Lab 1 – Alchemy Image Analysis

1 Overview

The Alchemy Vision service allows to analyze the contents of an image and extract features from it. The Face Detection service is able to identify multiple faces within the image, and determine their gender and age with a confidence score, and identify celebrities.

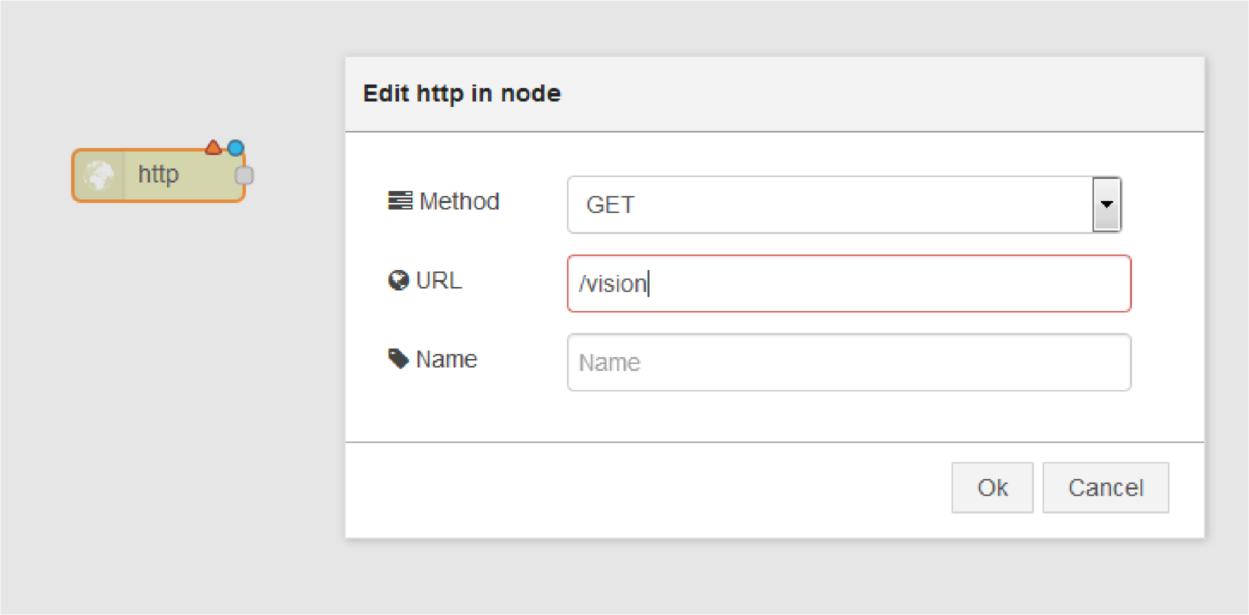
2 Which Node-RED node gets used here

The Node-RED Image Analysis node provides a very easy wrapper node that takes an image URL or binary stream as input, and produces a array of detected faces , age, bounding box, gender and name.

3 Steps to Create

There are 7 steps to create the whole flow.

