The web application in Assignment 2 is a world time zone converter, it based on my Assignment 1, with some minor modifications.

User guide

The index page of the website is a login page, there are two users for testing, one is admin, the other is user, passwords are not needed.

The default regions to convert of each user are different. If you do not want to login as a user, you can visit the time zone page as a guest as well.

On the time zone page, if you have logged in, there is welcome information at the top.

There are two drop-down lists to select regions: the origin region and the region where you want to convert to. The real-time is set to the default time, it can be changed.

When two regions and time is set, click Enter, then the origin time zone and time, converted time zone and time are shown under the Enter button. You can submit more queries if you like.

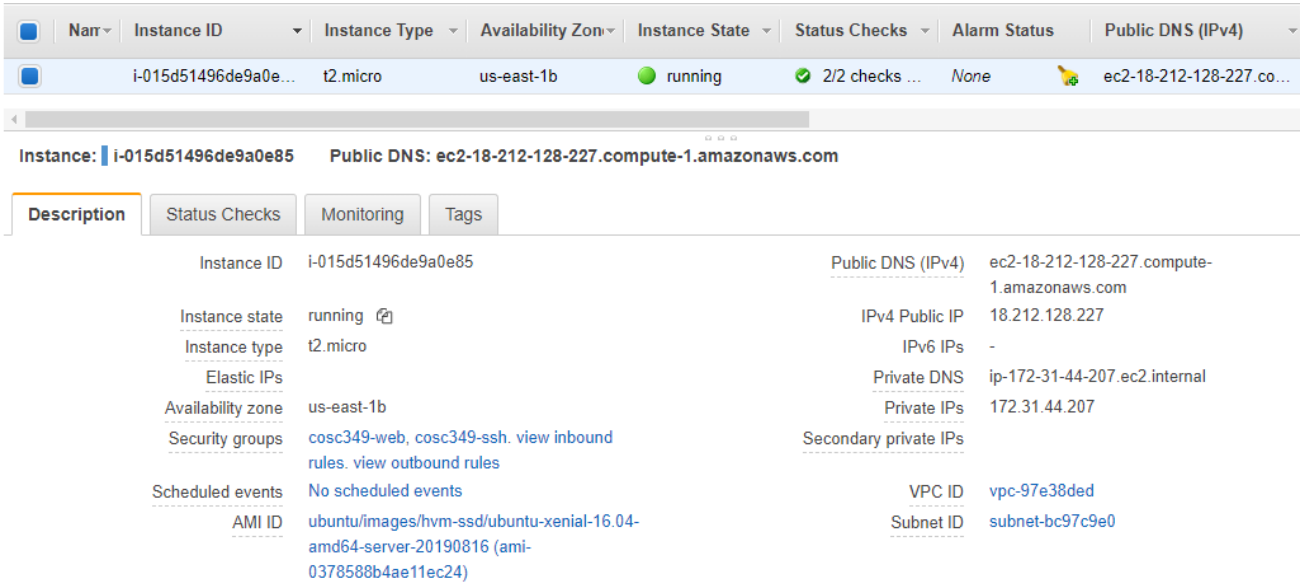
For testing, a table contains all the regions and time zones are shown at the bottom of the page.

