Cmpe 48A Final

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Project

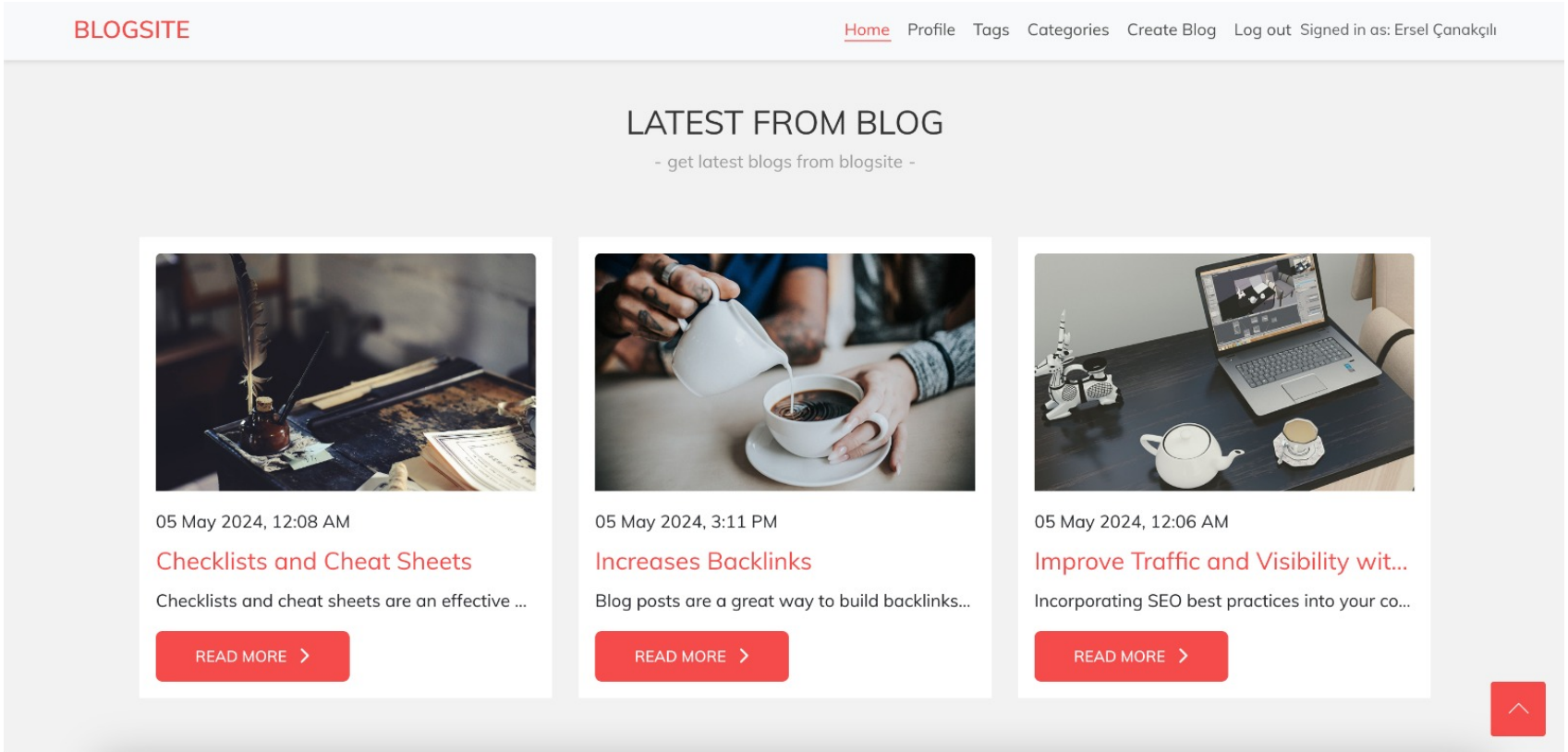
