnoccupied'
Added command: 'TurnAllLivingRoomLightsOff' to rule:
'RoomIsUnoccupied'

Rule 'RoomIsUnoccupied' subscribed to feature:
'House1:LivingRoom:Camera:Measure:occupant_count

CONSOLE: CONFIRM JEREMYCLARK IN LIVING ROOM
Occupant:JeremyClark is_in_room House1:LivingRoom
Occupant:JeremyClark is_active true

```
Occupant:JeremyClark has_id JeremyClark
Occupant:JeremyClark has_name JeremyClark
Occupant:JeremyClark is_member_of House1
Occupant:JeremyClark is_type Adult

CONSOLE: DETECT OCCUPANT LEAVING
CONTROLLER: Rule 'OccupantLeavingRoom' received update notification
from House1:LivingRoom:Camera:Measure:occupant_leaving
CONTROLLER: Rule 'OccupantLeavingRoom' all predicates pass. Executing
commands.
CONTROLLER: Rule 'OccupantLeavingRoom' executing command var
departingOccupant=context[context['notifyingObject'].fqn].is_detecting
;var r = {'occupantId':departingOccupant, 'roomFqn':'null'};r;
House1:LivingRoom:Camera is_in_room House1:LivingRoom
House1:LivingRoom:Camera is_of_type Camera
House1:LivingRoom:Camera:Measure:occupant_leaving is_detecting
JeremyClark
House1:LivingRoom:Camera:Measure:occupant_inactive is_detecting
INITIAL_VALUE_UNDEFINED
House1:LivingRoom:Camera:Measure:occupant_arriving is_detecting
JeremyClark
House1:LivingRoom:Camera:Measure:occupant_active is_detecting
INITIAL_VALUE_UNDEFINED
House1:LivingRoom:Camera:Measure:occupant_count is_detecting 1

CONSOLE: CONFIRM JEREMYCLARK NO LONGER IN LIVING ROOM
Occupant:JeremyClark is_active true
Occupant:JeremyClark is_type Adult
Occupant:JeremyClark has_id JeremyClark
Occupant:JeremyClark has_name JeremyClark
Occupant:JeremyClark is_member_of House1

CONSOLE: PROCESS EMPTY ROOM
CONSOLE: CHECK CONFIRM THERMOSTAT SET TO 70 AND LIGHTS ON
House1:LivingRoom:Thermostat:Setting:target_temp is_set_to 70.0
House1:LivingRoom:MainLights:Setting:Light_Power is_set_to ON
House1:LivingRoom:Sconces:Setting:Light_Power is_set_to ON

CONSOLE: DETECT EMPTY ROOM
CONTROLLER: Rule 'RoomIsUnoccupied' received update notification from
House1:LivingRoom:Camera:Measure:occupant_count
CONTROLLER: Predicate
'(context[context['notifyingObject'].fqn].is_detecting == 0);' is true
CONTROLLER: Rule 'RoomIsUnoccupied' all predicates pass. Executing
commands.
CONTROLLER: Rule 'RoomIsUnoccupied' executing command var r =
{'targetDeviceScope':'House1:LivingRoom:',
'targetDeviceStateFqn':'Setting:Light_Power', 'targetValue':'OFF'};r;
CONTROLLER: Rule 'RoomIsUnoccupied' executing command var
targetThermostat = context['notifyingObject'].fqn.split(':',
```

```
2).join(':',2) + ":Thermostat";var r =
{'targetDeviceScope':targetThermostat,
'targetDeviceStateFqn':'Setting:target_temp', 'targetValue':60.0};r;
CONTROLLER: Rule 'RoomIsOccupied' received update notification from
House1:LivingRoom:Camera:Measure:occupant_count
CONTROLLER: Predicate
'(context[context['notifyingObject'].fqn].is_detecting !== 0);' is
true
CONTROLLER: Rule 'RoomIsOccupied' all predicates pass. Executing
commands.
CONTROLLER: Rule 'RoomIsOccupied' executing command var r =
{'targetDeviceScope':'House1:LivingRoom:',
'targetDeviceStateFqn':'Setting:Light_Power', 'targetValue':'ON'};r;
CONTROLLER: Rule 'RoomIsOccupied' executing command var
targetThermostat = context['notifyingObject'].fqn.split(':',
2).join(':',2) + ":Thermostat";var r =
{'targetDeviceScope':targetThermostat,
'targetDeviceStateFqn':'Setting:target_temp', 'targetValue':70.0};r;
House1:LivingRoom:Camera is_in_room House1:LivingRoom
House1:LivingRoom:Camera is_of_type Camera
House1:LivingRoom:Camera:Measure:occupant_leaving is_detecting
JeremyClark
House1:LivingRoom:Camera:Measure:occupant_inactive is_detecting
INITIAL_VALUE_UNDEFINED
House1:LivingRoom:Camera:Measure:occupant_arriving is_detecting
JeremyClark
House1:LivingRoom:Camera:Measure:occupant_active is_detecting
INITIAL_VALUE_UNDEFINED
House1:LivingRoom:Camera:Measure:occupant_count is_detecting 0

CONSOLE: CHECK CONFIRM THERMOSTAT SET TO 60 AND LIGHTS ON
House1:LivingRoom:Thermostat:Setting:target_temp is_set_to 70.0
House1:LivingRoom:MainLights:Setting:Light_Power is_set_to ON
House1:LivingRoom:Sconces:Setting:Light_Power is_set_to ON




CONSOLE: ===================
CONSOLE: SINGLE OCCUPANT INACTIVE
CONSOLE: ===================

CONSOLE: CREATE OCCUPANT INACTIVE RULE
Created command: SetOccupantInactive
Created rule: OccupantInactive
Added context: 'AllContext' to rule: 'OccupantInactive'
Added command: 'SetOccupantInactive' to rule: 'OccupantInactive'

Rule 'OccupantInactive' subscribed to feature:
'House1:LivingRoom:Camera:Measure:occupant_inactive
```

