Lab 1

In the following we'll take you through launching an EC2 instance using the AWS Web Console.

1. AWS Console Login.

Log in with your AWS credentials. Leave the *MFA Token* option unchecked. If you haven't already signed in you'll be asked to change your password.

2. Switch to the Frankfurt Region.
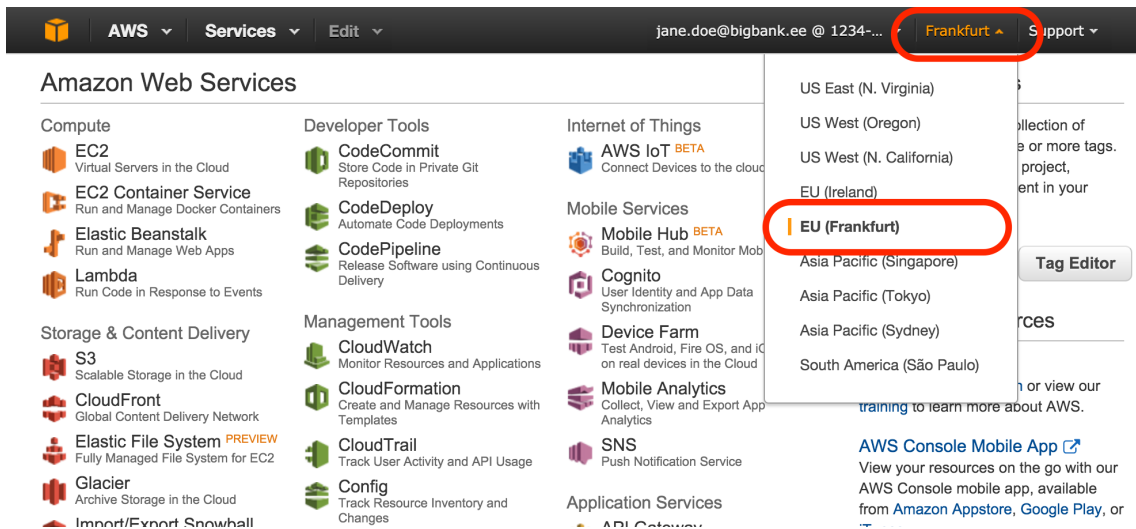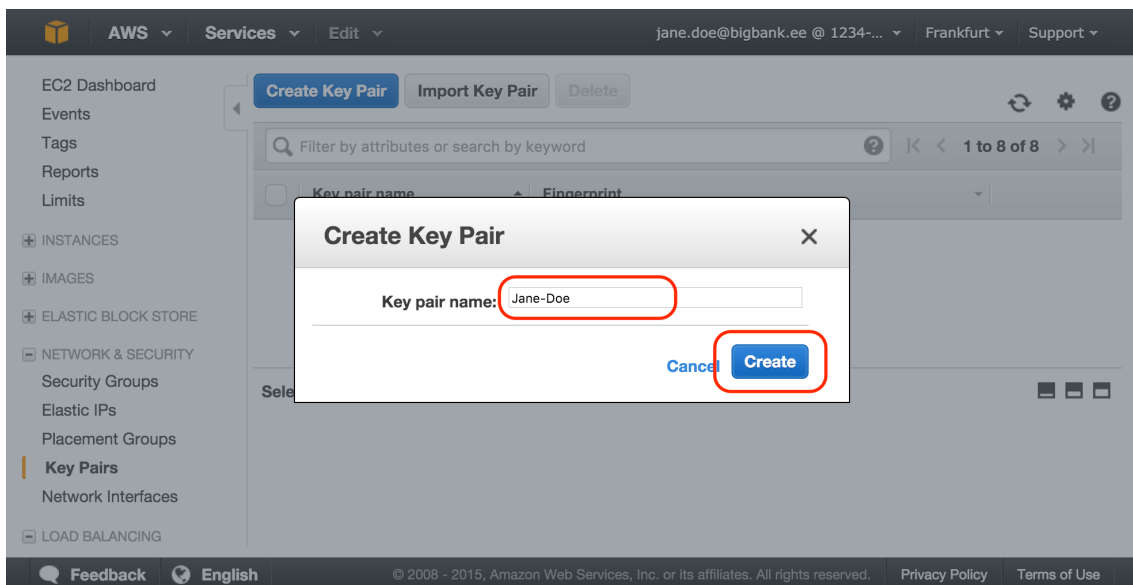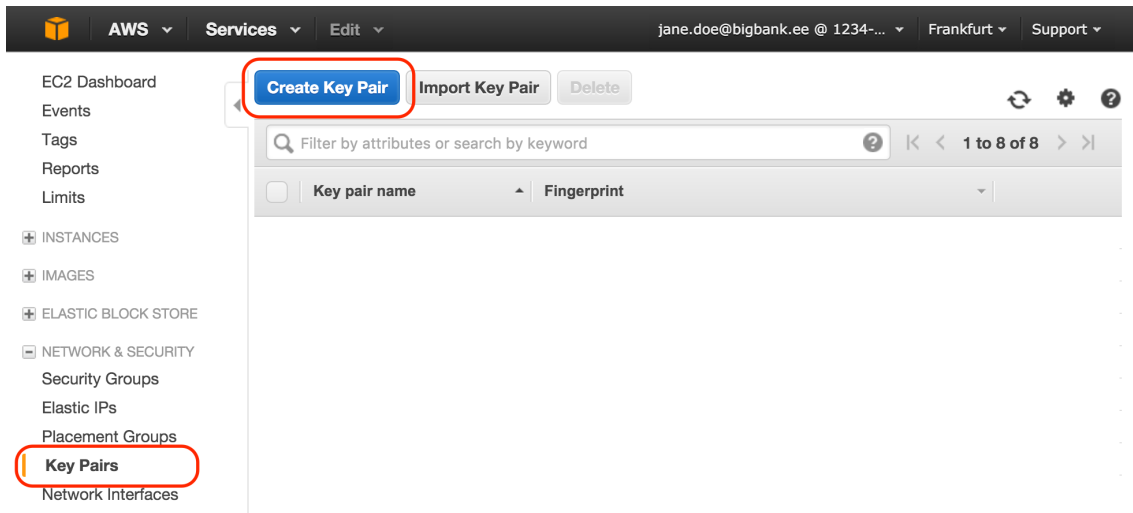

