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## title: Create action function for the rule weight: 25

Create a file action.js for the action part of the rule.

Complete these steps:

1. Create the action.js file and include the object, relation, and dotenv modules.

```
require('dotenv').config({path: __dirname + '/.env'});
var KnowledgeObject = require('./sdk/object');
var KnowledgeRelation = require('./sdk/relation');
```

The action part of the rule finds the front door that is open and sends an alert to the owner of the house that the door belongs to. An alert is sent to the home owner through a chat bot UI.

2. Add a main function to action.js to find the name of the door that has opened and to send an alert to the chat bot to notify the owner of the potential security breach.

```
// Main function
function main(event) {
 console.log('in action main');
 var doorId = event[0].id;
 console.log('got door id as ' + doorId)
 return KnowledgeObject.retrieve(doorId).then((doorObj) => {
    console.log('Door name', JSON.stringify(doorObj));
   name = doorObj.attributes.name;
   var post_data = {
      'key': process.env.API_KEY,
     'alert': `Alert! Your ${name} is open!`
   };
   var headers = {
      'Content-type': 'application/json',
   var options = {
     url: 'http://wpa-chat-bot.mybluemix.net/notification',
     method: 'POST',
     headers: headers,
     body: JSON.stringify(post data)
   };
   return new Promise(function (res, rej) {
      request(options, function (err, response, body) {
        if (err | response.statusCode !== 200) {
          console.log('Error (status code ' + response.statusCode + ': ' + err + '
' + body);
          rejData = { code: response.statusCode, body: body };
          rej(rejData);
```

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```
} else {
    resData = { body: body };
    res(resData);
    }
    });
    });
}
```

3. Add code to allow you to test the action rule locally as well as on IBM Cloud Functions.

```
// To support testing locally and running in Cloud Functions
if (require.main === module) {
 console.log("running locally")
 // parse the input from the command line $ node index.js 123
 doorID = process.argv[2]
 console.log(process.argv)
 main({ results: [{ id: doorID, type: 'Door' }] })
    .then((result) => {
      console.log("action is done running success");
      console.log(JSON.stringify(result));
    })
    .catch((err) => {
      console.log("action is done running error");
      console.log(JSON.stringify(err));
   });
} else {
  console.log("running in openwhisk")
  exports.main = main;
}
```

- 4. Save your changes to action.js.
- 5. Update the doorOpenAgent in the homeSecurity.js file to run the condtions.js and actions.js functions. Update the agent as follows:

```
// create the agents to connect to the Message Hub and subscribe to object update
events.
var doorOpenAgent = new Agent('object-update',
    conditions.main,
    actions.main);

function runAgent() {
    Promise.all([
        doorOpenAgent.connect(),
    ]).then(function () {
        doorOpenAgent.subscribe();
        console.log('Subscription created\n\n');
}
```

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```
}, cleanup); //cleanup if the sub fails
}
```

## What to do next?

Learn how to invoke the rule.