CS3380: DATABASE APPL & INFO SYS

Lab 2: Creating a Webserver & Database Using Azure

1. **Login to Azure:**
   a. Navigate to azure.microsoft.com
   b. Log in using you MU email credentials
   c. Make sure you specify '**Work or School**' during the login process unless you created a personal Azure account during registration.
   d. 3. Navigate to your portal. The screen should appear similar to the screenshot below.

2. **Creating a Webserver VM**
   a. Click **'New +'** at the bottom left of the screen.
   b. From the menu click **Computer >> Virtual Machine >> Quick Create**
   c. For the DNS Name: cs3380-*YOURPAWPRINT*
      i. e.g. cs3380-mapp86
      ii. All lowercase
      iii. **It is important you name this correctly if you want to receive points for this lab**
   d. Image: **Ubuntu Server 14.04 LTS**
   e. Size: **A0 (shared core, 768 MB memory)**
   f. Password: Choose something secure that you will remember
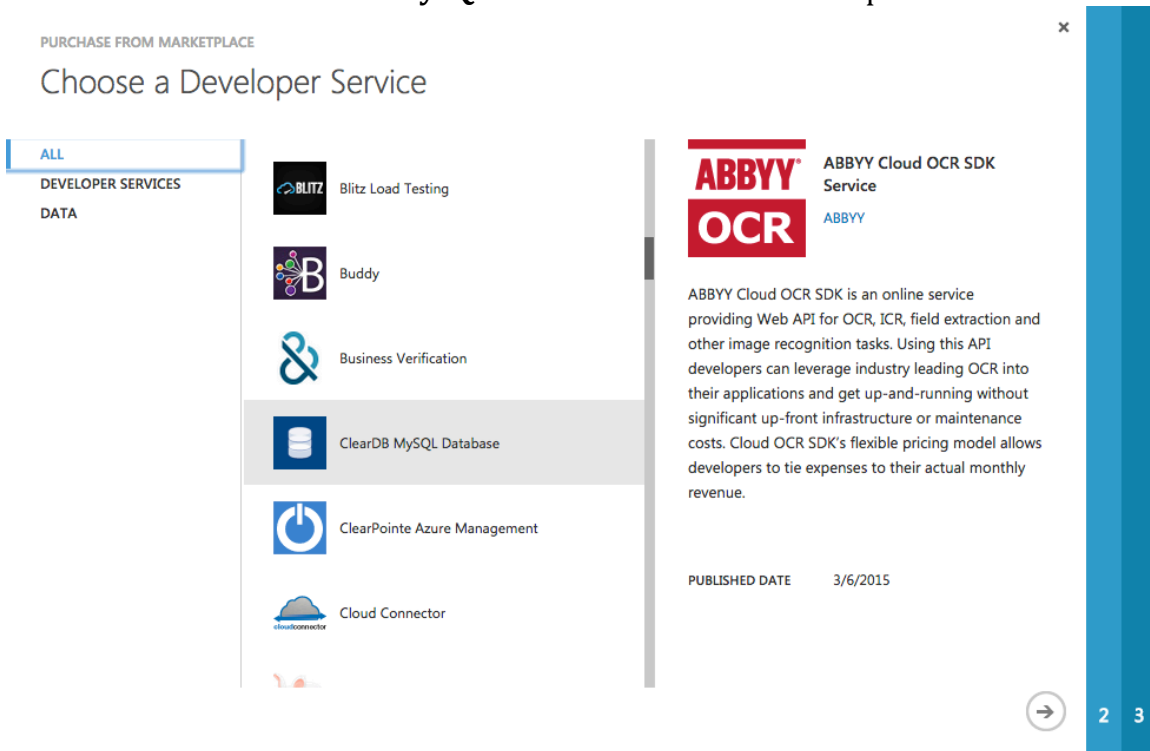   g. For region: **Central US**
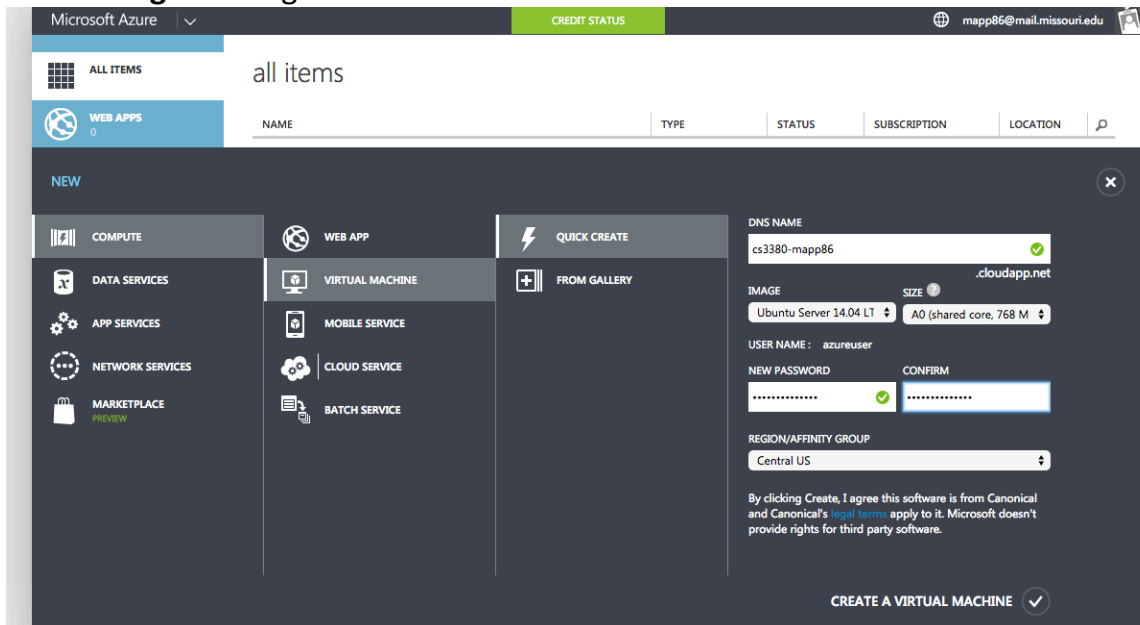
h. Click CREATE A VIRTUAL MACHINE
i. This will take a few minutes to create…