CONSOLE: CREATE SINGLE OCCUPANT INACTIVE RULE
Created command: SetLumensTo100
Created predicate: IsOccupancyCount1
Created rule: SingleOccupantInactive
Added predicate: 'IsOccupancyCount1' to rule: 'SingleOccupantInactive'
Added context: 'AllContext' to rule: 'SingleOccupantInactive'
Added command: 'SetLumensTo100' to rule: 'SingleOccupantInactive'

Rule 'SingleOccupantInactive' subscribed to feature:
'House1:LivingRoom:Camera:Measure:occupant_inactive

CONSOLE: MOVE JEREMYCLARK BACK INTO LIVING ROOM
CONTROLLER: Rule 'RoomIsUnoccupied' received update notification from
House1:LivingRoom:Camera:Measure:occupant_count
CONTROLLER: Predicate
'(context[context['notifyingObject'].fqn].is_detecting == 0);' is
false
CONTROLLER: Rule 'RoomIsOccupied' received update notification from
House1:LivingRoom:Camera:Measure:occupant_count
CONTROLLER: Predicate
'(context[context['notifyingObject'].fqn].is_detecting !== 0);' is
true
CONTROLLER: Rule 'RoomIsOccupied' all predicates pass. Executing
commands.
CONTROLLER: Rule 'RoomIsOccupied' executing command var r =
{'targetDeviceScope':'House1:LivingRoom:',
'targetDeviceStateFqn':'Setting:Light_Power', 'targetValue':'ON'};r;
CONTROLLER: Rule 'RoomIsOccupied' executing command var
targetThermostat = context['notifyingObject'].fqn.split(':',
2).join(':',2) + ":Thermostat";var r =
{'targetDeviceScope':targetThermostat,
'targetDeviceStateFqn':'Setting:target_temp', 'targetValue':70.0};r;
House1:LivingRoom:Camera is_in_room House1:LivingRoom
House1:LivingRoom:Camera is_of_type Camera
House1:LivingRoom:Camera:Measure:occupant_leaving is_detecting
JeremyClark
House1:LivingRoom:Camera:Measure:occupant_inactive is_detecting
INITIAL_VALUE_UNDEFINED
House1:LivingRoom:Camera:Measure:occupant_arriving is_detecting
JeremyClark
House1:LivingRoom:Camera:Measure:occupant_active is_detecting
INITIAL_VALUE_UNDEFINED
House1:LivingRoom:Camera:Measure:occupant_count is_detecting 1
CONTROLLER: Rule 'OccupantEnteringRoom' received update notification
from House1:LivingRoom:Camera:Measure:occupant_arriving
CONTROLLER: Rule 'OccupantEnteringRoom' all predicates pass. Executing
commands.
CONTROLLER: Rule 'OccupantEnteringRoom' executing command var
targetRoom = context['notifyingObject'].fqn.split(':',2).join(':',

```
2);var
arrivingOccupant=context[context['notifyingObject'].fqn].is_detecting;
var r = {'occupantId':arrivingOccupant, 'roomFqn':targetRoom};r;
House1:LivingRoom:Camera is_in_room House1:LivingRoom
House1:LivingRoom:Camera is_of_type Camera
House1:LivingRoom:Camera:Measure:occupant_leaving is_detecting
JeremyClark
House1:LivingRoom:Camera:Measure:occupant_inactive is_detecting
INITIAL_VALUE_UNDEFINED
House1:LivingRoom:Camera:Measure:occupant_arriving is_detecting
JeremyClark
House1:LivingRoom:Camera:Measure:occupant_active is_detecting
INITIAL_VALUE_UNDEFINED
House1:LivingRoom:Camera:Measure:occupant_count is_detecting 1

CONSOLE: CHECK CONFIRM THAT LUMENS ARE SET TO 400
House1:LivingRoom:MainLights:Setting:Lumens is_set_to 400
House1:LivingRoom:Sconces:Setting:Lumens is_set_to 400

CONSOLE: CONFIRM JEREMYCLARK IS ACTIVE
Occupant:JeremyClark is_active true
Occupant:JeremyClark is_type Adult
Occupant:JeremyClark is_in_room House1:LivingRoom
Occupant:JeremyClark is_member_of House1
Occupant:JeremyClark has_id JeremyClark
