

# AWS Projects for beginners | Deploying End to End Application on AWS

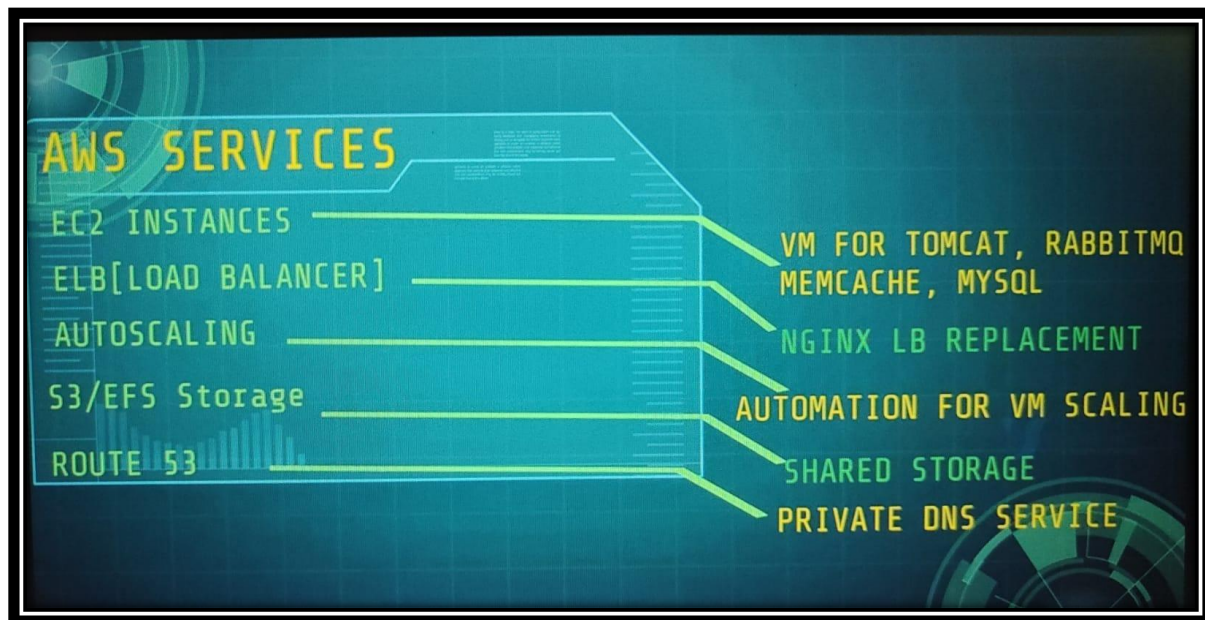
## LIFT AND SHIFT APPLICATION WORKLOAD ON AWS

### About the project

We will have multiple application services running on different virtual machine like Nginx, rabbitmq, tomcat, DNS etc that powers our application.

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### AWS services that we will use



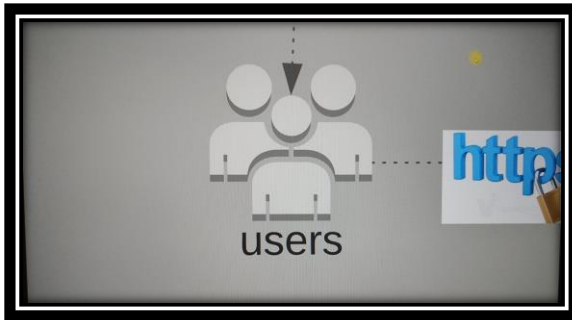
Few other services like IAM ,ACM, EBS will be used.

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# ARCHITECTURE OF OUR PROJECT

Our architectural design will be like this -

- Users will access our website by using a URL.