3. Create a MySQL Database
1. Click **'New +'** at the bottom left of the screen.
2. From the menu click **Marketplace**
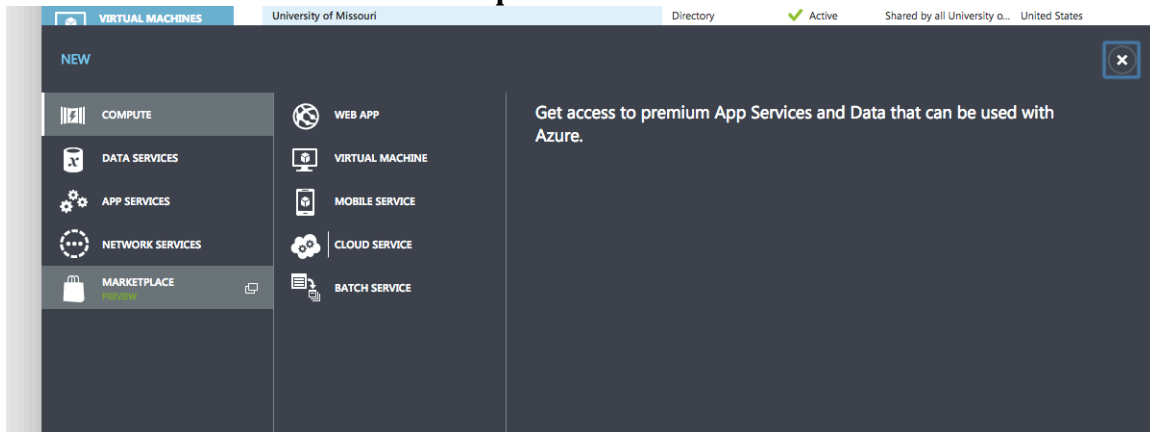
3. Then select **ClearDB MySQL Database** from the Marketplace menu

a. Click the arrow at the bottom right
b. Use the default **Free** tier DB
c. Modify the NAME: **cs3380-*YOURPAWPRINT***
d. For REGION, select **Central US**

PURCHASE FROM MARKETPLACE

Personalize Application and Service

PLANS (7)

◉ Free
    Free plan allows your application to recognize up to 100 pages per month.   0 USD/month

○ Plan S
    Plan S allows your application to recognize up to 500 pages per month.   29.99 USD/month

○ Plan M

PROMOTION CODE

NAME
cs3380-mapp87 ✔

REGION
West Europe

ABBYY OCR — ABBYY Cloud OCR SDK Service — ABBYY

ABBYY Cloud OCR SDK is an online service providing Web API for OCR, ICR, field extraction and other image recognition tasks. Using this API developers can leverage industry leading OCR into their applications and get up-and-running without significant up-front infrastructure or maintenance costs. Cloud OCR SDK's flexible pricing model allows developers to tie expenses to their actual monthly revenue.