Occupant:JeremyClark has_name JeremyClark

CONSOLE: CHECK CONFIRM THAT ROOM OCCUPANCY IS 1
House1:LivingRoom has_window_count 1
House1:LivingRoom has_device RearWindow
House1:LivingRoom has_device Camera
House1:LivingRoom is_on_floor 1
House1:LivingRoom has_occupant_count 1
House1:LivingRoom has_device MainLights
House1:LivingRoom has_occupant JeremyClark
House1:LivingRoom has_device Door
House1:LivingRoom has_device EmergencyPhone
House1:LivingRoom has_device Thermostat
House1:LivingRoom has_device FrontWindow
House1:LivingRoom has_device Ava
House1:LivingRoom has_device SmokeDetector
House1:LivingRoom has_device SideWindow
House1:LivingRoom has_device Sconces
House1:LivingRoom has_name LivingRoom
House1:LivingRoom:SmokeDetector is_of_type SmokeDetector
House1:LivingRoom:SmokeDetector is_in_room House1:LivingRoom
House1:LivingRoom:SmokeDetector:Measure:smoke_level is_detecting 0
House1:LivingRoom:MainLights is_of_type MainLights
House1:LivingRoom:MainLights is_in_room House1:LivingRoom
House1:LivingRoom:MainLights:Setting:Lumens is_set_to 400
```

House1:LivingRoom:MainLights:Setting:Light_Power is_set_to ON
House1:LivingRoom:FrontWindow is_of_type FrontWindow
House1:LivingRoom:FrontWindow is_in_room House1:LivingRoom
House1:LivingRoom:FrontWindow:Setting:Window_Position is_set_to CLOSED
House1:LivingRoom:SideWindow is_of_type SideWindow
House1:LivingRoom:SideWindow is_in_room House1:LivingRoom
House1:LivingRoom:SideWindow:Setting:Window_Position is_set_to CLOSED
House1:LivingRoom:Thermostat is_of_type Thermostat
House1:LivingRoom:Thermostat is_in_room House1:LivingRoom
House1:LivingRoom:Thermostat:Measure:room_temp is_detecting 60
House1:LivingRoom:Thermostat:Setting:target_temp is_set_to 70.0
House1:LivingRoom:Camera is_in_room House1:LivingRoom
House1:LivingRoom:Camera is_of_type Camera
House1:LivingRoom:Camera:Measure:occupant_leaving is_detecting
JeremyClark
House1:LivingRoom:Camera:Measure:occupant_inactive is_detecting
INITIAL_VALUE_UNDEFINED
House1:LivingRoom:Camera:Measure:occupant_arriving is_detecting
JeremyClark
House1:LivingRoom:Camera:Measure:occupant_active is_detecting
INITIAL_VALUE_UNDEFINED
House1:LivingRoom:Camera:Measure:occupant_count is_detecting 1
House1:LivingRoom:RearWindow is_in_room House1:LivingRoom
House1:LivingRoom:RearWindow is_of_type RearWindow
House1:LivingRoom:RearWindow:Setting:Window_Position is_set_to CLOSED
House1:LivingRoom:Sconces is_of_type Sconces
House1:LivingRoom:Sconces is_in_room House1:LivingRoom
House1:LivingRoom:Sconces:Setting:Lumens is_set_to 400
House1:LivingRoom:Sconces:Setting:Light_Power is_set_to ON
House1:LivingRoom:Ava is_in_room House1:LivingRoom
House1:LivingRoom:Ava is_of_type Ava
House1:LivingRoom:Ava:Measure:voice_command is_detecting
Light_Power_to_OFF
House1:LivingRoom:Ava:Setting:text_to_speech is_set_to
JeremyClark_is_in_room_null
House1:LivingRoom:Door is_in_room House1:LivingRoom
House1:LivingRoom:Door is_of_type Door
House1:LivingRoom:Door:Setting:door_state is_set_to CLOSED
House1:LivingRoom:EmergencyPhone is_of_type EmergencyPhone
House1:LivingRoom:EmergencyPhone is_in_room House1:LivingRoom
House1:LivingRoom:EmergencyPhone:Setting:call_mode is_set_to HANGUP
House1:LivingRoom:EmergencyPhone:Setting:target_number is_set_to 911