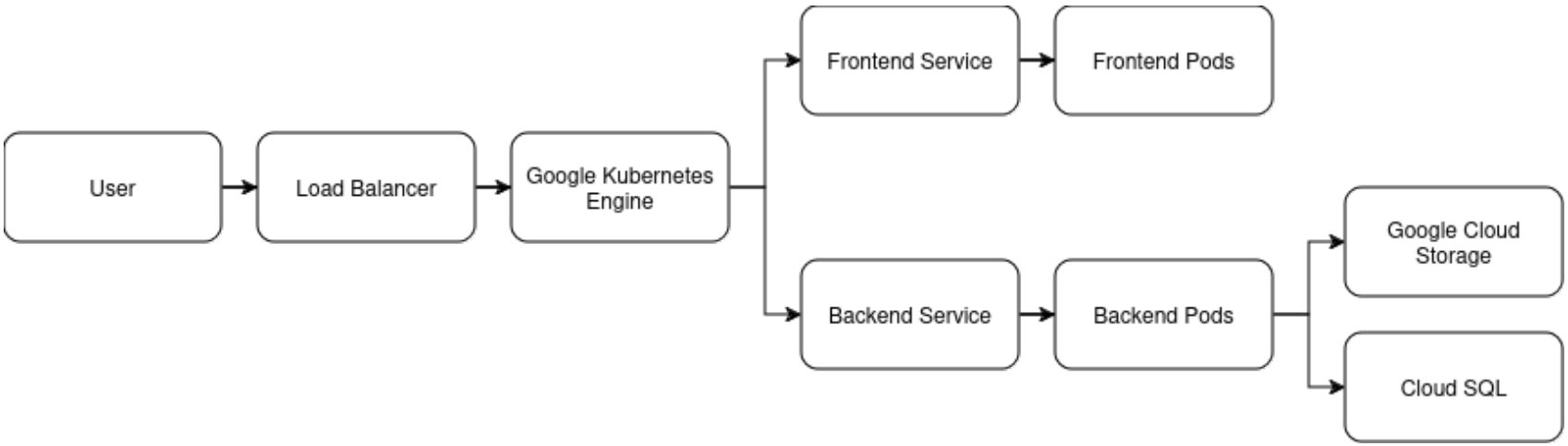
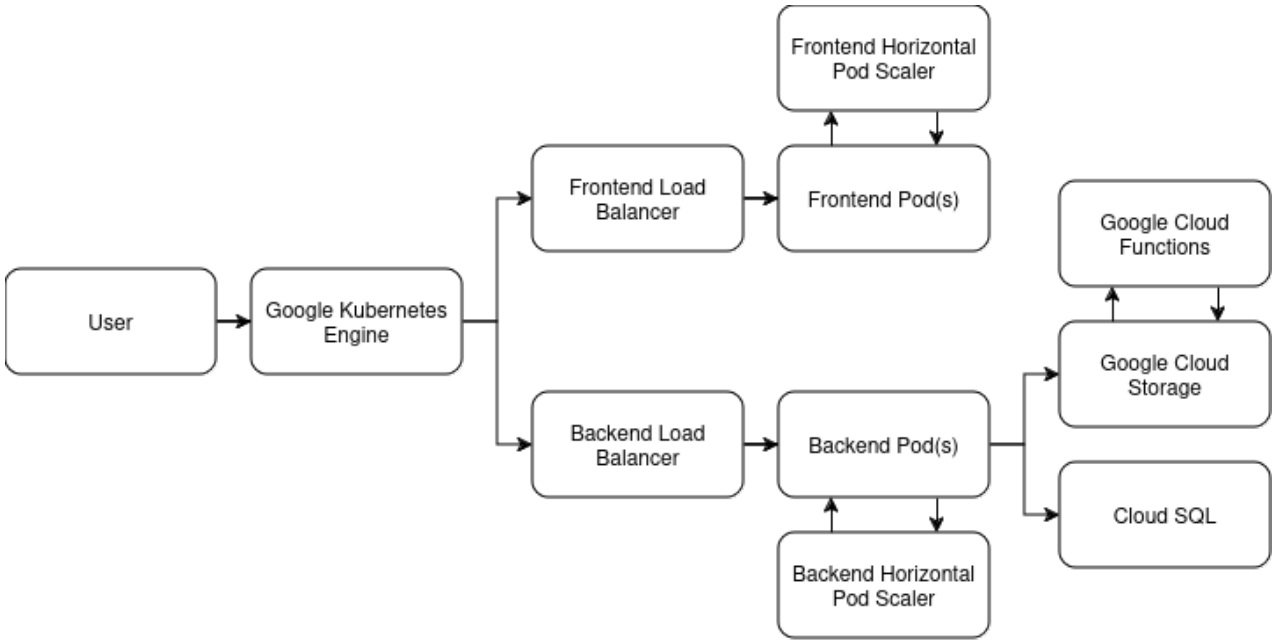


