



Faculty of ICT, Mahidol University

Cloud Computing Project

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Network and Security

The instance has a security group that has rules for allowing HTTP, HTTPS and SSH inbound connections from all IP addresses to their respective standard ports.

This screenshot shows the AWS Management Console with the EC2 service selected. On the left, the navigation pane is open, showing various EC2 management options like Instances, Images, and Network & Security. The main content area displays the details of a security group named 'launch-wizard-1'. The 'Inbound rules' tab is selected, showing three rules:

Name	Security group rule...	IP version	Type	Protocol	Port range
-	sgr-0dae871d66d4dc4...	IPv4	HTTPS	TCP	443
-	sgr-0674254ccf9692d69	IPv4	HTTP	TCP	80
-	sgr-095a4f8e66b1a10e0	IPv4	SSH	TCP	22

This screenshot shows the AWS Management Console with the EC2 service selected. The navigation pane is identical to the previous screenshot. The main content area displays the details of an instance named 'Launch Wizard-1'. The 'Inbound rules' tab is selected, showing three rules:

Source	Type	Protocol	Port range	Description
0.0.0.0/0	HTTPS	TCP	443	https
0.0.0.0/0	HTTP	TCP	80	http
0.0.0.0/0	SSH	TCP	22	-

Instance Configurations

The instance is configured with the smallest instance size available to us for free, since we don't need much for our web server. To be more specific, we used Ubuntu 22.04 as an OS with t2.micro powered.

The screenshot shows the AWS CloudFormation console interface. On the left, there's a 'Quick Start' section with icons for various operating systems: Amazon Linux, macOS, Ubuntu, Windows, Red Hat, and SUSE. Below this, the 'Amazon Machine Image (AMI)' section displays the selected AMI: 'Ubuntu Server 22.04 LTS (HVM), SSD Volume Type' (ami-078c1149d8ad719a7). The 'Free tier eligible' dropdown is set to 'Yes'. The 'Description' field indicates it's a Canonical, Ubuntu, 22.04 LTS, amd64 jammy image build on 2023-09-19. Under 'Architecture', '64-bit (x86)' is selected. The 'AMI ID' is ami-078c1149d8ad719a7, and there's a 'Verified provider' badge. On the right, the 'Summary' section shows 'Number of instances' set to 1. It also lists the 'Software Image (AMI)', 'Virtual server type (instance type)', 'Firewall (security group)', and 'Storage (volumes)'. A message at the bottom states 'Free tier: In your first year'.

▼ Summary

Number of instances [Info](#)

1

[Software Image \(AMI\)](#)

Canonical, Ubuntu, 22.04 LTS, [...read more](#)

ami-078c1149d8ad719a7

[Virtual server type \(instance type\)](#)

t2.micro

[Firewall \(security group\)](#)

New security group

[Storage \(volumes\)](#)

1 volume(s) - 8 GiB

Deploy processes Video

The recorded video link of the processes of deploying our website to public cloud is here:

<https://drive.google.com/file/d/1uYrTrsEvEEuUS-7TPJYy4staEZe9AcBv/view?usp=sharing>