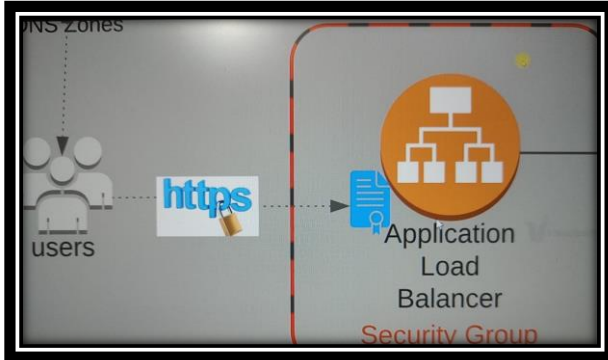


- and then that URL will be pointed to an endpoint ,this entry will be mentioned in Godaddy DNS.

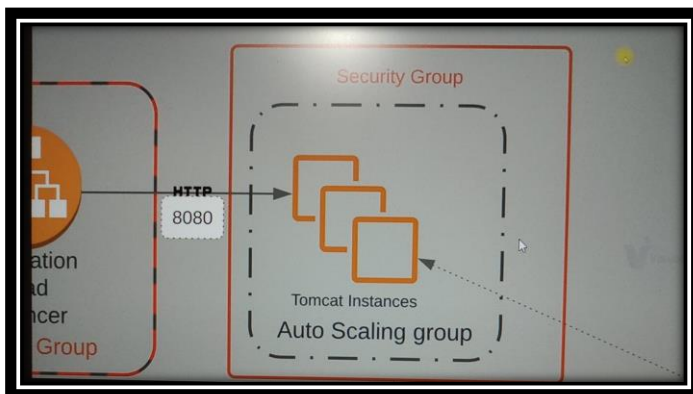


- User browsers or the app will use this endpoint then connect to the Load Balancer by using https.
- Certificate for https encryption will be mentioned in a ACM (Amazon certificate manager service)

- So user will access application Load Balancer endpoint. Our Load Balancer will be in a security group and will only allow https traffic and then our application Load Balancer will route the request to Tomcat instances.

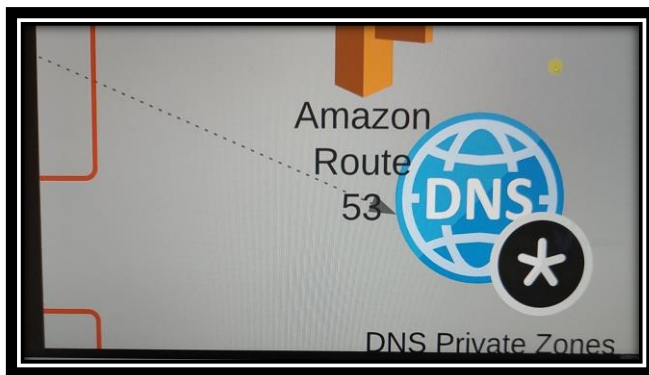


- Apache Tomcat service will be running on some set of ec2 instances which will be managed by our Auto scaling group so as per high or low load this instances capacity will be scaled out or scaled in.

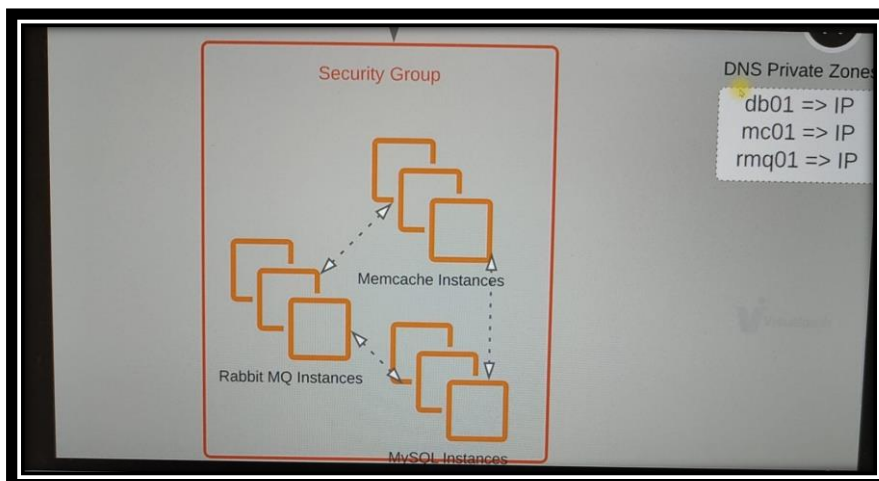


- This EC2 instance where Tomcat is running will be in a separate security group and will only allow traffic on port 8080 only from load balancers.

