Documentation of the Project-ICT171

Name: Ameer Muavia

Student ID: 35190575

Public IP: 13.211.167.137

Domain name: cricketingworld.com

Github Repo: https://github.com/aameer07/ICT171.git

Video Explainer:
https://drive.google.com/file/d/1kYF9ub7lrYXUq2vp1EKzdSvGCrh3m9ik/view

1. Introduction:

I have created this project by using Amazon EC2 from Amazon Web Services. I used Windows PowerShell to connect the EC2 instances to the server. I purchased the domain for the web from GoDaddy. It cost me $21 per year.

2. Launching Instance:

First of all, we need to launch the instance to start the project. To launch the instance, you should go to Amazon Web Services (AWS). Then create an account on AWS or log in if you already have. You can access that page by using this link:

https://signin.aws.amazon.com/signup?request_type=register

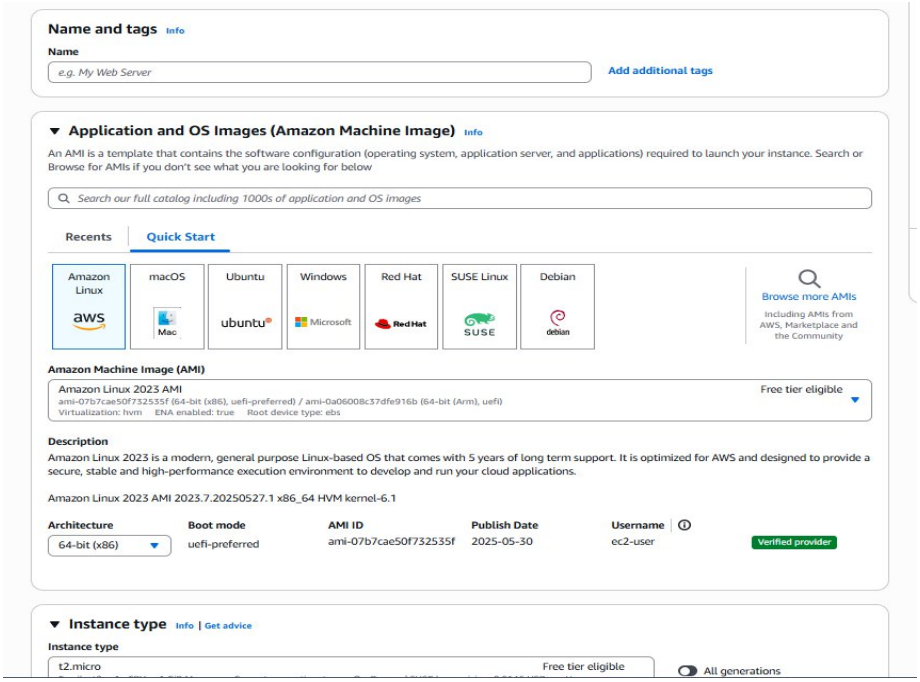
You should use your Murdoch ID to create an account. It will charge you $1 and you will all set to use it. On top, there is a search bar, go to that and search for 'EC2'. Go to EC2 and click the option 'instances' from the options given below. After that, you will see all your recently launched instances. If you want to launch a new instance, there will be an