3.1 Add a HTTP node



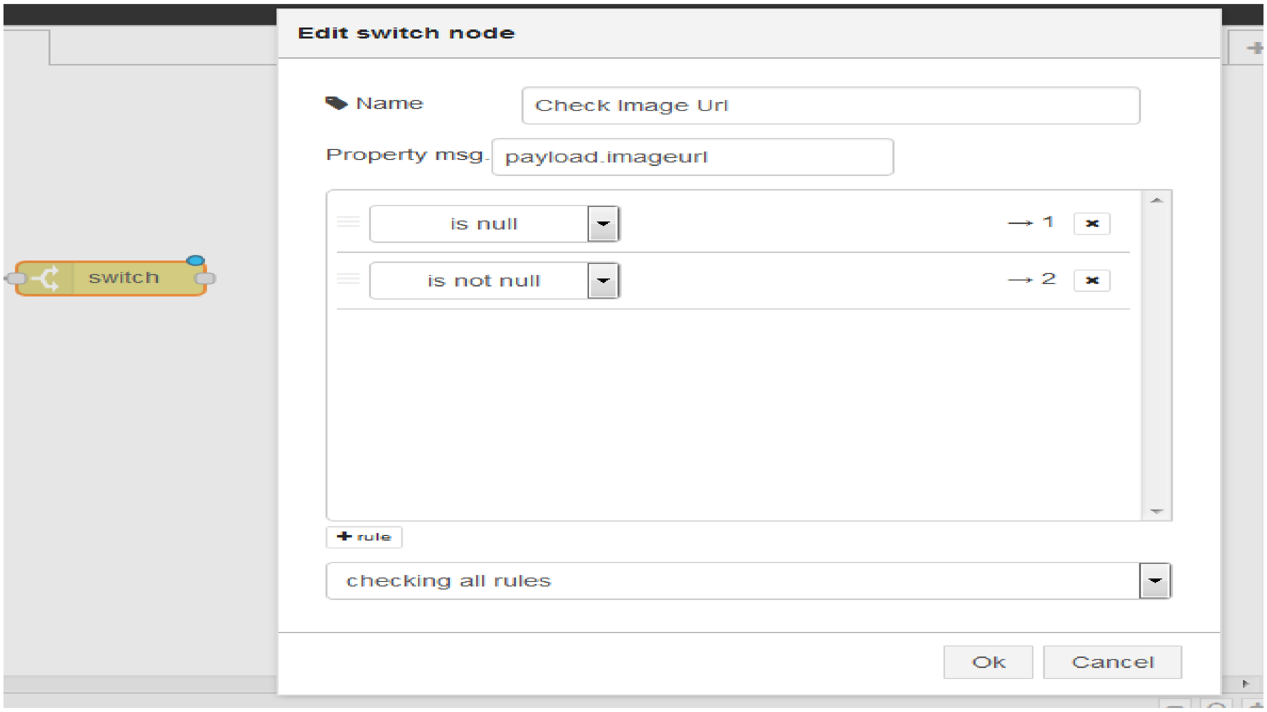
Edit http in node

Method: GET

URL: /vision

Name: Name

3.2 Add a SWITCH node and configure as below



Edit switch node

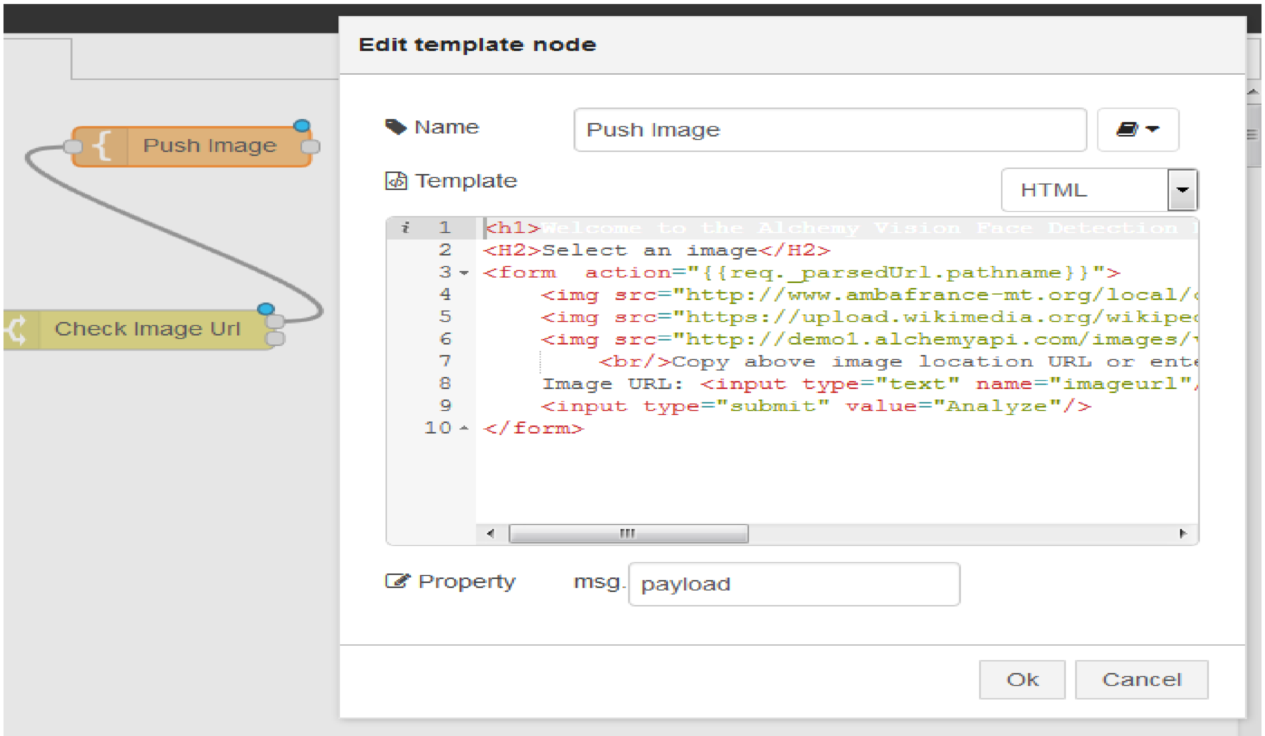
Name: Check Image Url

Property msg. payload.imageurl

- is null → 1
- is not null → 2

checking all rules

3.3 Add a TEMPLATE node and configure as below



Edit template node

Name: Push Image

Template: HTML

```
<h1>Welcome to the Alchemy Vision Face Detection
<H2>Select an image</H2>
<form  action="{{req._parsedUrl.pathname}}">
     <img src="http://www.ambafrance-mt.org/local/
     <img src="https://upload.wikimedia.org/wikipe
     <img src="http://demo1.alchemyapi.com/images/
          <br/>Copy above image location URL or ente
     Image URL: <input type="text" name="imageurl",
     <input type="submit" value="Analyze"/>
</form>
```

