Implement Horizontal Pod Autoscaler (HPA) and Vertical Pod Autoscaler (VPA) for a microservices-based application deployed on Kubernetes based on CPU utilization and memory utilization to optimized resource allocation considering following scenarios:

- Scenario 1: Burst Scaling: Simulate a burst in workload and observe how both HPA and VPA respond.
- Scenario 2: Resource Fluctuations: Introduce fluctuations in resource usage and observe how both HPA and VPA adapt to maintain optimal performance.

Tasks:

1. Deployment Configuration: Create Kubernetes Deployments for your application services with the following specifications:
   - Horizontal Pod Autoscaler (HPA):
     - Create an HPA for your application services deployment with three initial replicas
     - Configure the HPA to scale based on CPU utilization with a target average utilization of 80%.
     - Set the minimum and maximum number of replicas to ensure efficient scaling.
   - Vertical Pod Autoscaler (VPA):
     - Create a VPA for your application services deployment:
     - Configure the VPA to automatically adjust resource requests (CPU and memory) for each pod.
     - Define minimum and maximum allowed values for both CPU and memory requests.
2. Apply the deployment, HPA, and VPA to your Kubernetes cluster.

Monitor and document the behaviour of the application as it scales horizontally and adjusts resource requests vertically.

The final submission should consist of following deliverables:

1. Provide all Kubernetes files.
2. Submit documentation that includes:
   - Steps taken to implement HPA and VPA.
   - Observations and results from testing the special scenarios.
   - Any challenges encountered and how they were addressed.

Note: Apply horizontal and vertical autoscaling separately, as they may not function concurrently in Minikube.