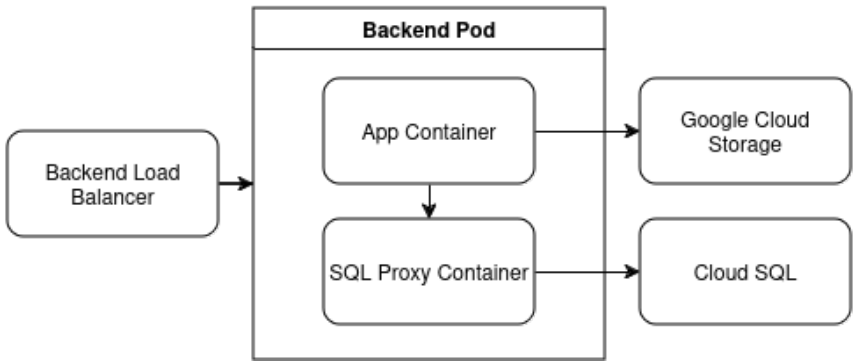
Figure: BlogSite, an advanced blogging platform that empowers users to create, manage, and share their thoughts and ideas with the world.

Previous Architecture



Updated Architecture





Current Progress

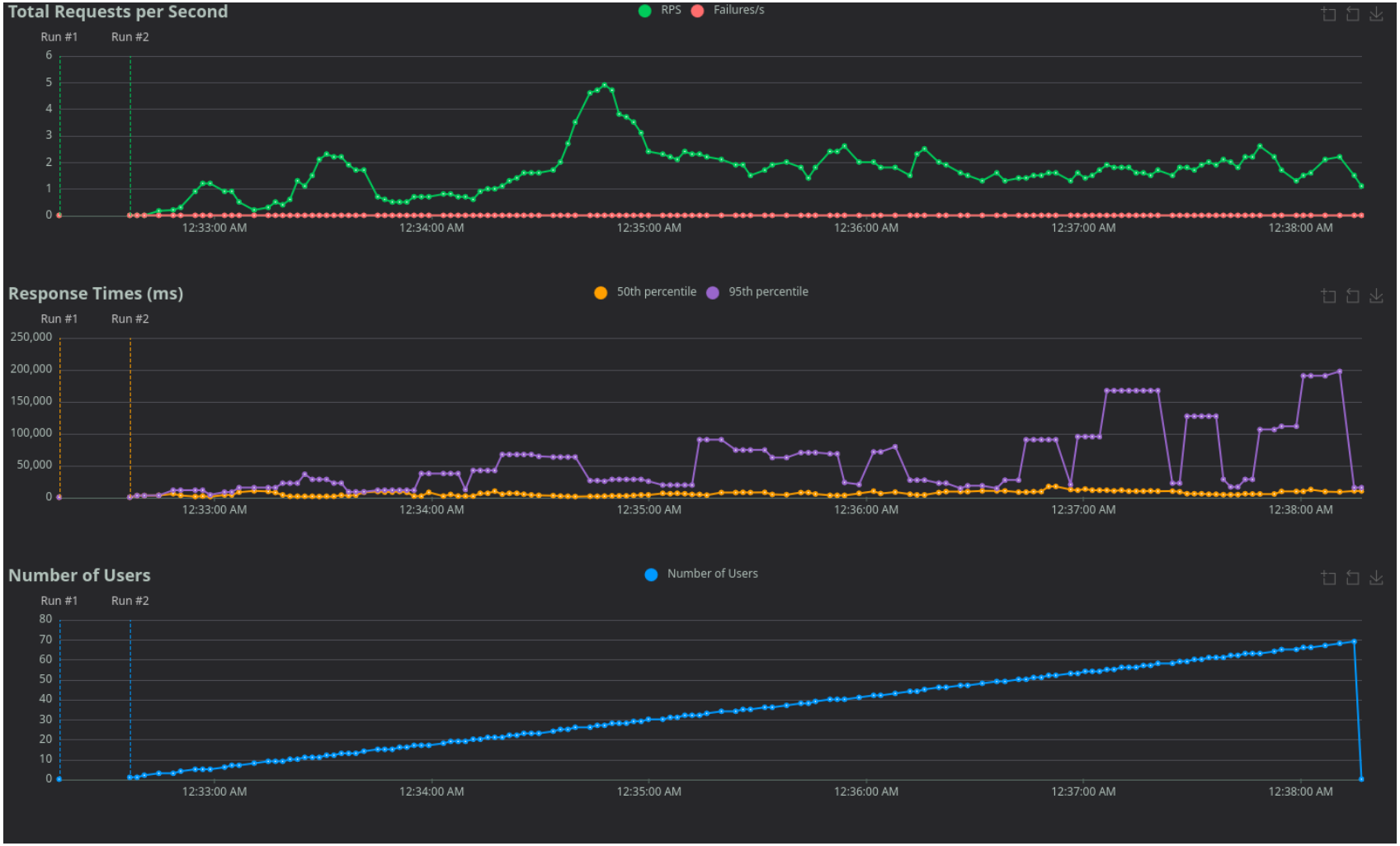
We have

- Deployed our PostgreSQL using Google CloudSQL
- Configured our backend to store images in Google Cloud Storage
- Created Kubernetes configuration for backend and frontend.
- Deployed Kubernetes cluster on GKE with pod and node autoscaling.

```
NAME                            CPU(cores)   MEMORY(bytes)
blog-backend-7c9f8cd697-99fpv   343m         114Mi
blog-backend-7c9f8cd697-czrgr   354m         113Mi
blog-backend-7c9f8cd697-fcnlv   354m         115Mi
blog-backend-7c9f8cd697-ln7wp   332m         95Mi
blog-backend-7c9f8cd697-rcgsb   353m         128Mi
```

```
NAME                                          CPU(cores)   CPU%   MEMORY(bytes)
gke-blog-cluster-default-pool-6d24c828-6w54   783m         83%    1288Mi
gke-blog-cluster-default-pool-6d24c828-948x   443m         47%    1351Mi
gke-blog-cluster-default-pool-6d24c828-qlsz   791m         84%    1110Mi
gke-blog-cluster-default-pool-6d24c828-w202   108m         11%    1119Mi
```

Test Results



Next Steps

- Extensive testing with high system load
- Detecting bottlenecks of the architecture
- Tuning deployment parameters and observing their effects on system performance