



# Assessment 1

## Notes Application

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## 1. Introduction:

Notes application is a 3 tier application that helps to create notes. There is a frontend on which you can add the daily notes for you and backend will process and store it in the RDS(MySQL).

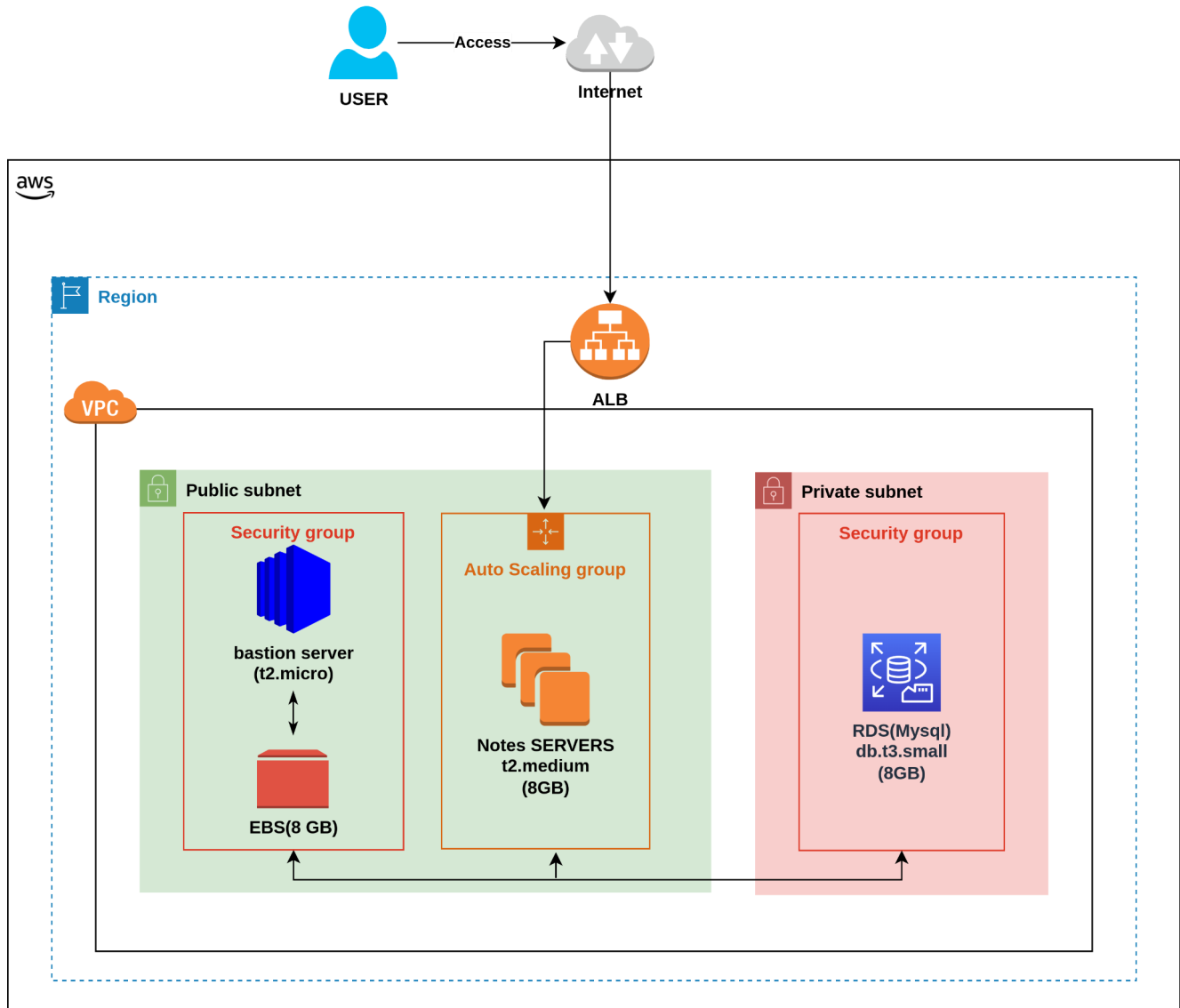
## 2. Objective:

Since the application is to be hosted on AWS Cloud, the objective of this document is to outline the solution architectures that can be proposed for Notes Application.

### 3. AWS Solution Architecture:

#### 3.1. Architecture.

##### 3.1.1. Architecture Diagram



##### 3.1.2. Cost Estimation

S.No	Service	Configuration	Cost(\$)/Month
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1	Elastic Cloud Compute(bastion)	t2.micro (gp2 8GB)	9.11
2	Elastic Cloud Compute(notes Server)	t2.small(gp2 8GB)	17.43
3	Relational Database System(Mysql)	t3.small (gp2 20GB)	76.14
5	s3	Depend on Usage	Depend on Usage
<b>TOTAL</b>			

**Note:** Cost will be Increased accordingly in case of any instances launched by the autoscaling group.

### 3.1.3. AWS Services

#### a. Elastic Cloud Compute(EC2)

Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instance types comprise varying combinations of CPU, memory, storage, and networking capacity and give you the flexibility to choose the appropriate mix of resources for your applications. It is a scalable, user-configurable compute service that supports multiple methods for encrypting data at rest.

#### b. Relational Database System(RDS)

Amazon Relational Database Service (Amazon RDS) makes it easy to set up, operate, and scale a relational database in the cloud.

#### c. Auto Scaling Group

An Auto Scaling group contains a collection of Amazon EC2 instances that are treated as a logical grouping for the purposes of automatic scaling and management. An Auto Scaling group also enables you to use Amazon EC2 Auto Scaling features such as health check replacements and scaling policies.

#### d. Route 53

Amazon Route 53 is a highly available and scalable cloud Domain Name System (DNS) web service.

**e. Elastic Load Balancer(ELB)**

Elastic Load Balancing automatically distributes incoming application traffic across multiple targets, such as Amazon EC2 instances, containers, IP addresses, and Lambda functions. It can handle the varying load of your application traffic in a single Availability Zone or across multiple Availability Zones.

**f. S3 Bucket**

Amazon S3 has a simple web services interface that you can use to store and retrieve any amount of data, at any time, from anywhere on the web. It gives any developer access to the same highly scalable, reliable, fast, and inexpensive data storage infrastructure that Amazon uses to run its own global network of websites