Chapter 9: Visual Recognition and Images

Learning Bluemix & Cognitive

Bob Dill, IBM Distinguished Engineer, CTO Global Technical Sales

Git Repository: https://github.com/rddill-IBM/ZeroToCognitive

(Alchemy) Visual Recognition: three basic services:

(1) Find objects or faces in an image
(2) Create classifiers representing objects to be found in an image
(3) Find an image similar to one you've provided

A. Classify an Image
B. Detect Faces
C. Classifiers:
   A. Create a classifier
   B. Retrieve list of custom classifiers
   C. Retrieve classifier details
   D. Update a classifier
   E. Delete a Classifier

A. Classify an Image based on default or custom classifiers
B. Analyze faces in images and get data about them, such as estimated age, gender, plus names of celebrities. Images must be in .jpeg, or .png format. This functionality is not trainable, and does not support general biometric facial recognition.
C. Train a new multi-faceted classifier on the uploaded image data:
   A. A new custom classifier can be trained by several compressed (.zip) files, including files containing positive or negative images (.jpg, or .png). You must supply at least two compressed files, either two positive example files or one positive and one negative example file.
   B. Retrieve a list of user-created classifiers
   C. Retrieve information about a specific classifier.
   D. Update an existing classifier by adding new classes, or by adding new images to existing classes.You cannot update a custom classifier with a free API Key.r
   E. Delete a custom classifier with the specified classifier ID

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What's the story for this tutorial?

- Create a series of classifiers.
  - In the demo, we'll create a series of classifiers to do simple visuals recognition.
  - We will also use the detectFaces service to ensure that there is a 'face' in the supplied image.
  - Create a page which accepts a dropped image, uploads it for classification and returns the classification results. If a face is found, then it will be highlighted on the browser page.

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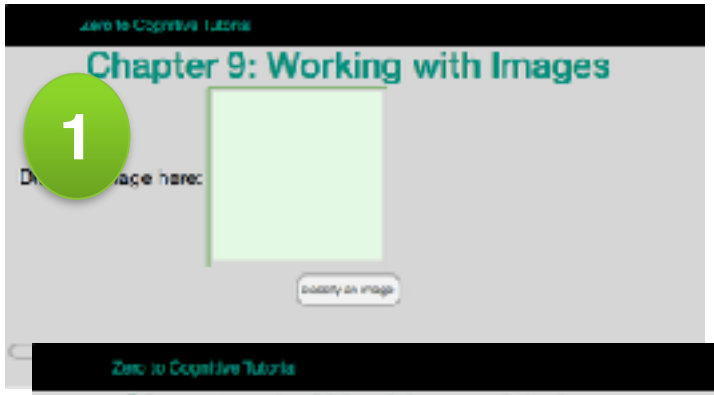
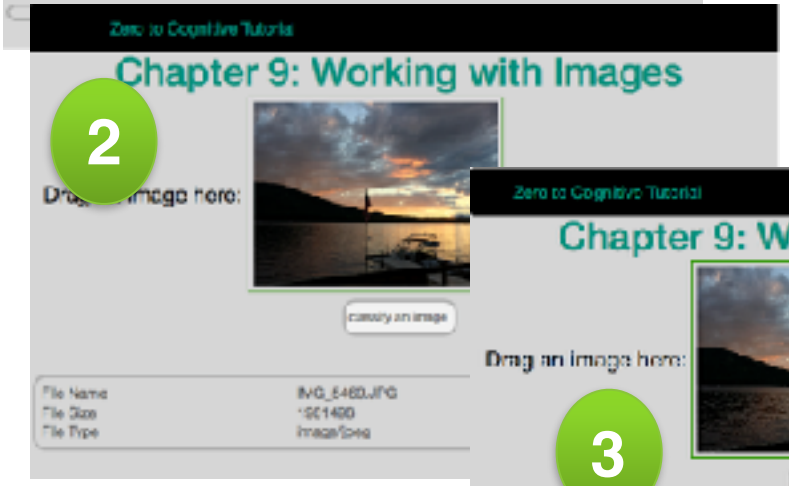
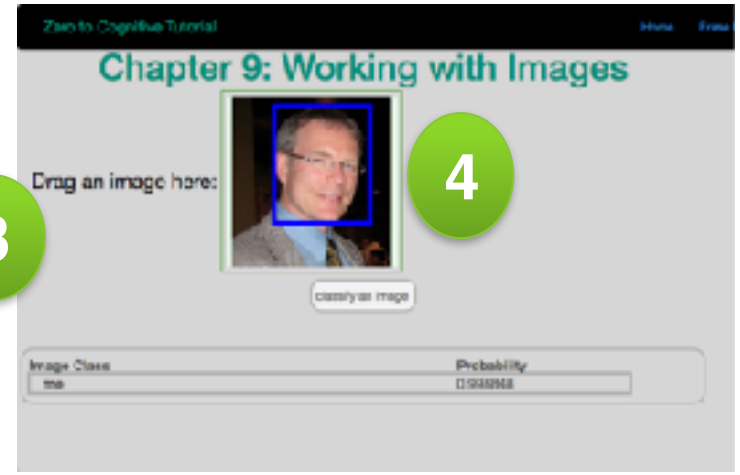
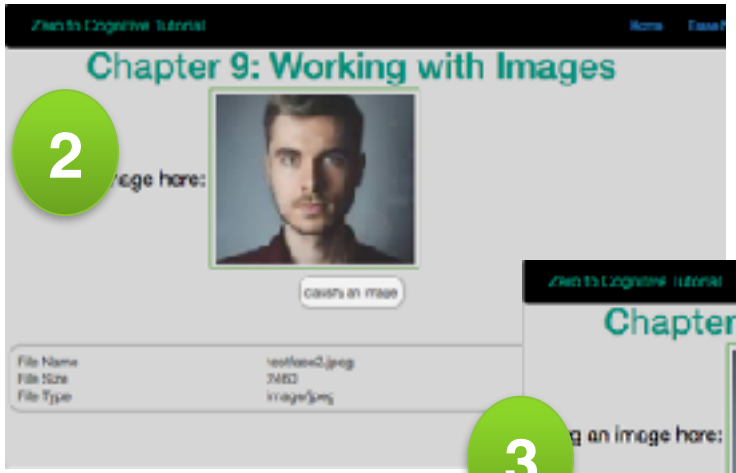
What are we building?