CONSOLE: DETECT INACTIVE OCCUPANT
CONTROLLER: Rule 'SingleOccupantInactive' received update notification
from House1:LivingRoom:Camera:Measure:occupant_inactive
House1:LivingRoom
CONTROLLER: Predicate 'var targetRoom =
context['notifyingObject'].fqn.split(':',2).join(':',
2);print(targetRoom);(context[targetRoom].has_occupant_count == 1);'

is true
CONTROLLER: Rule 'SingleOccupantInactive' all predicates pass.
Executing commands.
CONTROLLER: Rule 'SingleOccupantInactive' executing command var
targetRoom = context['notifyingObject'].fqn.split(':',2).join(':',
2);var r = {'targetDeviceScope':targetRoom,
'targetDeviceStateFqn':'Setting:Lumens', 'targetValue':100};r;
CONTROLLER: Rule 'OccupantInactive' received update notification from
House1:LivingRoom:Camera:Measure:occupant_inactive
CONTROLLER: Rule 'OccupantInactive' all predicates pass. Executing
commands.
CONTROLLER: Rule 'OccupantInactive' executing command var
targetOccupant =
context[context['notifyingObject'].fqn].is_detecting;var r =
{'occupantId':targetOccupant, 'activityState':'false'};r;
House1:LivingRoom:Camera is_in_room House1:LivingRoom
House1:LivingRoom:Camera is_of_type Camera
House1:LivingRoom:Camera:Measure:occupant_leaving is_detecting
JeremyClark
House1:LivingRoom:Camera:Measure:occupant_inactive is_detecting
JeremyClark
House1:LivingRoom:Camera:Measure:occupant_arriving is_detecting
JeremyClark
House1:LivingRoom:Camera:Measure:occupant_active is_detecting
INITIAL_VALUE_UNDEFINED
House1:LivingRoom:Camera:Measure:occupant_count is_detecting 1

CONSOLE: CHECK CONFIRM LUMENS SET TO 100 (DIM)
House1:LivingRoom:MainLights:Setting:Lumens is_set_to 100
House1:LivingRoom:Sconces:Setting:Lumens is_set_to 100

CONSOLE: CHECK JEREMYCLARK IS INACTIVE
Occupant:JeremyClark has_id JeremyClark
Occupant:JeremyClark is_active false
Occupant:JeremyClark has_name JeremyClark
Occupant:JeremyClark is_type Adult
Occupant:JeremyClark is_in_room House1:LivingRoom
Occupant:JeremyClark is_member_of House1

