Assignment: Deploying microservices to AKS

In this assignment you will deploy the Inventory and Trading microservices to your AKS cluster.

Deploy the microservices to AKS

In the Inventory and Trading repositories:

1. Under the kubernetes directory, modify the microservice yaml file by adding the missing Deployment and Service resources
   - The easiest way is probably to get a copy of the Deployment and Service resources from catalog.yaml
   - If you start from a catalog copy, make sure all references to catalog are properly updated
   - Use the latest container image version you deployed for the microservice to ACR
   - Use the correct port for containerPort and the health probes.
     - Inventory: 5004
     - Trading: 5006

2. Apply your new configuration yaml file to your AKS cluster

3. Verify the new pod reaches the RUNNING state

4. Commit and push your changes

Add an API Gateway route for the new microservices

In the Play.Infra repository:

5. Update mappings.yaml to include new mappings for Inventory and Trading

   Important: The Trading mapping needs an additional setting, **allow_upgrade**, to allow web socket connections from the frontend portal through the gateway to the microservice:

   ```
   apiVersion: getambassador.io/v3alpha1
   kind: Mapping
   metadata:
     …
   spec:
     …
     allow_upgrade:
     - websocket
   ```

6. Apply mappings.yaml to your AKS cluster

7. Commit and push your changes

Test the deployed microservices

In Postman:

8. Add new variables to the Local and Cloud environments that point to Inventory and Trading.

9. Test any of the REST API operations on Inventory and Trading using the new environment variables

    - If you would like to test the deployed microservices using any Catalog item created before deploying Inventory and Trading, make sure you first update that item by sending a PUT request to the Catalog /items REST API so that Inventory and Trading get notified of the existence of that item.

    - If you would like to test Trading operations using an existing player, make sure you first update that player by sending a PUT request to the Identity /users REST API so that Trading gets notified of the amount of gil that player has available.