# Traffic management

Tasks:

1. Change response of the Author and Book service by adding version (add any new fields) for client-side recognition
2. Canary deployment
   1. Change service version in response to return v2
   2. Create Kubernetes Deployment to deploy version 2
   3. Create the VirtualService to route 10% of incoming request to the version 2 and 90% to v1
   4. Create the VirtualService to route 50% of incoming request to the version 2 and 50% to v1
   5. Create the VirtualService to route 100% of incoming request to the version 2 and 0% to v1
   6. Read: <https://istio.io/blog/2017/0.1-canary/>
3. Development environment
   1. Change service version in response to add your name (modify the code)
   2. Create Kubernetes Deployment to deploy new version
   3. Create VirtualService which routes all incoming request to this new version based on the http header: developer: [your name]
   4. Read: <https://istio.io/docs/reference/config/networking/v1alpha3/virtual-service/>
4. Service resiliency
   1. Create DestinationRule to load balance all incoming requests to the author service by using RANDOM algorithm and include circuit braking.
   2. Create DestinationRule to load balance all incoming requests to the books service by using ROUND\_ROBIN algorithm and include circuit braking.
   3. Read:
      1. <https://istio.io/docs/tasks/traffic-management/circuit-breaking/>
      2. <https://istio.io/docs/concepts/traffic-management/> (Load Balancing)

All resource files have to be committed to the GitHub under folder ServiceMesh/Session 3.