CONSOLE: ===================
CONSOLE: SET OCCUPANT ACTIVE
CONSOLE: ===================

CONSOLE: CREATE OCCUPANT ACTIVE RULE
Created command: SetOccupantActive
Created rule: OccupantActive
Added context: 'AllContext' to rule: 'OccupantActive'
Added command: 'SetOccupantActive' to rule: 'OccupantActive'

```
Rule 'OccupantActive' subscribed to feature:
'House1:LivingRoom:Camera:Measure:occupant_active

CONSOLE: DETECT ACTIVE OCCUPANT
CONTROLLER: Rule 'OccupantActive' received update notification from
House1:LivingRoom:Camera:Measure:occupant_active
CONTROLLER: Rule 'OccupantActive' all predicates pass. Executing
commands.
CONTROLLER: Rule 'OccupantActive' executing command var targetOccupant
= context[context['notifyingObject'].fqn].is_detecting;var r =
{'occupantId':targetOccupant, 'activityState':'true'};r;
House1:LivingRoom:Camera is_in_room House1:LivingRoom
House1:LivingRoom:Camera is_of_type Camera
House1:LivingRoom:Camera:Measure:occupant_leaving is_detecting
JeremyClark
House1:LivingRoom:Camera:Measure:occupant_inactive is_detecting
JeremyClark
House1:LivingRoom:Camera:Measure:occupant_arriving is_detecting
JeremyClark
House1:LivingRoom:Camera:Measure:occupant_active is_detecting
JeremyClark
House1:LivingRoom:Camera:Measure:occupant_count is_detecting 1

CONSOLE: CHECK JEREMYCLARK IS NOW ACTIVE
Occupant:JeremyClark has_name JeremyClark
Occupant:JeremyClark is_in_room House1:LivingRoom
Occupant:JeremyClark has_id JeremyClark
Occupant:JeremyClark is_active true
Occupant:JeremyClark is_member_of House1
Occupant:JeremyClark is_type Adult




CONSOLE: ===================
CONSOLE: DANGEROUS SMOKE LEVEL (FIRE) DETECTED — OCCUPANTS IN HOUSE
CONSOLE: ===================

CONSOLE: CREATE DANGEROUS SMOKE LEVEL (FIRE) RULE
Created command: BroadcastFireWarning
Created command: TurnAllLightsOnInHouse
Created command: IssueEmergencyPhoneCall
Created predicate: IsHouseOccupied
Created predicate: IsSmokeLevelOver100
Created rule: DangerousSmokeLevel
Added predicate: 'IsHouseOccupied' to rule: 'DangerousSmokeLevel'
Added predicate: 'IsSmokeLevelOver100' to rule: 'DangerousSmokeLevel'
Added context: 'AllContext' to rule: 'DangerousSmokeLevel'
Added command: 'BroadcastFireWarning' to rule: 'DangerousSmokeLevel'
Added command: 'TurnAllLightsOnInHouse' to rule: 'DangerousSmokeLevel'
```

Added command: 'IssueEmergencyPhoneCall' to rule:
'DangerousSmokeLevel'

Rule 'DangerousSmokeLevel' subscribed to feature:
'House1:LivingRoom:SmokeDetector:Measure:smoke_level

CONSOLE: CREATE EVACUATION ROUTE SUGGESTION RULE
Created command: BroadcastWindowEvacuationRoute
Created predicate: IsAvaBroadcastingEvacuation
Created predicate: RoomOnFirstFloor
Created predicate: RoomHasWindow
Created rule: EvacuationRouteSuggestion
Added predicate: 'IsAvaBroadcastingEvacuation' to rule:
'EvacuationRouteSuggestion'
Added predicate: 'RoomOnFirstFloor' to rule:
'EvacuationRouteSuggestion'
Added predicate: 'RoomHasWindow' to rule: 'EvacuationRouteSuggestion'
Added context: 'AllContext' to rule: 'EvacuationRouteSuggestion'
Added command: 'BroadcastWindowEvacuationRoute' to rule:
'EvacuationRouteSuggestion'

Rule 'EvacuationRouteSuggestion' subscribed to feature:
'House1:LivingRoom:Ava:Setting:text_to_speech

CONSOLE: INIT STATE
House1:LivingRoom:MainLights is_of_type MainLights
House1:LivingRoom:MainLights is_in_room House1:LivingRoom
House1:LivingRoom:MainLights:Setting:Lumens is_set_to 100
House1:LivingRoom:MainLights:Setting:Light_Power is_set_to OFF
House1:LivingRoom:Sconces is_of_type Sconces
House1:LivingRoom:Sconces is_in_room House1:LivingRoom
House1:LivingRoom:Sconces:Setting:Lumens is_set_to 100
House1:LivingRoom:Sconces:Setting:Light_Power is_set_to OFF
CONTROLLER: Rule 'EvacuationRouteSuggestion' received update
notification from House1:LivingRoom:Ava:Setting:text_to_speech
CONTROLLER: Predicate
'(context[context['notifyingObject'].fqn].is_set_to.indexOf("Evacuate!
") !== -1);' is false
House1:LivingRoom:Ava is_in_room House1:LivingRoom
House1:LivingRoom:Ava is_of_type Ava
House1:LivingRoom:Ava:Measure:voice_command is_detecting
Light_Power_to_OFF
House1:LivingRoom:Ava:Setting:text_to_speech is_set_to Nothing