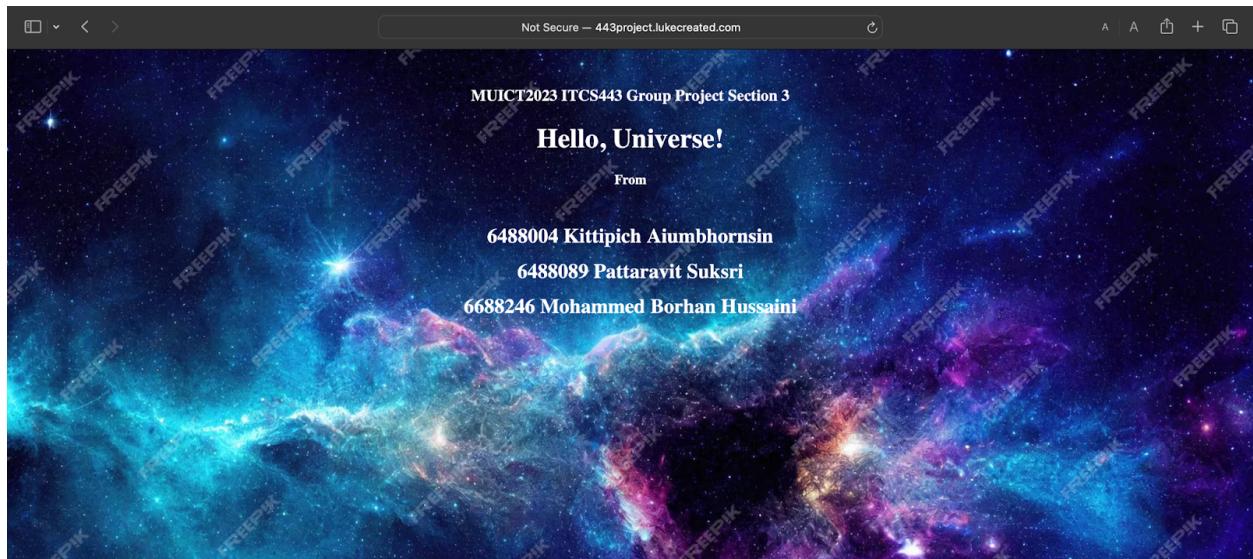
Publicly access information

Source code repository: <https://github.com/ngzh-luke/muict-443project>

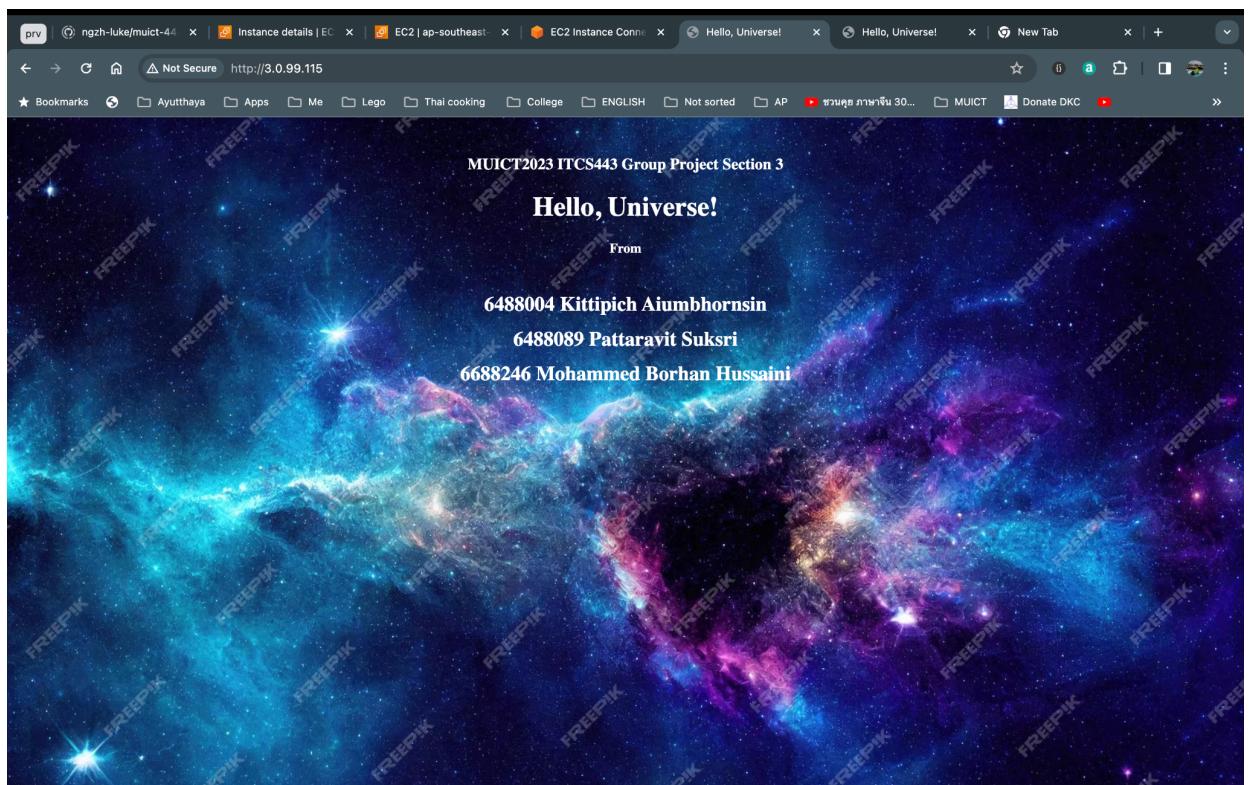
IP: 3.0.99.115

URL: <http://443project.lukecreated.com/>

Screenshot of the website accessed via URL:



Screenshot of the website accessed via IP address:



Reference and Citation

Apache2 Documentation: <https://httpd.apache.org/docs/>

AWS EC2 Documentation: <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/concepts.html>

AWS Security group configuration documentation:

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/working-with-security-groups.html#updating-security-group-rules>