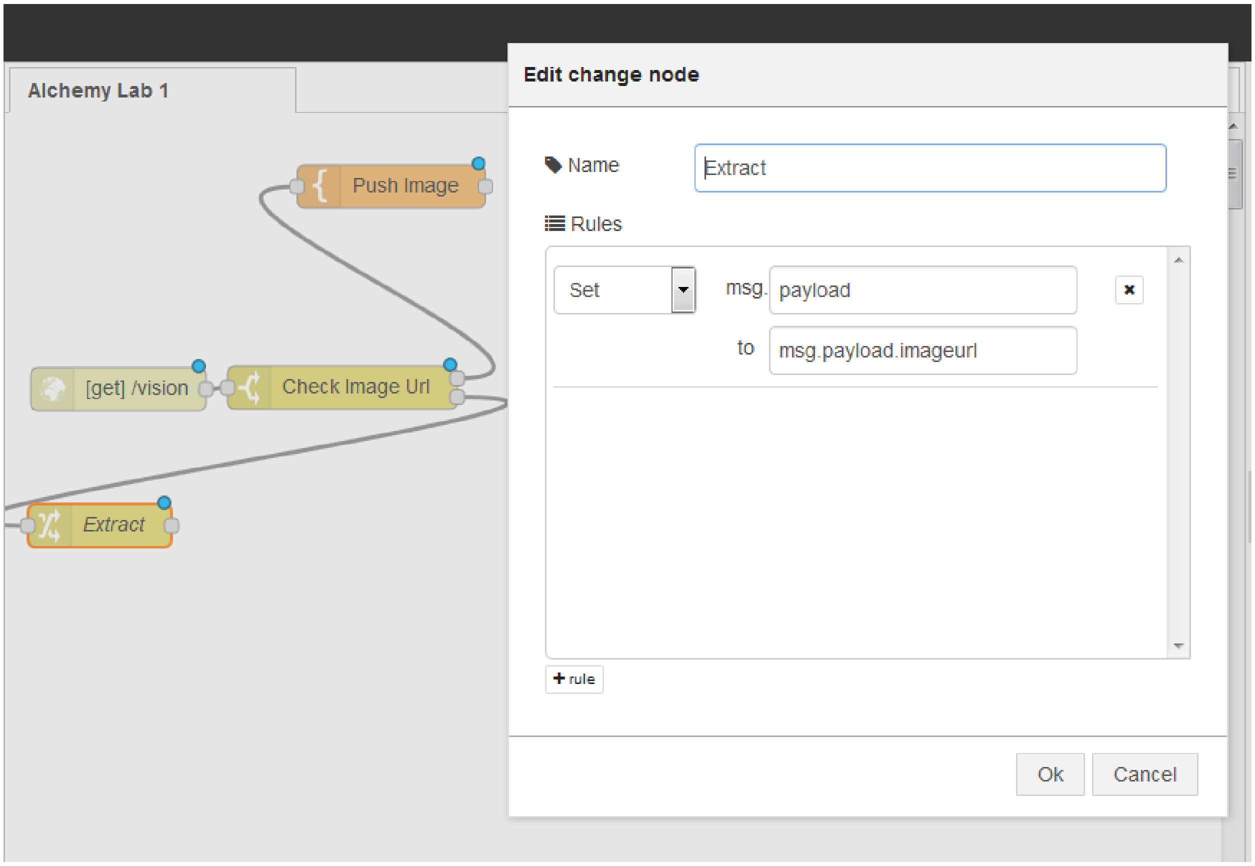
Property msg. payload

Copy the below HTML and paste here

```
<h1>IBM ECOD LAB 1</h1>
```

```
<H2>Select an image</H2>
<form  action="{{req._parsedUrl.pathname}}">
   <img src="http://www.ambafrance-mt.org/local/cache-vignettes/L945xH539/family_photo8851-b0e9b.jpg"
height='100'/>
   <img src="https://upload.wikimedia.org/wikipedia/commons/f/f1/34th_G8_summit_member_20080707.jpg"
height='100'/>
   <img src="http://demo1.alchemyapi.com/images/vision/politicians.jpg" height='100'/>
      <br/>Copy above image location URL or enter any image URL:<br/>
   Image URL: <input type="text" name="imageurl"/>
   <input type="submit" value="Analyze"/>
</form>
```