3. Choose EC2 from the list of Web Services. This takes you to the EC2 dashboard.
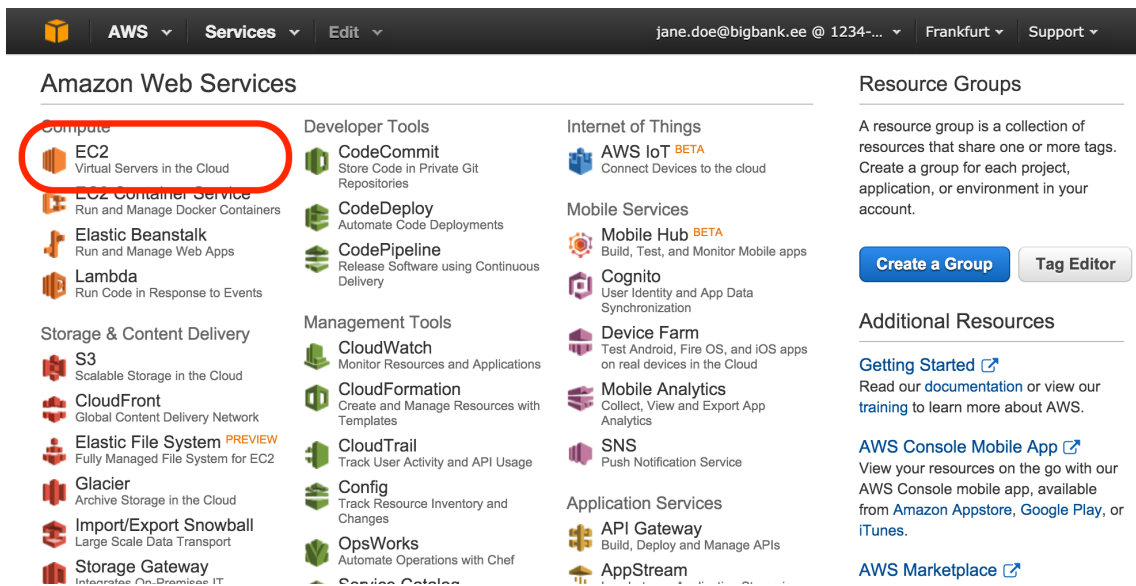
4. Create and download your Key Pair.

Choose `Key Pairs` from the menu and then click `Create Key Pair`. Choose a name for the Key Pair, we recommend you use your name. Once you hit the `Create` button a `.pem` file should be downloaded.

Note to Linux and OS X users that you have to change permissions on the Downloaded `.pem` file before you can use it with `ssh`. You need to run: `chmod 0600 /path/to/Jane-Doe.pem`.

Note to Windows users. You have to use the `PuTTYgen` program to convert the `.pem` file into a key format that PuTTY can use.

