**AXE-Throw-Project:**

**Architecture:**

Diagram

Description automatically generated

**Cost Estimation:**

Refer Link: <https://calculator.aws/#/addService>

Table

Description automatically generated

**Meeting: 18-10-2022, 3:00 PM**

AXE-Client Aswin torbe.

* Okay procced to set up infra
* Domain he will discuss their IT Team and buy Domain then will give us.
* For the Feature Repos where you can maintain? he will be expecting bitbucket.
* What are the build tools used for the future? Jenkins.

**Internal Meeting1:**

* Sandeep & Raunak & Pratik & Abhijit Mulik.
* Raunak said Hosting axe app into s3.

**Internal Meeting 2: 21-10-2022, 1:00 PM**

Raunak said:

* We must buy SSL certificate.
* This project will long term.
* We no need go for Nginx proxy

**Require Service:**

* VPC
* 2 Ec2 Instance
* 1 Load Balancer
* Route 53 hosted zones
* 1 Domain
* 1 ACM

Implement start:

1. Bastion/ Jump creation –**Done**
2. Instance –in private- **Done**
3. ALB -**Done**
4. Status healthy –**Done**
5. Reaching to web server (nginx).
6. Port open http only –working

Application infra pending items :

1. ACM/SSL.
2. Static web hosting pending for S3.
3. Domain provided by team to host and make it https access, <https://axethrowproject.dev>
4. nginx proxy

**Infra create:**

Step1: Create Private subnet and attach to Nat gate way in default VPC.

* Create a private subnet in default VPC
* Go to VPC
* Select subnets and then click to create a subnet.
* Select the VPC
* Enter the subnet name
* Select the subnet range how may IP you want specified that private subnets.
* Choose available zone 1a
* Create

Step2: Create Bastion in public

Step3: Take AMI for exciting AXE ec2 instance and launch private subnets

Step3: Copy the pem key local to bastion server

$ scp -i pem key pem key ec2-user@bastion-server-public-key:/tmp

Step4: log in to bastion server then login to Private ec2 instance.

Step 5: create a security group for ALB (listen rules is 80 any ware).

Step 6: create a Target group and attach the axe ec2 instance.

Step7: create ALB and attach the Target group.

**Step2: Create a hosted zone with domain Name and update the name servers into Domain provider.**

* Route 53
* Create a hosted zone
* Domain Name: your domain name
* Check the box public hosted zones and click the create

**Once Hosted zone create it will give the 4-name server collect those and save safe location. And go to the Domain provider portal domain**

* DNS setting
* Here looks the Name server tab
* Copy the route 53 4-name server here

(It will take 24 to 48 hours) or immediately.

**Create record with your ALB endpoint to Your domain name.**

* Route 53
* Hosted zone
* Click the create record
* Record name: Your Domain name
* Record type: CName
* Value: your ALB end point

Now you can access your application with your domain name only http.

**Step3: Create ACM Certificate:**

* Go to certificate manager
* Choose public or private
* Check the check box
* Request a public certificate
* Domain: copy our domain name (\*.domain name)
* Check the DNS validation check box.
* Review and click the certificate request.
* Once it creates open the certificate
* Drop down click the Create records in Route 53 and the click the create record.

**Step4: Update ACM into LB:**

Make sure LB listeners https:443 open.

* Go to LB listeners
* Add listeners
* Protocol 🡺https
* Por 🡺 443
* Add action check box click the forward
* Select the target group
* Select the ssl certificate and then click the add button.

Add the ACM certificate into 80 listeners.

* Select the 80 listeners click the view/edit rules
* Select the + symbol and click the insert rule
* Add condition 🡺 Host header
* Value 🡺 your record name and click the tick mark
* Add condition 🡺 redirect to 🡺 give the 443 port and click tick mark and save it.