3.4 Add a CHANGE node to convert variables



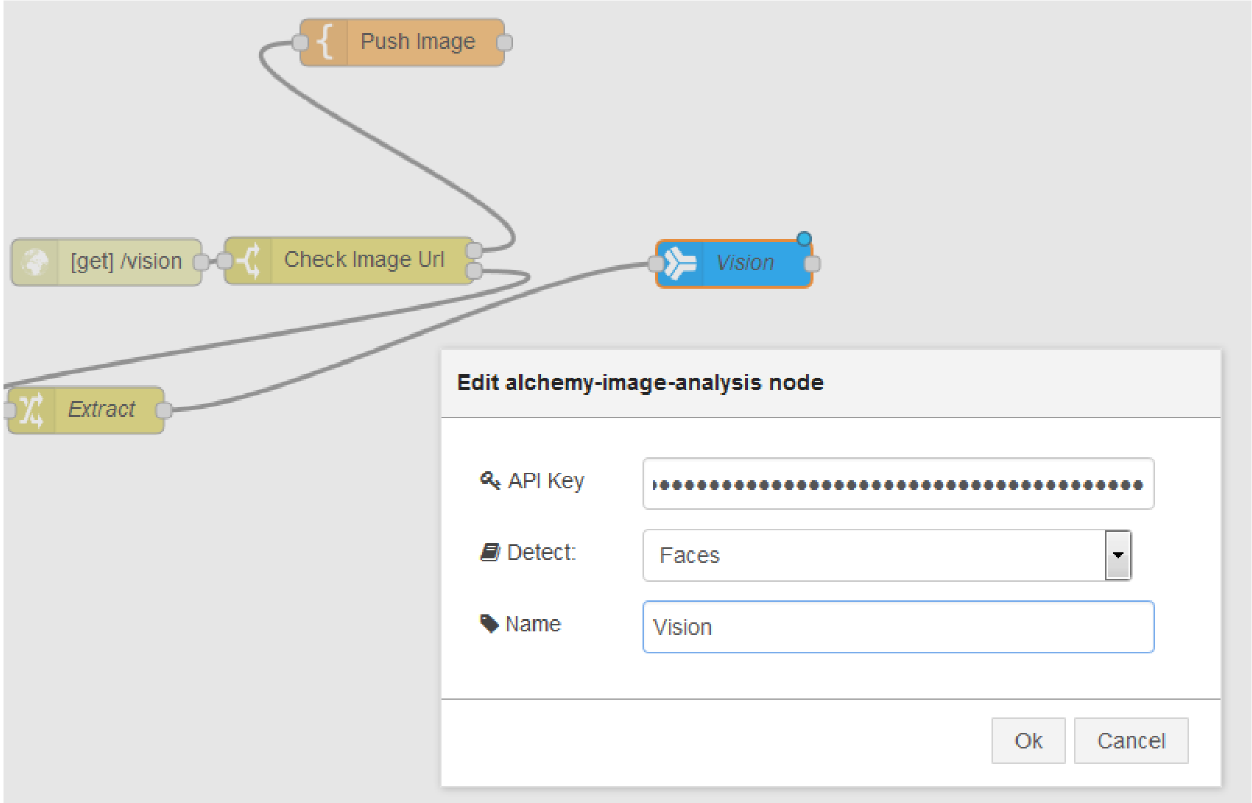
Name: Extract

Rules

Set msg. payload

to msg.payload.imageurl

3.5 Add the Alchemy IMAGE ANALYSIS node



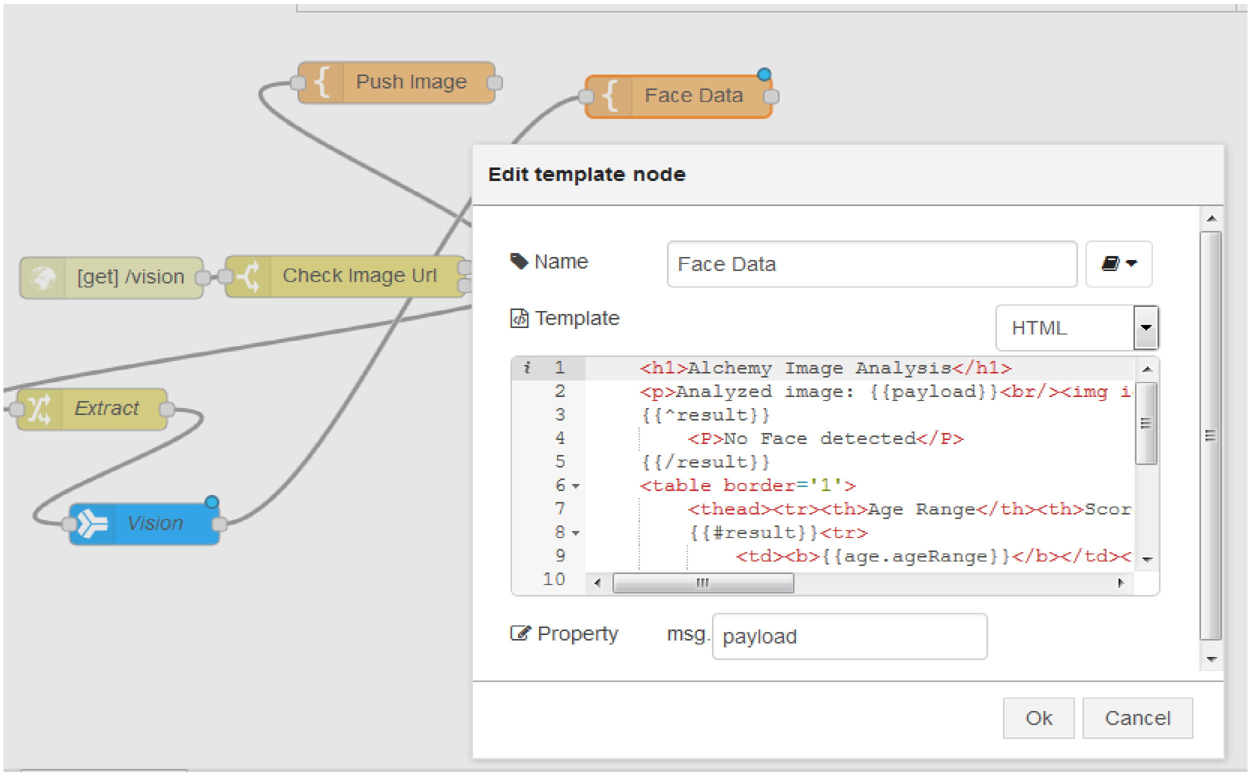
Edit alchemy-image-analysis node

API Key ••

Detect: Faces

Name Vision

3.6 Add another TEMPLATE and configure as below



Edit template node

Name: Face Data

Template: HTML

```
<h1>Alchemy Image Analysis</h1>
<p>Analyzed image: {{payload}}<br/><img i
{{^result}}
    <P>No Face detected</P>
{{/result}}
<table border='1'>
    <thead><tr><th>Age Range</th><th>Scor
    {{#result}}<tr>
        <td><b>{{age.ageRange}}</b></td><
```