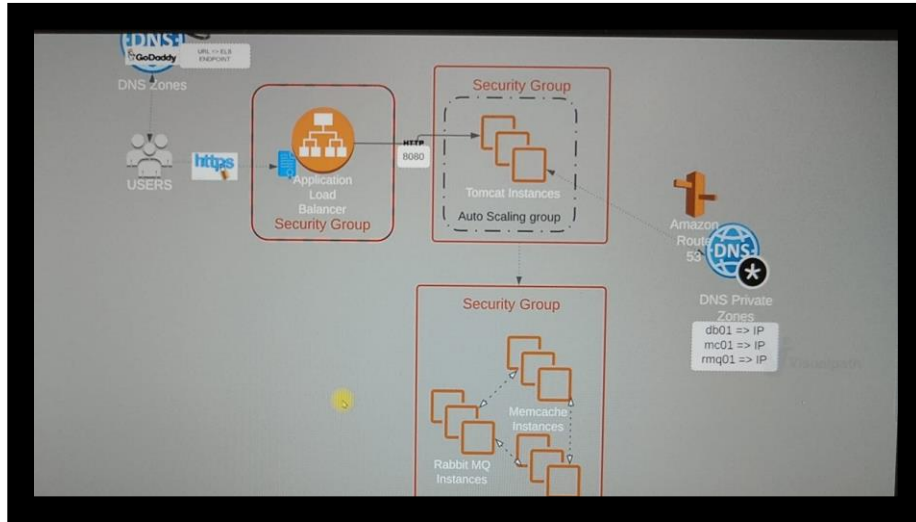
- We know our application Vprofile application sits on Tomcat instances and our application needs backend servers which are mySQL, memcache and rabbitMQ.
- Information of backend server IP address will be mentioned in a route 53 private DNS zone so Tomcat instances will access backend server with the name which are mentioned in route 53 private DNS with the private IP address of backend servers.



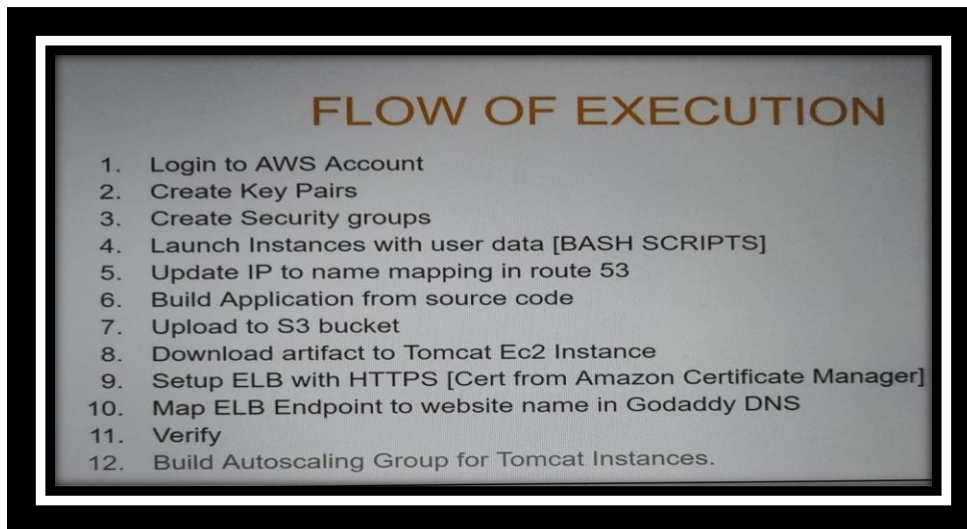
- These backend Ec2 instances which will be running rabbitMQ , memcache will be in a separate security group.



So the overall architectural design of our project is



We will also use Amazon S3 bucket to store our software artifact.



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Here is the github repo link of the Multitier web application ---

<https://github.com/devopshydclub/vprofile-project/tree/aws-LiftAndShift>

