**2 Tier-Architecture**

1. Launch database from RDS service and do configuration.
2. Wait until DB becomes available.
3. Then launch application server from EC2 service where we are going to deploy our application and DB
4. In that server install tomcat Maria dB and java.
   1. apt install openjdk-11-jre-headless && curl –O <https://dlcdn.apache.org/tomcat/tomcat-9/v9.0.85/bin/apache-tomcat-9.0.85.tar.gz>} && apt install mariadb-server –y .
   2. tar –xvzf apache-tomcat-9.0.85.tar.gz –C /opt
   3. Login to maria db database using mysql –h {RDS Endpoint} –u (username) –p
   4. Create database and table and exit
   5. Cd /opt/apache-tomcat-9.0.85
   6. Make changes in below files

cd /opt/apache-tomcat-8.5.88/webapps

curl -O https://s3-us-west-2.amazonaws.com/studentapi-cit/student.war

cd ..

cd /opt/apache-tomcat-8.5.88/lib

curl -O https://s3-us-west-2.amazonaws.com/studentapi-cit/mysql-connector.jar

cd ..

cd /opt/apache-tomcat-8.5.88/conf

vim context.xml

#add the following content in this file

<Resource name="jdbc/TestDB" auth="Container" type="javax.sql.DataSource"

maxTotal="500" maxIdle="30" maxWaitMillis="1000"

username="mydblogin" password="mydbpassword" driverClassName="com.mysql.jdbc.Driver"

url="jdbc:mysql://RDS database endpoint:3306/mysql database name?useUnicode=yes&amp;characterEncoding=utf8"/>

cd bin

./catalina.sh start

**REVERSEPROXY**

1. Launch another instance and install nginx service.
2. Cd /etc/nginx/sites-enabled
3. Vim default

Make this change is default file

In

Server **{ listen 80 ;**

**server\_name 35.173.238.21; #this is nginx-server ip**

}

In

location **/student {**

**proxy\_pass** [**http://184.73.41.83:8080/student**](http://184.73.41.83:8080/student)**; #this is tomcat server ip and path**

**proxy\_set\_header Host $host;**

**proxy\_set\_header X-Real-IP $remote\_addr;**

**proxy\_set\_header X-Forwarded-For $proxy\_add\_x\_forwarded\_for;**

**proxy\_set\_header X-Forwarded-Proto $scheme;**

}

* **Now make changes in tomcat server**
* Cd /opt/apache…/conf
* Vim server.xml
* Add tomcat server ip in connector section

<Connector port="8080" protocol="HTTP/1.1"

connectionTimeout="20000" redirectPort="8443" **address="184.73.41.83:8080"**

maxParameterCount="1000 />

*{NOTE:-only bold fonts have to be changed or add it to ur files.}*

***Then Hit nginx ip “http://35.173.238.21/student/”and it will run project deployed on tomcat server***