# AWS PAAS/SAAS PROJECT

This project is a simple multi-tier web application stack built using PAAS/SAAS services on AWS cloud.In this project we have used Tomcat (frontend service) and MySQL,Memcached,RabbitMQ (backend services)

Benefits of Building the application on AWS are:

- Scalability
- Pay as you go (this eliminates all the upfront cost for running the application)
- full managed services for running the application
- Reduced Infrastructure Management Overhead
- Rapid Application Deployment
- Automatic Updates and Patch Management

DIAGRAM WORKFLOW
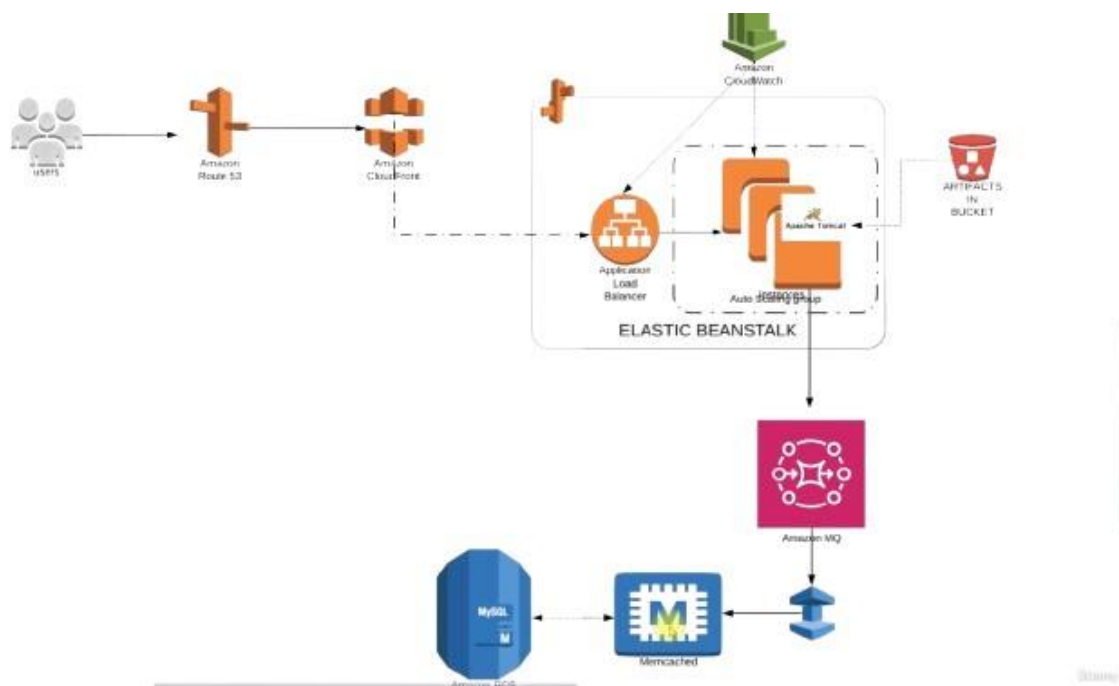
AWS SERVICES USED:

- Elastic Beanstalk (for frontend application - Tomcat)
- S3 (storing the artifact)
- Elasticache (for Memcached)

- ActiveMQ (for RabbitMQ)
- RDS (for mysql database)
- CloudFront (for content delivery network)

FLOW OF EXECUTION

- Login to AWS account.
- Create Key Pair for Beanstalk instance login.
- Create Security Group for backend services (RDS,Elasticache,ActiveMQ)
- Create RDS,Elasticache (Memcached) and ActiveMQ (RabbitMQ) services in AWS.
- Create Elastic beanstalk Environment
- Update SG of backend to allow traffic from Bean SG
- Update SG of backend to allow internal traffic
- Launch EC2-instance for DB Initializing
- Login to the instance and initialize RDS DB
- Change healthcheck on beanstalk to /login
- Add 443 https listener to ELB
- Build artifact from Backend Information.
- Deploy Artifact to Beanstalk.
- Create CloudFront with SSL certificate
- Create a CNAME record in godaddy for the elastic beanstalk endpoint
- Verify the website.