CI/CD for Azure Web Apps

Azure Container Registry

5

6

GitHub

3

Jenkins

4

Azure Kubernetes Service(AKS)

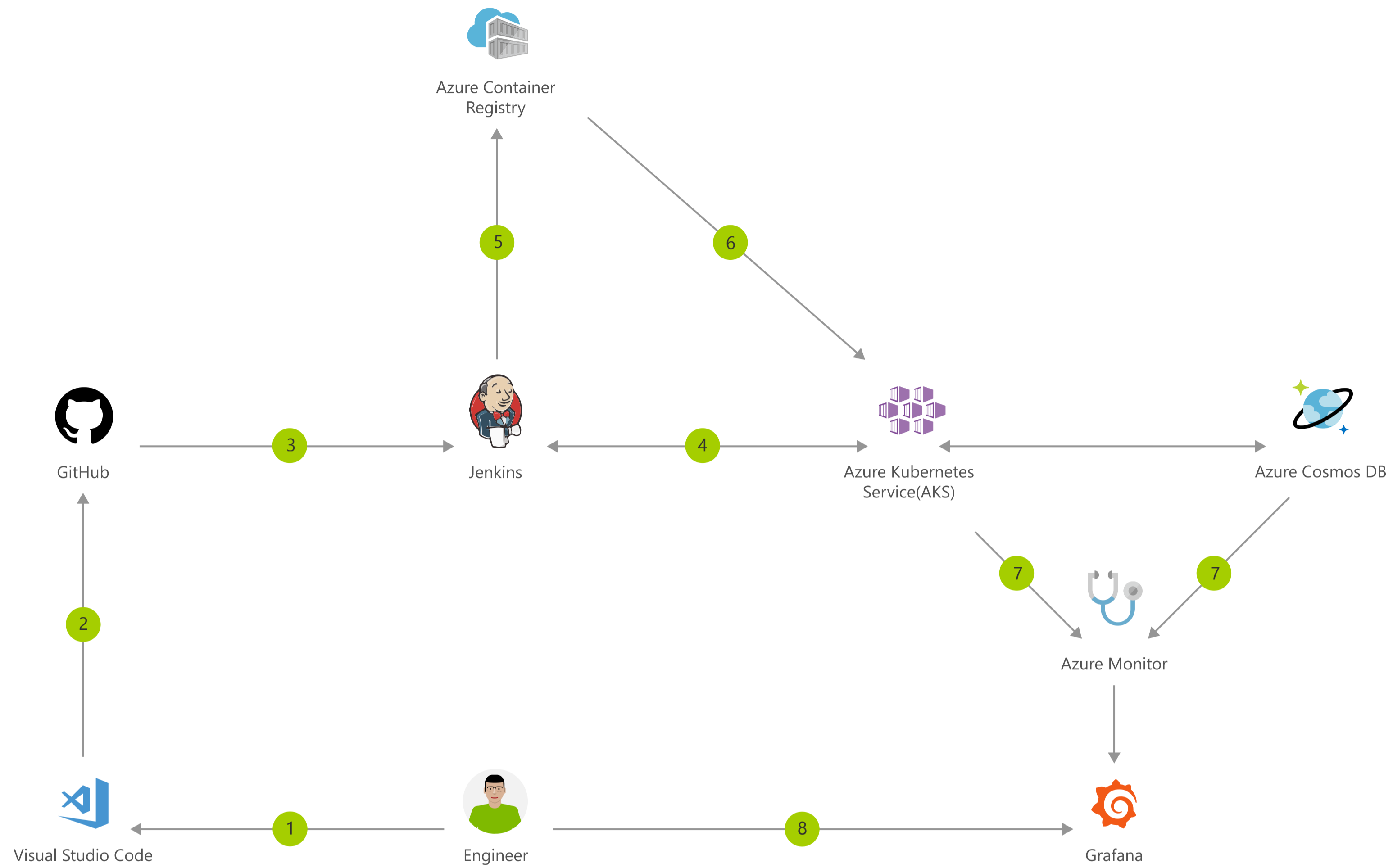Azure Cosmos DB

7

7

Azure Monitor

2

Visual Studio Code

1

Engineer

8

Grafana

Architecture overview

Containers make it easy for you to continuously build and deploy applications. By orchestrating the deployment of those containers using Azure Kubernetes Service (AKS), you can achieve replicable, manageable clusters of containers.

By setting up a continuous build to produce your container images and orchestration, you can increase the speed and reliability of your deployment.

1 Change application source code.

2 Commit code to GitHub.

3 Continuous Integration Trigger to Jenkins.

4 Jenkins triggers a build job using Azure Kubernetes Service (AKS) for a dynamic build agent.

5 Jenkins builds and pushes Docker container to Azure Container Registry.

6 Jenkins deploys your new containerized app to Kubernetes on Azure.

7 Container Service (AKS), backed by Azure Cosmos DB.

8 Grafana displays visualization of infrastructure and application metrics via Azure Monitor.

Azure products used in this solution

Github

Jenkins

Visual Studio Code

Azure Container Registry

Application Insights

Azure Kubernetes Service

Grafana

Azure Cosmos DB

Microsoft

Azure