Lab: Amazon Web Services

Introduction

In this lab, you are expected to complete labs related to some basic services of AWS.

Learning Outcomes

At the end of the week, students should be able to meet these learning outcomes:

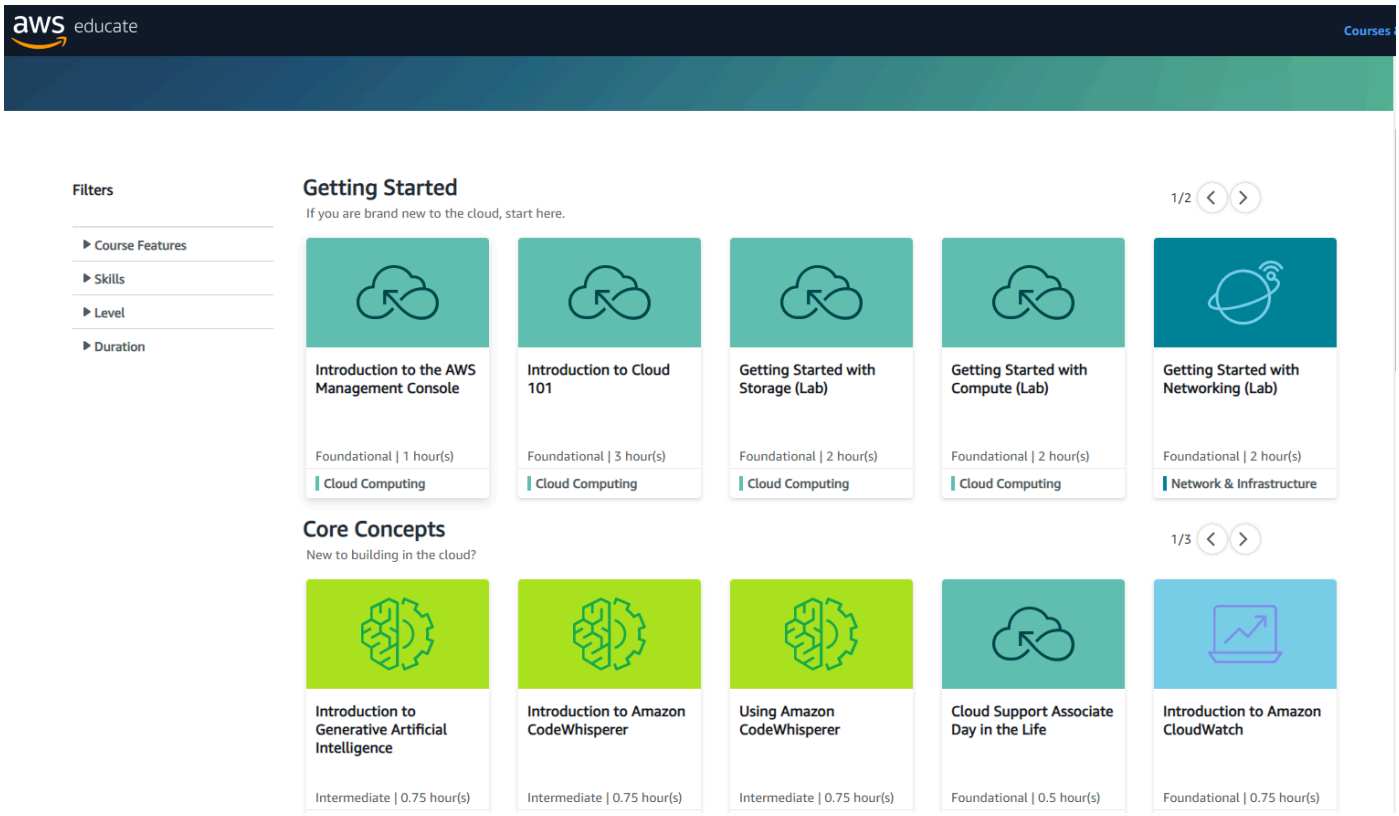
1. AWS basic services (Computing: EC2)
2. Deploy web applications to cloud services.