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    e.   Click the **right arrow** at the bottom right of the screen
    f.   Click **Purchase**

4. Logging into your VM
    1.   Open up you favorite SSH Client
         a.   Windows users: putty, SecureCRT
         b.   Mac users: Terminal
         c.   Linux users: Terminal
    2.   For putty:
         a.   Host name: **cs3380-*YOURPAWPRINT*.cloudapp.net**
         b.   User name: **azureuser**
         c.   Password: You set this earlier when creating the VM

    3.   For Mac/Linux Terminal:
         a.   ssh azureuser@cs3380-*YOURPAWPRINT*.cloudapp.net
         b.   Password: You set this earlier when creating the VM

Setting up an Apache Webserver & MySQL client
    1.   Once you've logged into your VM run the following command:
         a.   sudo apt-get install apache2
             i.   agree or respond with 'Y' to all of the question prompts

b. sudo apt-get install mysql-client
   i. check that it is working by running 'man mysql' from the command line
2. Open Azure
3. Navigate to the list of your Virtual Machines
4. Click on your VM, **cs3380-**_YOURPAWPRINT_
5. Click the tab title, '**ENDPOINTS**'
6. At the bottom of the page, click '**ADD**'
   a. Add a stand-alone endpoint

ADD ENDPOINT

Add an endpoint to a virtual machine

Traffic coming to this endpoint will be sent to the virtual machine.

- ● ADD A STAND-ALONE ENDPOINT
- ○ ADD AN ENDPOINT TO AN EXISTING LOAD-BALANCED SET ❓

  (None)   ↕

   →

   b. Click the arrow at the bottom right of the panel
   c. From the dropdown menu, select **HTTP**