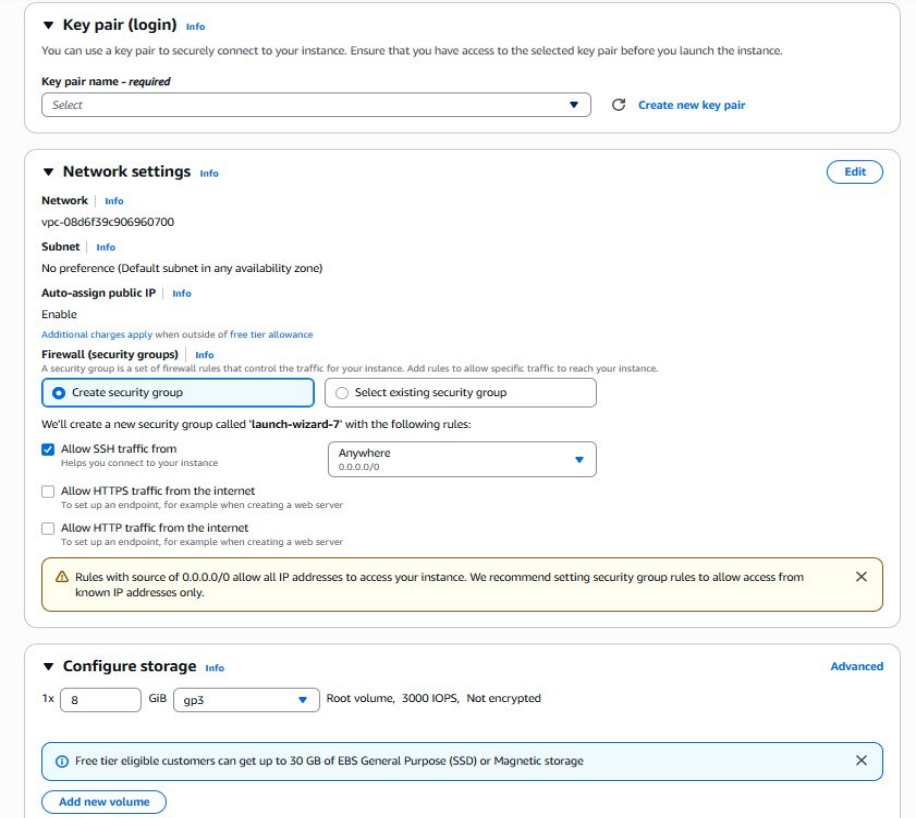
option on the top right corner in yellow colour displaying ‘Launch instances’, hit that button and you will see a new page.

Do the following actions on that page:

- Name and tags: Give a name to your web server.
- Application OS images: choose Ubuntu 24.04 LTS; it is free.
- Instance type: choose t2.micro, only it is be free.
- Key pair: Give a name to your key pair; it will be used to connect the instance. You can also select from recently created key pairs.
- Network setting: Allow all three options of HTTPS traffic.

After doing all the above settings, there is an option of ‘launch instance’ Hit that option, and the instance will be launched. You can see the status of your instance on the main instance page.



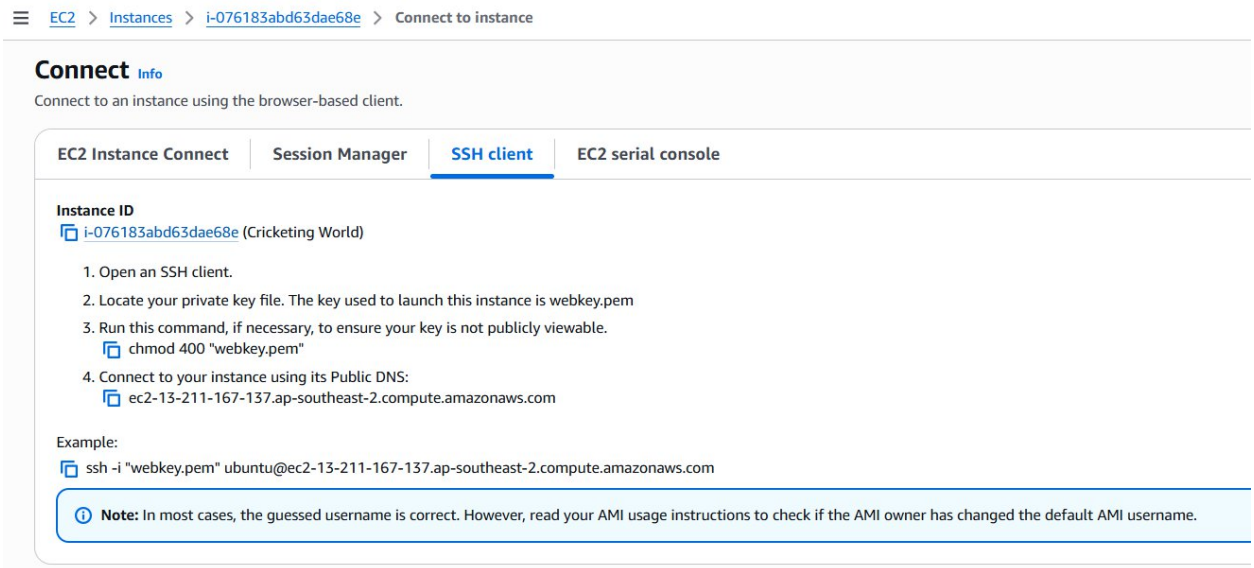


3. Web server installation:

Connect the instance:

- Hit the connect option from the instances page.
- Go to ‘SSH client’.
- Copy ‘example’ link.
- Open PowerShell and paste that link there.
- Update Apache using this command: sudo apt update.
- Install Apache using this command: sudo apt install apache2.

