

CLOUD COMPUTING

Practical 3: AWS - EC2 and S3 Implementation

School of Computer Science
University College Dublin

To be Graded: YES

Description

The objective of this practical session is to provide experience with EC2 and S3 of the Amazon Cloud, AWS. In other words, you need to understand how all the modules fit together. It is important to explore the Amazon Cloud environment and make sure that you operate within the defined and desired boundaries.

Some Documentation

For a start, one makes sure that you know how to use these two systems.

1. [Elastic Computing Cloud \(EC2\)](#).
2. [Simple Storage Service \(S3\)](#).

Get the tools

You should have [Putty](#), but if not, then install it. Then you need the [AWS Eclipse plugin](#) (download the pdf manual too). You can also look at the '[getting started](#)' tutorial for Eclipse and Beanstalk.

You will need to enter your username and password for the http and https proxy in Eclipse if you have not already done so, or you will encounter errors.

Amazon provide [EC2 command line tools](#), which you should download so that you have them as back up in case these other methods do not work as expected. Download them and follow the instructions for installing them on your machine. You will find installation details in the [getting started guide](#), and you will find more details about using the tools in the [Developer Guide](#).

Lastly, you will need to read some of background material about AWS in [Programming Amazon Web Services](#), which is also available via [Safari Online](#). Although his book uses Ruby examples, he also provides a Java version of his code, which works quite well.

Part I: Practice with Amazon EC2 Linux Instances

The students use Amazon EC2 for launching, connecting to, and using a Linux instance. An instance is a virtual server in the AWS cloud. To complete this practice, the students should perform the following tasks:

1. Launch an Instance
2. Connect to Your Instance using PuTTY (or SSH client)
3. Clean Up Your Instance

After finishing every steps, students need to capture the screen to insert into your answer file. The screen pictures are seen as a proof for completing this practice.

Part II: Practice with Amazon Simple Storage Service (Amazon S3)

The students use Amazon S3 to store and retrieve data on the web. To complete this practice, the students should use the AWS Management Console to complete the following tasks:

1. Create a Bucket
2. Add an Object to a Bucket
3. View an Object
4. Move an Object
5. Delete an Object and Bucket

After finishing every steps, students need to capture the screen to insert into your answer file. The screen pictures are seen as a proof for completing this practice.

Submission Instructions

All submissions must be done via **Brightspace** with deadline 11th October 2021, 23:55. Your submission should consist of one file (PDF), which contains the answers, to the above questions. The submitted file should be named following the format:

COMPxxxxx_Surname_FirstName_StudentNo_ Practical03.pdf

Example: (***COMP47780_Smith_John_12345 _Practical03.pdf***)