**Project Name: Systematic Ventures**

**Project Scope:** Continuous deployment with AWS Code pipeline along with code build and code deploy. Every time pipeline is triggered an Amazon Elastic Container Service (ECS) is deployed using AWS Fargate, by using Farget you don't need to manage servers, handle capacity planning, or isolate container workloads for security. Fargate handles the infrastructure management aspects of your workload. You can schedule the placement of your containers across your cluster based on your resource needs, and availability requirements.

ECS manages [containers](https://www.techtarget.com/searchitoperations/definition/container-containerization-or-container-based-virtualization) and lets developers run applications in the cloud without having to configure an environment for the code to run in. It enables developers with AWS accounts to deploy and manage scalable applications that run on groups of servers called [clusters](https://searchdomino.techtarget.com/definition/application-clustering) through [API](https://www.techtarget.com/searchapparchitecture/definition/application-program-interface-API) calls and [task](https://www.techtarget.com/whatis/definition/task) definitions. Amazon ECS is a scalable service accessible through the [AWS Management Console](https://www.techtarget.com/searchaws/definition/AWS-Management-Console).

For Frontend deployment used cloudfront for code deploy with s3 bucket.

**Infrastructure:**  Manual deployed by using AWS console.

**Services used:**

1. Virtual private cloud (VPC) for the complete Infra of Systematic-Ventures
2. Mongodb to handle database through VPC peering
3. EC2 instances to access ECS containers
4. Elastic container registry (ECR) to store docker images
5. Application Load balancers to handle traffic of applications
6. Security groups for allowing particular Ips
7. ECS task definition
8. ECS Clusters for micro services
9. Aws CloudFront and S3 bucket for static frontend hosting
10. WAF as a security tool
11. CloudFront for frontend web
12. Codepipeline with code build and code deploy
13. IAM roles and policies for services
14. Datadog for getting ECS containers logs
15. Route 53 for managing domains
16. Elastic cache for managing cache