**Services used for application:**

* **EC2 (Elastic Cloud Compute):** We can use Amazon EC2 instances to deploy the applications. As Amazon doesn’t provide any services for MongoDB so can install the MongoDB in Amazon EC2 or we can use third party services such as Mongo Lab which provides a MongoDB service that runs on AWS.
* **S3 (Simple storage service):** Amazon S3 can be used to store and retrieve any amount of data.
* **VPC (Virtual Private Cloud):** This would be required if we want to have any firewalls, access to the internet, specific IP address range, route tables or gateways as per the requirement of applications. Also this would be needed to have inter-connectivity between resources.
* **ELB (Elastic Load Balancing):** ELB to distribute incoming application traffic and for scaling the resources. Load balancing divides the amount of work that a computer has to do among multiple computer to serve faster.
* **High Availability (HA):** 
  + **Health check** would be required in order to get High Availability for application. ELB performs a health check to ensure an instance is still running before sending traffic to it. When an instance fails or is unhealthy, ELB routes traffic to the remaining healthy EC2 instances. If all EC2 instances in a particular availability zone are unhealthy, ELB can route traffic to other availability zones until the original instances restore to a healthy state.
  + **Auto-Scaling** feature guarantees to have enough EC2 instances running behind an ELB. We can set Auto Scaling conditions, and when a condition is met, a new EC2 instance can spin up to meet the desired minimum. We can also set a condition to spin up new EC2 instances to reduce latency.
* **Cloud Formation:** To automate the resource creation of AWS we can use Cloud Formation. We can create our own templates to describe the AWS resources, and any associated dependencies or runtime parameters, required to run your application. We don’t need to figure out the order for provisioning AWS services or the subtleties of making those dependencies work. We are using Cloud formation for creating custom template for Mongo DB as we don’t have any RDS instance for Mongo db. The custom template also take care of high availability and replication.
* **IAM (Identity and access management):** AWS Identity and Access Management (IAM) can be used for security and to restrict the permissions. It enables you to securely control access to AWS services and resources for your users. Using IAM, you can create and manage AWS users and groups, and use permissions to allow and deny their access to AWS resources.