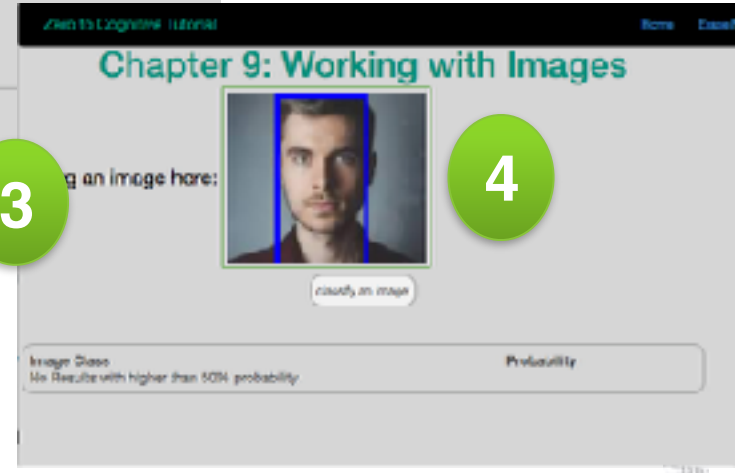
1. Drag and drop image onto web page
2. Check if ok to upload
3. Classify the image
4. Highlight the face











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The Plan: 30 minute Chapters with an hour or two of practice

1. The Story, Architecture for this app	
2. Setting up Bluemix	
3. Building your first Watson App	(Watson Speech to Text)
4. Getting Watson to talk back	(Watson Text to Speech)
5. Understanding Classifiers	(Watson NLC)
6. Creating a custom dialog with Watson	(custom Q&A, session management)
7. Authentication	(Custom Authentication)
8. Watson Discovery News	(Watson Discovery)
9. Visual Recognition and Images	(Watson Visual Recognition)
10.Watson Conversations	(Watson Conversations)
11.Watson Discovery	(Watson Discovery)

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Chapter 10: Watson Conversations

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