Cloud services are being used

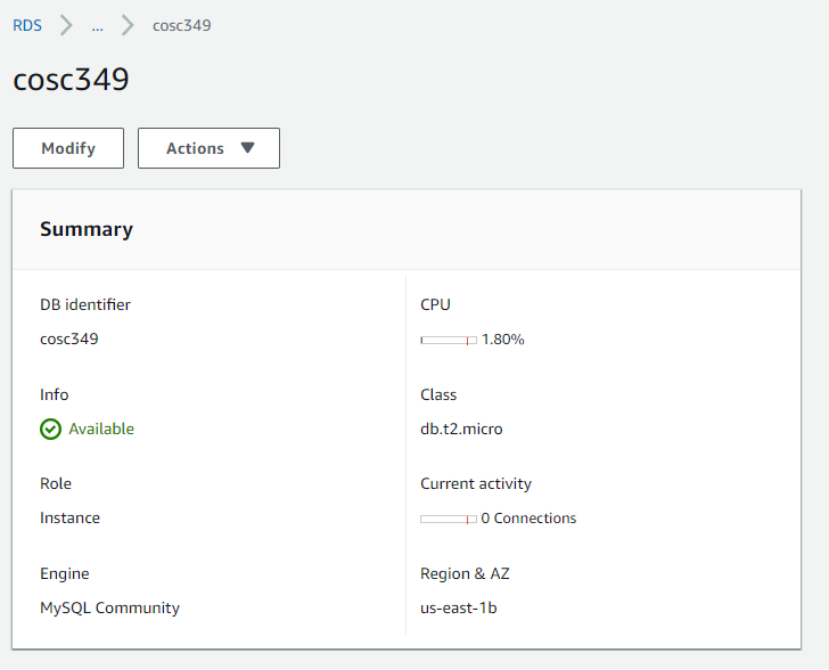
The application is running in the AWS and consists of three parts: the UI, which is web pages built on a web server, storage and a database. The original ideas to deploy the webserver on EC2 and stored files into S3 in web server on EC2 is covered in Lab 8 and 9, and I made some customizations for this assignment. For the details please refer to the files on GitHub. For the database, I built an instance on Amazon RDS and used the command line and MySQL to create tables and insert data.

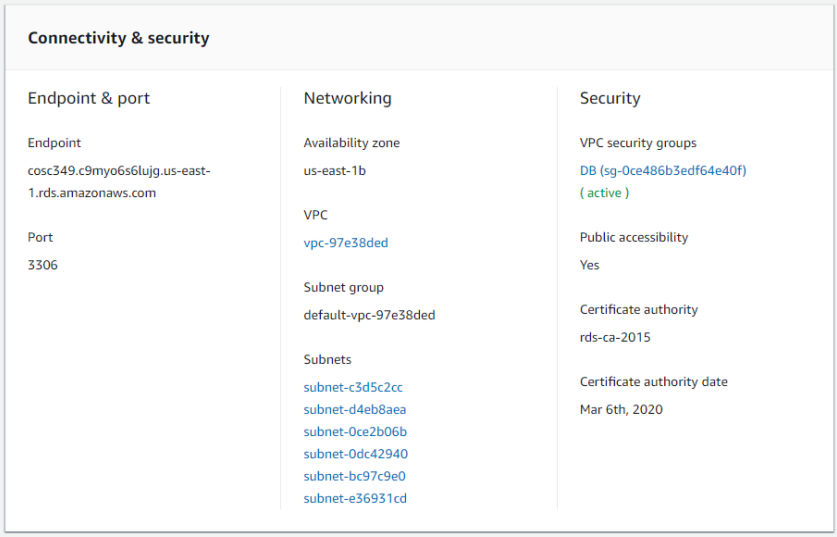
To reach the web application is simple, just visit: ec2-18-212-128-227.compute-1.amazonaws.com. Then follow the user guide above.

The whole application is built on the cloud, the URL of the web page shows that it is based on EC2 and here is the snapshot of the instance running on EC2.



The URL of the image on the website shows the image is stored in S3. (https://mahebei.s3.amazonaws.com/World_Time_Zones_Map.png) The screen-captures below show the database is run on RDS.





The web page shows media resources stored in the S3 and makes queries to connect and search the database in RDS to convert time between time zones.

Develop processes

The application is based on Assignment 1.

Vagrantfile is based on the materials in Lab 9 and I added web server and PHP installation and configuration to it.

Some minor modifications on the web page: connection to database changed to RDS, and an image stored in S3 is added.

Interaction of VM and APIs

Since my web application for Assignment 1 is consists of one webserver and two database servers, so in this assignment, there is only one VM built on EC2 and one database on RDS. I also build an S3 bucket to store an image.

The web pages on the web server show the image stored in S3, and make searching queries in database on RDS.