Visit the web server by using IP address and check whether it works. You will see a page on the web server showing ‘it works’.

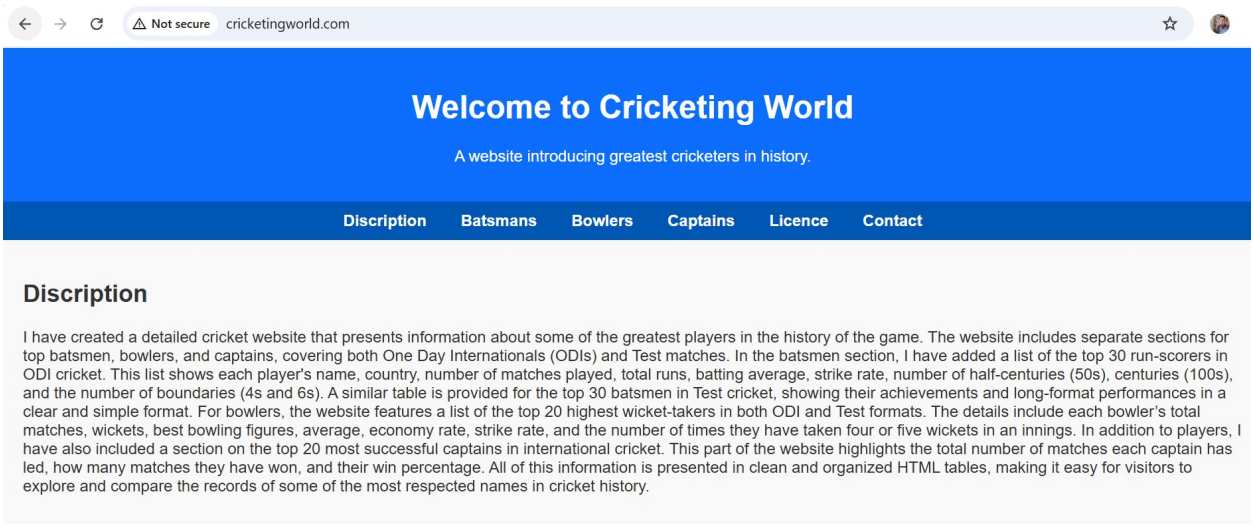



```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\DELL> cd downloads
PS C:\Users\DELL\downloads> ssh -i "webkey.pem" ubuntu@ec2-13-211-167-137.ap-southeast-2.compute.amazonaws.com
Welcome to Ubuntu 24.04.2 LTS (GNU/Linux 6.8.0-1024-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/pro

 System information as of Tue Jun 10 21:07:08 UTC 2025

  System load:  0.0               Processes:             109
  Usage of /:   35.7% of 6.71GB   Users logged in:       0
  Memory usage: 28%               IPv4 address for enX0: 172.31.8.118
  Swap usage:   0%

 * Ubuntu Pro delivers the most comprehensive open source security and
   compliance features.

   https://ubuntu.com/aws/pro

Expanded Security Maintenance for Applications is not enabled.

57 updates can be applied immediately.
15 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status


*** System restart required ***
Last login: Thu Jun  5 17:54:04 2025 from 1.146.142.120
ubuntu@ip-172-31-8-118: $ sudo apt update
Hit:1 http://ap-southeast-2.ec2.archive.ubuntu.com/ubuntu noble InRelease
Get:2 http://ap-southeast-2.ec2.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:3 http://ap-southeast-2.ec2.archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:4 http://ap-southeast-2.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [1118 kB]
Get:5 http://ap-southeast-2.ec2.archive.ubuntu.com/ubuntu noble-updates/main amd64 Components [161 kB]
Get:6 http://ap-southeast-2.ec2.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Packages [1078 kB]
```

Modification:

- Modify the server by using this command: sudo nano /var/www/html/index.html
- Write your own content and coding to modify your server.