Property msg. payload

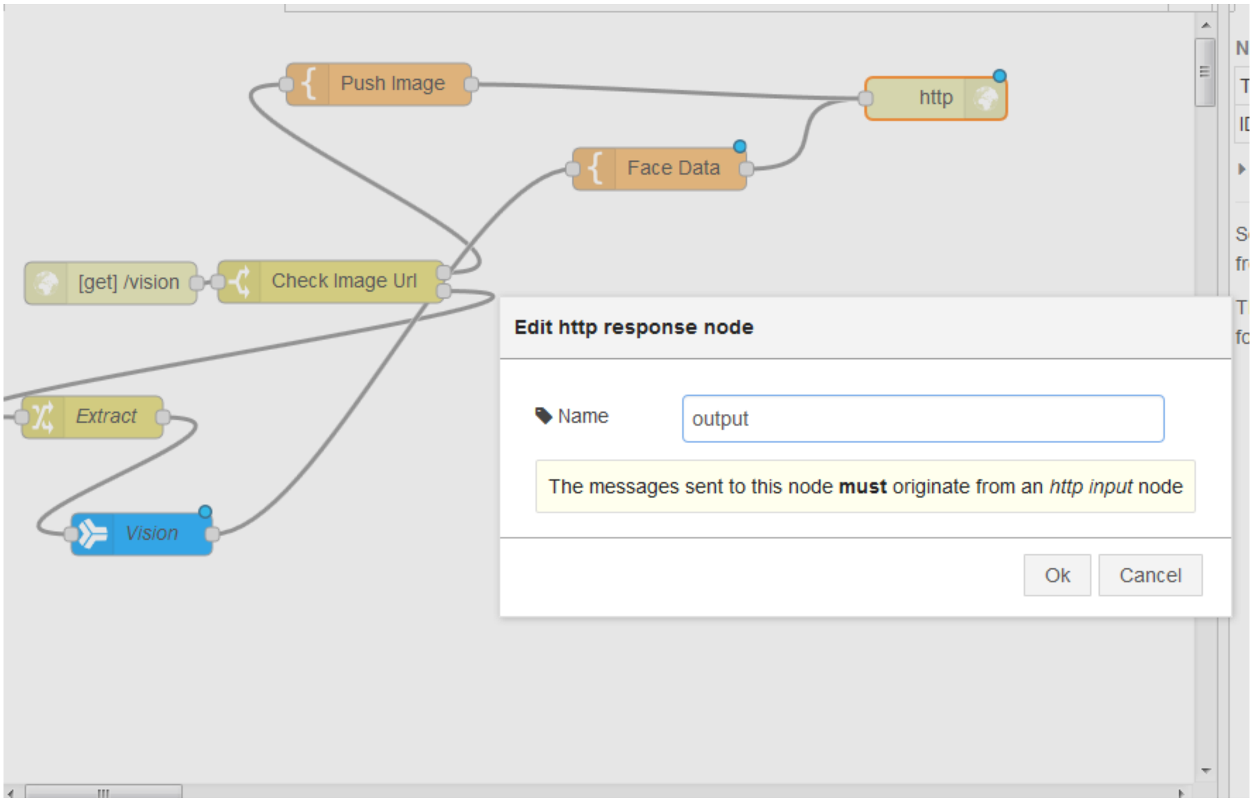
Ok | Cancel

Copy the below HTML and paste here

```
<h1>IBM  ECOD LAB 1</h1>
<p>Analyzed image: {{payload}}<br/><img id="alchemy_image" src="{{payload}}" height="50"/></p>
{{^result}}
    <P>No  Face detected</P>
{{/result}}
<table border='1'>
    <thead><tr><th>Age Range</th><th>Score</th><th>Gender</th><th>Score</th><th>Name</th></tr></thead>
    {{#result}}<tr>
        <td><b>{{age.ageRange}}</b></td><td><i>{{age.score}}</i></td>
        <td>{{gender.gender}}</td><td>{{gender.score}}</td>
        {{#identity}}<td>{{identity.name}} ({{identity.score}})</td>{{/identity}}
    </tr>{{/result}}
</table>
<form  action="{{req._parsedUrl.pathname}}">
```

```
    <input type="submit" value="Try again"/>
  </form>
```

3.7 Add a HTTP RESPONSE node and modify its name



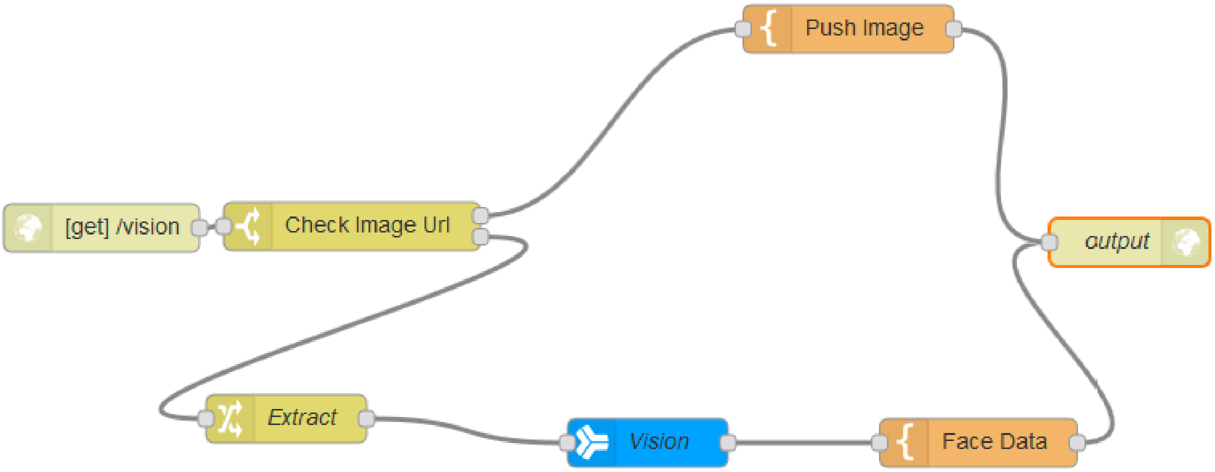
Edit http response node

Name: output

The messages sent to this node **must** originate from an *http input* node

4 Steps to see Output

4.1 Verify that flow looks as below



4.2 Deploy this flow using the button

4.3 See the output using the app url <Your App Name>.mybluemix.net/vision

5 Learn more

5.1 Follow me @ShubhPrevails to get instant access to all the free Bluemix and Watson events and sessions in Bangalore.

5.2 Join my meetup group *http://www.meetup.com/thebluemix/*

5.3 Watch my github repo for Watson and Alchemy Code and Recipes: - *https://github.com/ShubhradeepNandi/WatsonLabs*

Created by Shubhradeep Nandi for IBM ECOD Bluemix Watson trainings