**Bookinfo Deployment – 2-Tier Ingress**

**Components**:

* RBAC
  + Creates a service account to deploy the CIC and the CPX

Tier-1

* Citrix ADC VPX
* Citrix Ingress Controller (CIC)
  + Updates the Citrix ADC VPX to route traffic to the Tier-2 CPX

Tier-2

* Citrix ADC CPX with a CIC sidecar
  + Proxies traffic coming into Tier-2 to the product page application
  + Has a CIC sidecar which updates the CPX with the information to route to the product page
* Bookinfo Deployment
  + Product Page
    - Traffic gets proxied to the product page via the CPX
    - The product page pulls information from the Details and Reviews applications, which is proxied by the default router in OpenShift
  + Details
    - Has bookinfo details that gets displayed on the product page
  + Reviews v1, v2, and v3
    - Has reviewer information for bookinfo that is displayed on the product page
    - Reviews v1 shows reviews without star ratings
    - Reviews v2 shows reviews with black star ratings pulled from the ratings application
    - Reviews v3 shows reviews with red star ratings pulled from the ratings applications
  + Ratings
    - Displays star ratings to the reviews applications to be shown on the product page

**Steps to Install:**

1. On the OpenShift Cluster, look up the hostsubnets and add those routes in the Citrix ADC VPX
   1. oc get hostsubnets
   2. Add these routes by navigating to System🡪Network🡪Routes
2. Create the bookinfo namespace
   1. oc create namespace bookinfo
3. Set the namespace as the current project
   1. oc project bookinfo
4. Navigate to the directory in which the yaml files are located
   1. cd <directory name>
5. Deploy the RBAC file
   1. oc apply -f rbac-bookinfo.yaml
6. Deploying a CPX requires special permissions for the service account
   1. oc adm policy add-scc-to-user privileged system:serviceaccount:bookinfo:cpx
7. Deploy the Bookinfo deployment
   1. oc apply -f bookinfo.yaml
8. Deploy the service to expose the product page application
   1. oc apply -f service-productpage.yaml
9. Deploy the Tier-2 ingress file that will tag traffic for the sidecar CIC to update the CPX with the product page information
   1. oc apply -f ingress-productpage-tier2.yaml
10. Deploy the CPX with the CIC sidecar and the service exposing the CPX via NodePort
    1. oc apply -f cpx-bookinfo-tier2.yaml
11. Deploy the Tier-1 ingress file that will tag traffic for the Tier-1 CIC to update the VPX with the CPX information
    1. oc apply -f ingress-vpx-tier1
    2. The frontend IP in this file is mapped to the hostname “bookinfo.com”
12. Add the “frontend IP” to the hosts file on the cluster and your local machine with the hostname “bookinfo.com”
13. Deploy the Tier-1 CIC
    1. oc apply -f cic-bookinfo-tier1.yaml
    2. The parameter in the cic file “NS\_VIP” is the IP address that will expose the application
14. Navigate to bookinfo.com
    1. Select “Normal User”
    2. If book details and reviews are populated, then this is a successful deployment
    3. Refresh the page a few times to see the different types of reviews