Server after update:



4.DNS configuration:

Register domain:

- Go to GoDaddy: https://www.godaddy.com/
- Choose any name for the domain and search it in GoDaddy.
- You will see different offers for yearly or 3 years, or 5 years.
- Select the domain, purchase it, and you will be able to use it.

My domain name: cricketingworld.com.

Plan and cost: $21 for 1 year.

Connect the domain:

- In AWS, search networking and content delivery.
- Choose Route 53 and get started.

Create a hosted zone:

- Select ‘create hosted zone’ option and click get started.
- New page will open.
- Enter your domain name.
- Select public hosted zone.
- And click ‘create hosted zone’.

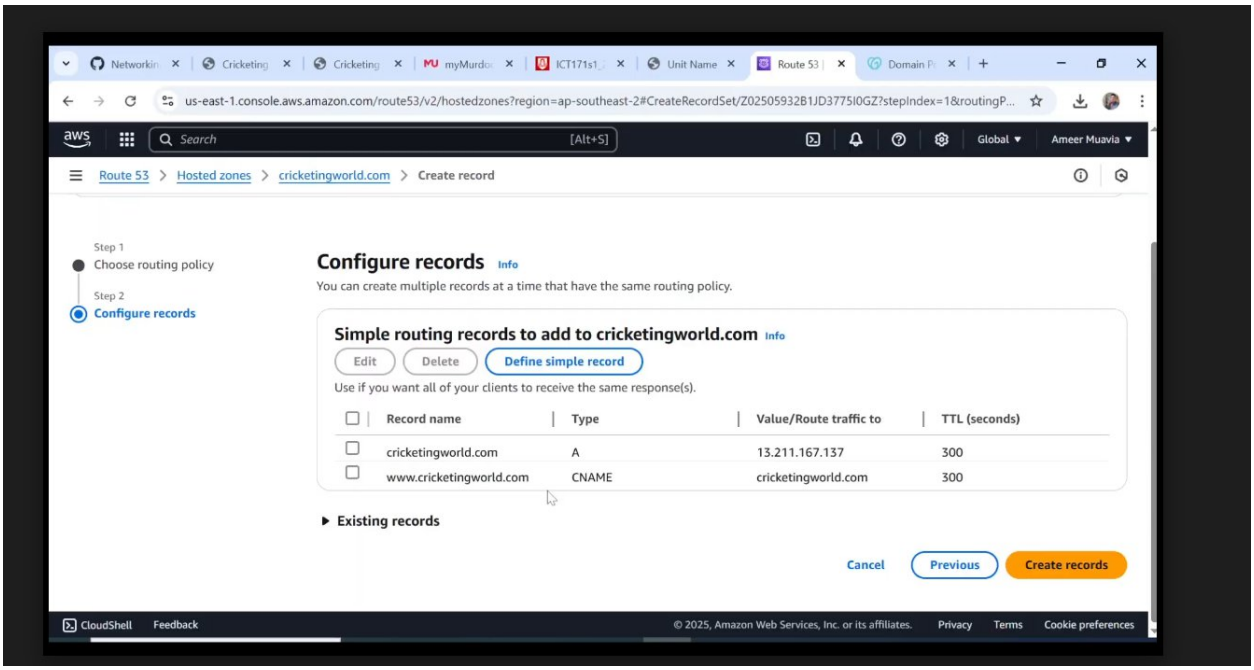
Create record:

- Go to ‘create record’.
- Click on ‘switch to wizard’.
- Choose ‘simple routing’ and click next.
- Click ‘define simple record’, enter your IP address.
- Again, go to ‘define simple record’, choose the option ‘cname’, and enter your domain name.
- Click on create record.

Change Nameservers:

- Go to GoDaddy, click ‘DNS’, click on ‘nameservers’.
- Go to ‘change nameservers’.
- Copy all your nameservers from the records and paste them here.
- Click save.

It will take 10 minutes, and your domain will be successfully connected to your web server. Then you will be able to access your website by using the domain name.



5. Video explainer

- Instance launching
- Connecting it to the web server from PowerShell.
- Modification into PowerShell and Python coding.
- Domain registration.
- Connecting the domain to the server.
- Git repository.

6. GitHub repository

- Name: ICT171
- Link to video explainer
- Link to web server
- Documentation of the project

7. References

AWS https://signin.aws.amazon.com/signup?request_type=register

Godaddy https://www.godaddy.com/

Github https://github.com/aameer07/ICT171.git