Tasks

Task 1:

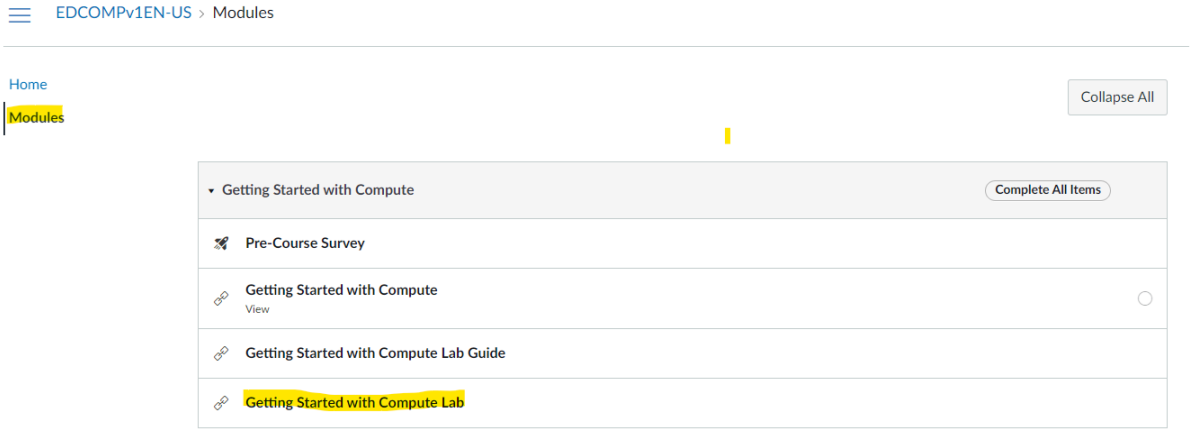
Register an **AWS Educate** (https://aws.amazon.com/education/awseducate/) account. AWS Educate is a free, self-paced online training resource and labs designed for beginners without having to create an Amazon account. We will use AWS Educate to enroll in free labs for training purposes.

After you register an **AWS Educate** account, you can jump to AWS Educate Courses (see the screenshot below).



You can enroll in **Introduce to Cloud 101**. There are several demos for AWS Core Services that will be beneficial for your assignment. You are expected to review these demos after class.

During the lab class, you are expected to enroll the **Getting Started with Compute (Lab)**.



Go to the **Modules** and then click on the **Getting Started with Compute Lab**. Then you are expected to follow the steps to finish the Lab. This is the **main task** for Week 4 Lab.

I recommend completing all the relevant labs (see the list below) as well. They will be beneficial in preparing for your assignment.

- Getting Started with Storage (Lab)
- Getting Started with Networking (Lab)
- Getting Started with Databases (Lab)
- Getting Started with Cloud Operations (Lab)
- Getting Started with Security (Lab)

If you do not have a group for the assignment, please find the group during the lab course. Use People => Group, you can sign up your group by yourself.

Task 2 (optional, AWS account needed):

(Optional. Note that this task needs AWS account (not Educate account), which may need credit card info when signing up). Register an AWS free account (https://aws.amazon.com/free) to start building on AWS using the Free Tier. You are excepted to know what service is free to use on Free Tier. We will use the AWS account for Task 2.

You are excepted to use **AWS Elastic Beanstalk** (https://aws.amazon.com/elasticbeanstalk/) to develop a sample .NET core API web application. The sample .NET web application can be downloaded on the GitHub link (https://github.com/lucasguo086/lab_sample_code). You can follow the **slides** (https://canvas.aut.ac.nz/courses/17335/files/5161212?wrap=1) (https://canvas.aut.ac.nz/courses/17335/files/5161212/download?download_frd=1) and deploy the sample web application to the cloud. The tutorial related to this part on AWS is out of date and please follow the steps on the slides. The environment is set up by **us-esat-1** region.

Attention: You should **terminate** your resource after the lab to avoid costs.

Task 3 (Option, use AUT MS account):

Deploy by Azure web app:

We created a guide for you if you want to use Azure instead of AWS to deploy a web app to the cloud. Lab_Azure_deploy.pdf (https://canvas.aut.ac.nz/courses/17335/files/5161225?wrap=1) (https://canvas.aut.ac.nz/courses/17335/files/5161225/download?download_frd=1)

(https://canvas.aut.ac.nz/courses/17335/modules/items/855929)

Week 3

Web service protocols and developing RESTful services