ADD ENDPOINT

Specify the details of the endpoint

NAME

HTTP   ⌄

PROTOCOL

TCP   ↕
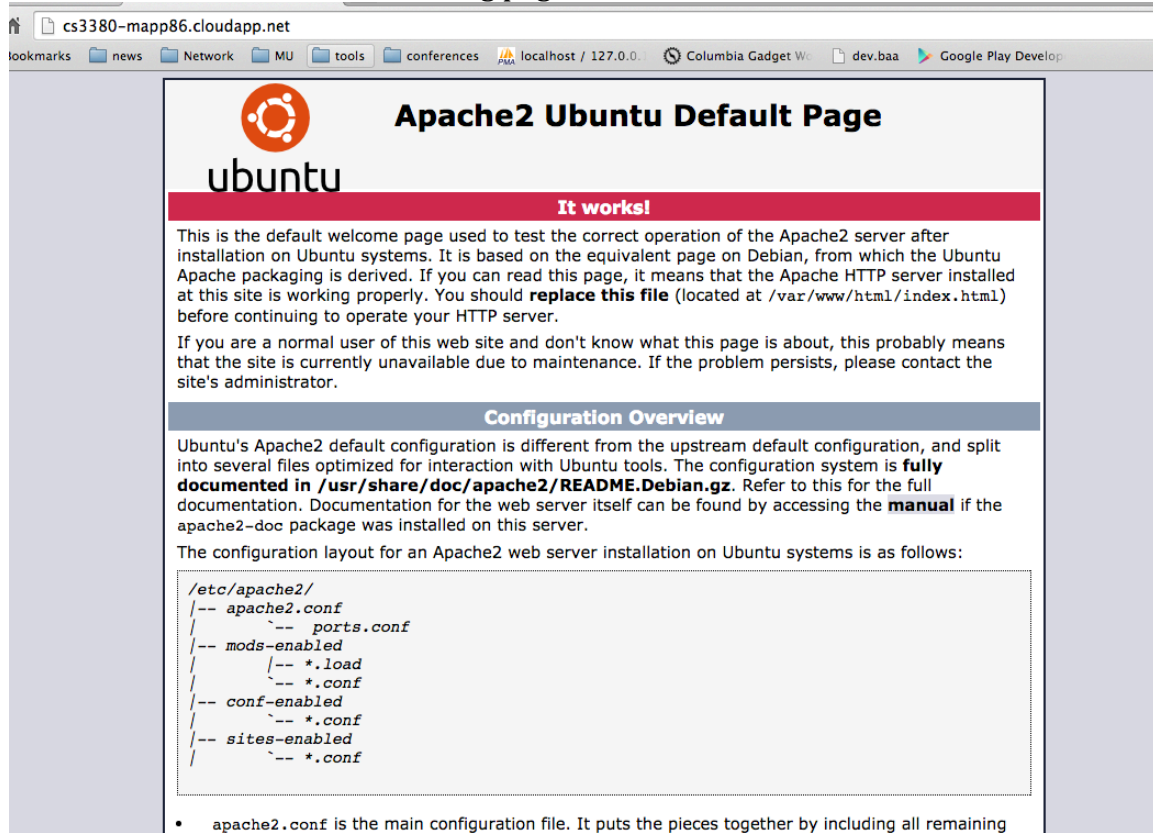
PUBLIC PORT

80

PRIVATE PORT

80

☐ CREATE A LOAD-BALANCED SET ❓
☐ ENABLE DIRECT SERVER RETURN ❓

   ← ✓

   d. Keep the default settings and click **Purchase**

7. To ensure everything worked, open a web browser and navigate to:
   cs3380-*YOURPAWPRINT*.cloudapp.net
8. You should see the following page:

Login to MySQL server from your VM
1. Login to your VM using a SSH client (Terminal, putty, etc..)
2. Open Azure
3. Scroll to the bottom of the left panel and click 'MARKETPLACE'
4. Click the service displayed in that list, **cs3380-*YOURPAWPRINT***
5. Click '**Go to the MySQL Database-as-a-Service...**'
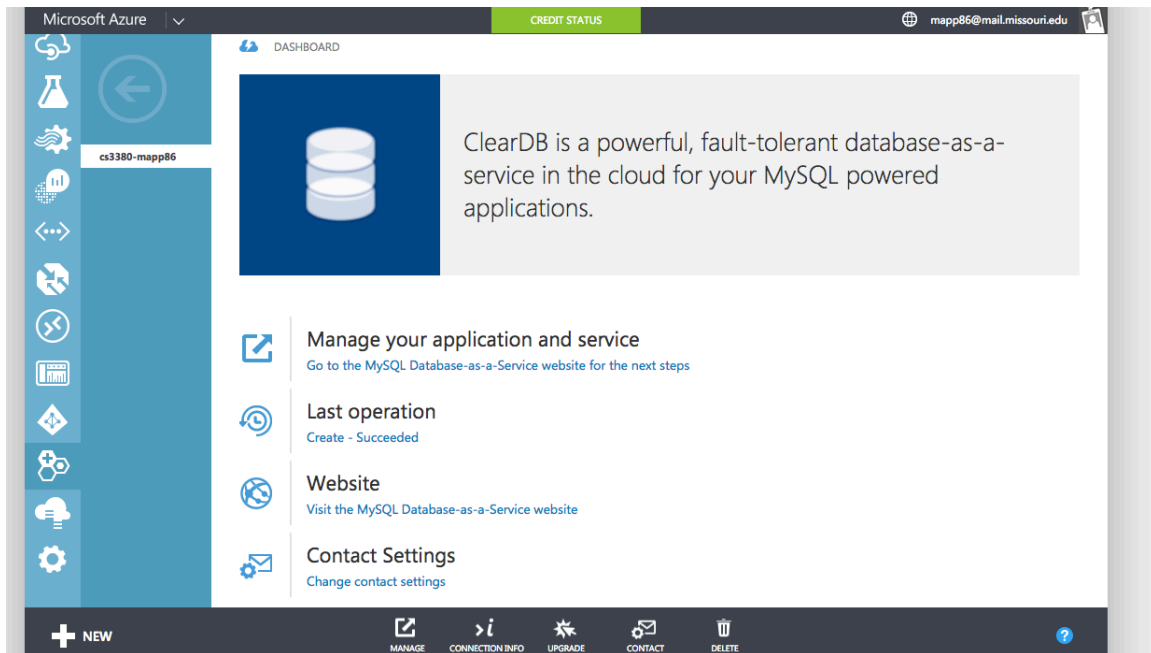
6. This should redirect you to a 3rd party site
7. Click the tab titled '**Endpoint Information**'
8. Find your database login credentials (Hostname, DB-username, password)
9. From your terminal run the following command:

   mysql –h HOSTNAME –u DBUSERNAME –p

   a. Replace HOSTNAME & DBUSERNAME with the corresponding information found on the ClearDB MySQL site.
10. You will be prompted for a password. This is the password displayed on the ClearDB MySQL site.

Grading Criteria

For this assignment, we will simply check that you have a VM created and it is accessible from the web via **cs3380-*YOURPAWPRINT*.cloudapp.net**