CONSOLE: CONFIRM LIGHTS ARE OFF, VOICE RESPONSE IS EMPTY AND EMERGENCY
PHONE IS ON HOOK
House1:LivingRoom:MainLights:Setting:Light_Power is_set_to OFF
House1:LivingRoom:Sconces:Setting:Light_Power is_set_to OFF
House1:LivingRoom:EmergencyPhone:Setting:call_mode is_set_to HANGUP
House1:LivingRoom:Ava:Setting:text_to_speech is_set_to Nothing

```
CONSOLE: DETECT HIGH SMOKE LEVEL > 100
CONTROLLER: Rule 'DangerousSmokeLevel' received update notification
from House1:LivingRoom:SmokeDetector:Measure:smoke_level
CONTROLLER: Predicate 'var targetRoom =
context['notifyingObject'].fqn.split(':',2).join(':',2);
(context[targetRoom].has_occupant_count > 0);' is true
CONTROLLER: Predicate
'(context[context['notifyingObject'].fqn].is_detecting > 100);' is
true
CONTROLLER: Rule 'DangerousSmokeLevel' all predicates pass. Executing
commands.
CONTROLLER: Rule 'DangerousSmokeLevel' executing command var r =
{'targetDeviceScope':'House1',
'targetDeviceStateFqn':'Setting:Light_Power', 'targetValue':'ON'};r;
CONTROLLER: Rule 'DangerousSmokeLevel' executing command var r =
{'targetDeviceScope':'House1:LivingRoom:EmergencyPhone',
'targetDeviceStateFqn':'Setting:call_mode', 'targetValue':'CALL'};r;
CONTROLLER: Rule 'DangerousSmokeLevel' executing command var r =
{'targetDeviceScope':'House1',
'targetDeviceStateFqn':'Setting:text_to_speech',
'targetValue':'Dangerous_Smoke_Level_Detected._Evacuate!'};r;
CONTROLLER: Rule 'EvacuationRouteSuggestion' received update
notification from House1:LivingRoom:Ava:Setting:text_to_speech
CONTROLLER: Predicate
'(context[context['notifyingObject'].fqn].is_set_to.indexOf("Evacuate!
") !== -1);' is true
CONTROLLER: Predicate 'var targetRoomFqn =
context['notifyingObject'].roomFqn;
(context[targetRoomFqn].has_window_count > 0);' is true
CONTROLLER: Predicate 'var targetRoomFqn =
context['notifyingObject'].roomFqn;(context[targetRoomFqn].is_on_floor
== 1);' is true
CONTROLLER: Rule 'EvacuationRouteSuggestion' all predicates pass.
Executing commands.
CONTROLLER: Rule 'EvacuationRouteSuggestion' executing command var r =
{'targetDeviceScope':'House1',
'targetDeviceStateFqn':'Setting:text_to_speech',
'targetValue':'Exit_House_Immediatly!
_If_Door_Is_Blocked_Use_Window!'};r;
CONTROLLER: Rule 'EvacuationRouteSuggestion' received update
notification from House1:LivingRoom:Ava:Setting:text_to_speech
CONTROLLER: Predicate
'(context[context['notifyingObject'].fqn].is_set_to.indexOf("Evacuate!
") !== -1);' is false
House1:LivingRoom:SmokeDetector is_of_type SmokeDetector
House1:LivingRoom:SmokeDetector is_in_room House1:LivingRoom
House1:LivingRoom:SmokeDetector:Measure:smoke_level is_detecting 101

CONSOLE: CONFIRM LIGHTS ARE ON, VOICE RESPONSE IS EVACUATION NOTICE
```

AND EMERGENCY PHONE IS IN CALL MODE
House1:LivingRoom:MainLights:Setting:Light_Power is_set_to ON
House1:LivingRoom:Sconces:Setting:Light_Power is_set_to ON
House1:LivingRoom:EmergencyPhone:Setting:call_mode is_set_to CALL
House1:LivingRoom:Ava:Setting:text_to_speech is_set_to
Exit_House_Immediatly!_If_Door_Is_Blocked_Use_Window!