5. Return back to the EC2 Dashboard and choose `Launch Instance`. This starts the launch wizard process.

6. Choose the latest Amazon Linux AMI.

7. Choose the `t2.micro` instance type. And choose `Next: Configure Instance Details` to continue with the launch wizard.

8. Open the `Advanced Details` **section. Edit the** `User data` **field and enter the text from the file** `lab-1/user_data.txt`**. This example is basically a simple bash script that gets executed when the instance boots. Then again** `Next`**.**

9. We'll pretty much skip the storage settings i.e. go with the defaults. So just hit `Next`**.**

10. Set the name of the instance by creating the `Name` tag. Choose something you'll remember as the value as you need this to find your instance at a later point.

11. Choose the Security Group `Bootcamp-Security-Group`. Here you also have an opportunity to take a look at the rules that we have defined for this Security Group.

12. Now you have the opportunity to go over the configuration of your instance

13. Now this part is very important as you won't be able to access your instance if you don't get this right. Choose the Key Pair you created earlier from the list. And hit Launch.

14. Return to the EC2 Dashboard and navigate to the `In-stances` page. Use the search to find the instance you just created and select the instance. On the `Description` tab find the `Public DNS` of your instance.

Note that the instance boot might take a couple of minutes. You can see the `Instance State` on the page. Even if it has switched to `running` then the OS boot might still take a few more minutes. One way to check the progress is to choose from the `Actions` menu go to `Instance Settings` and then choose `Get System Log`. This is the OS console output.

15. Now SSH into you instance using the hostname and your Key Pair. The user name is `ec2-user`. So on Linux/OS X.

```
$ ssh -i /path/to/Jane-Doe.pem ec2-
user@ec2-52-28-24-189.eu-
central-1.compute.amazonaws.com
```
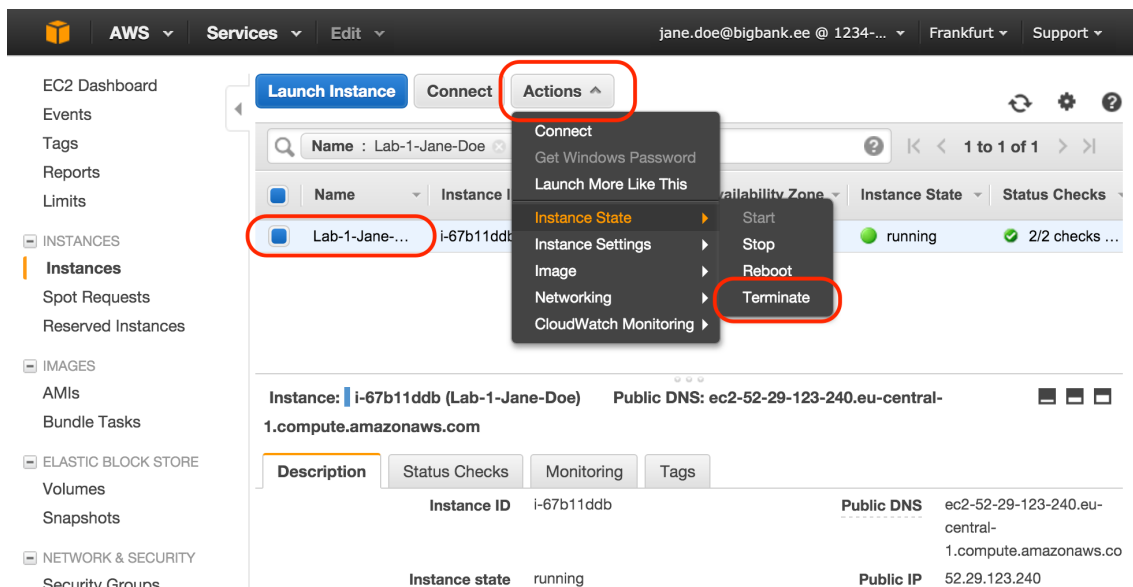
16. Run some commands.

One thing to check is that the User Data installation script worked as intended. So you could try making the `cowsay` cow say a few thing.

```
[ec2-user@ip-172-31-25-189 ~]$ echo 'I <3 AWS' |
cowsay
```

For extra points you could take a look at the [Instance Metadata and User Data](#)[1] page in AWS docs and try some commands. For example:

```
[ec2-user@ip-172-31-25-189 ~]$ curl http://
169.254.169.254/latest/meta-data/hostname
```

17. Return to the AWS Web Console windows. Use instructions from step 14. to find your instance if you have to. Select you instance and from the `Actions` menu choose `Terminate`.

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[1]   http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-instance-metadata.html