CONSOLE: ===================
CONSOLE: OVEN TIMER EXPIRE
CONSOLE: ===================

CONSOLE: OVEN TIMER EXPIRE RULE
Created command: NotifyFoodIsReady
Created command: TurnOvenOff
Created command: StopOvenTimer
Created predicate: TimerIsAtZero
Created predicate: TimerIsInStartMode
Created rule: OvenTimerExpired
Added predicate: 'TimerIsAtZero' to rule: 'OvenTimerExpired'
Added predicate: 'TimerIsInStartMode' to rule: 'OvenTimerExpired'
Added predicate: 'RoomHasWindow' to rule: 'OvenTimerExpired'
Added context: 'AllContext' to rule: 'OvenTimerExpired'
Added command: 'NotifyFoodIsReady' to rule: 'OvenTimerExpired'
Added command: 'TurnOvenOff' to rule: 'OvenTimerExpired'
Added command: 'StopOvenTimer' to rule: 'OvenTimerExpired'

Rule 'OvenTimerExpired' subscribed to feature:
'House1:Kitchen:Oven:Measure:timer_value

CONSOLE: INIT STATE
CONTROLLER: Rule 'EvacuationRouteSuggestion' received update
notification from House1:LivingRoom:Ava:Setting:text_to_speech
CONTROLLER: Predicate
'(context[context['notifyingObject'].fqn].is_set_to.indexOf("Evacuate!
") !== -1);' is false
House1:LivingRoom:Ava is_in_room House1:LivingRoom
House1:LivingRoom:Ava is_of_type Ava
House1:LivingRoom:Ava:Measure:voice_command is_detecting
Light_Power_to_OFF
House1:LivingRoom:Ava:Setting:text_to_speech is_set_to Nothing

CONSOLE: CONFIRM OVEN IS ON (target_temp != 0) NO TEXT TO SPEECH
COMMANDS AND
House1:Kitchen:Oven:Setting:target_temp is_set_to 350
House1:LivingRoom:Ava:Setting:text_to_speech is_set_to Nothing

CONSOLE: DETECT OVEN TIMER VALUE TO 0
CONTROLLER: Rule 'OvenTimerExpired' received update notification from

House1:Kitchen:Oven:Measure:timer_value
CONTROLLER: Predicate
'(context['House1:Kitchen:Oven:Measure:timer_value'].is_detecting ==
0);' is true
CONTROLLER: Predicate 'var targetRoomFqn =
context['notifyingObject'].roomFqn;
(context[targetRoomFqn].has_window_count > 0);' is true
CONTROLLER: Predicate
'(context['House1:Kitchen:Oven:Setting:timer_mode'].is_set_to ==
'START');' is true
CONTROLLER: Rule 'OvenTimerExpired' all predicates pass. Executing
commands.
CONTROLLER: Rule 'OvenTimerExpired' executing command var r =
{'targetDeviceScope':'House1',
'targetDeviceStateFqn':'Setting:text_to_speech',
'targetValue':'Food_Is_Ready!'};r;
CONTROLLER: Rule 'EvacuationRouteSuggestion' received update
notification from House1:LivingRoom:Ava:Setting:text_to_speech
CONTROLLER: Predicate
'(context[context['notifyingObject'].fqn].is_set_to.indexOf("Evacuate!
") !== -1);' is false
CONTROLLER: Rule 'OvenTimerExpired' executing command var r =
{'targetDeviceScope':'House1:Kitchen:Oven',
'targetDeviceStateFqn':'Setting:timer_mode', 'targetValue':'STOP'};r;
CONTROLLER: Rule 'OvenTimerExpired' executing command var r =
{'targetDeviceScope':'House1:Kitchen:Oven',
'targetDeviceStateFqn':'Setting:target_temp', 'targetValue':'0'};r;
House1:Kitchen:Oven is_in_room House1:Kitchen
House1:Kitchen:Oven is_of_type Oven
House1:Kitchen:Oven:Measure:current_temp is_detecting 350
House1:Kitchen:Oven:Setting:timer_mode is_set_to STOP
House1:Kitchen:Oven:Measure:timer_value is_detecting 0
House1:Kitchen:Oven:Setting:target_temp is_set_to 0
House1:Kitchen:Oven:Setting:timer_start_value is_set_to 120

CONSOLE: CONFIRM OVEN IS OFF (target_temp == 0) AND AVA SENDING VOICE
MESSAGE THAT FOOD IS DONE
House1:Kitchen:Oven:Setting:target_temp is_set_to 0
House1:LivingRoom:Ava:Setting:text_to_speech is_set_to Food_Is_Ready!

CONSOLE: ===================
CONSOLE: BEER COUNT BELOW THRESHOLD!
CONSOLE: ===================

CONSOLE: CREATE RULE FOR BEER SUPPLY LOW
Created command: RequestForBeer
Created predicate: BeerCountAtThreshold
Created rule: BeerSupplyLow

Added predicate: 'BeerCountAtThreshold' to rule: 'BeerSupplyLow'
Added context: 'AllContext' to rule: 'BeerSupplyLow'
Added command: 'RequestForBeer' to rule: 'BeerSupplyLow'
Rule 'BeerSupplyLow' subscribed to feature:
'House1:Kitchen:Refrigerator:Measure:beer_count

CONSOLE: SET BEER COUNT TO 3
CONTROLLER: Rule 'BeerSupplyLow' received update notification from
House1:Kitchen:Refrigerator:Measure:beer_count
{is_set_to=3}
CONTROLLER: Predicate
'print(context['House1:Kitchen:Refrigerator:Setting:beer_count_reminde
r']);
(context['House1:Kitchen:Refrigerator:Measure:beer_count'].is_detectin
g ==
context['House1:Kitchen:Refrigerator:Setting:beer_count_reminder'].is_
set_to);' is true
CONTROLLER: Rule 'BeerSupplyLow' all predicates pass. Executing
commands.
CONTROLLER: Rule 'BeerSupplyLow' executing command var r =
{'targetDeviceScope':'House1',
'targetDeviceStateFqn':'Setting:text_to_speech',
'targetValue':'Beer_Low!_Would_You_Like_To_Order_more!'};r;
CONTROLLER: Rule 'EvacuationRouteSuggestion' received update
notification from House1:LivingRoom:Ava:Setting:text_to_speech
CONTROLLER: Predicate
'(context[context['notifyingObject'].fqn].is_set_to.indexOf("Evacuate!
") !== -1);' is false
House1:Kitchen:Refrigerator is_of_type Refrigerator
House1:Kitchen:Refrigerator is_in_room House1:Kitchen
House1:Kitchen:Refrigerator:Measure:beer_count is_detecting 3
House1:Kitchen:Refrigerator:Setting:need_beer is_set_to NO
House1:Kitchen:Refrigerator:Setting:beer_count_reminder is_set_to 3

CONSOLE: CONFIRM VOICE NOTIFICATION ASKING IF WANT TO ORDER MORE BEER
House1:Kitchen:Refrigerator:Measure:beer_count is_detecting 3
House1:Kitchen:Refrigerator:Setting:need_beer is_set_to NO
House1:Kitchen:AvaKitchen:Setting:text_to_speech is_set_to Beer_Low!
_Would_You_Like_To_Order_more!

CONSOLE: ASK FOR MORE BEER
Rule 'GenericVoiceCommand' subscribed to feature:
'House1:Kitchen:AvaKitchen:Measure:voice_command
CONTROLLER: Rule 'GenericVoiceCommand' received update notification
from House1:Kitchen:AvaKitchen:Measure:voice_command
CONTROLLER: Predicate 'var r =
context[context['notifyingObject'].fqn].is_detecting.indexOf("_to_")!
==-1; r;' is true
CONTROLLER: Rule 'GenericVoiceCommand' all predicates pass. Executing
commands.

```
CONTROLLER: Rule 'GenericVoiceCommand' executing command var
notifyingObjectFqn = context['notifyingObject'].fqn;var r =
{'targetDeviceScope':notifyingObjectFqn.split(":", 2).join(":", 2),
'targetDeviceStateFqn':'Setting:'+context[notifyingObjectFqn].is_detec
ting.split("_to_")[0],
'targetValue':context[notifyingObjectFqn].is_detecting.split("_to_")
[1]};r;
House1:Kitchen:AvaKitchen is_of_type AvaKitchen
House1:Kitchen:AvaKitchen is_in_room House1:Kitchen
House1:Kitchen:AvaKitchen:Measure:voice_command is_detecting
need_beer_to_YES
House1:Kitchen:AvaKitchen:Setting:text_to_speech is_set_to Beer_Low!
_Would_You_Like_To_Order_more!

CONSOLE: CONFIRM NEED BEER IS NOW YES (which will trigger a beer order
from the smart refrigerator)
House1:Kitchen:Refrigerator:Setting:need_beer is_set_to YES
```