**Pre-requisites for App Modernization workshop**

**Minimum Hardware Requirements:**

**Windows:**

 Windows 10 64-bit: Pro, Enterprise, or Education (Build 15063 or later).

 Hyper-V and Containers Windows features must be enabled.

 The following hardware prerequisites are required to successfully run Client Hyper-V on Windows 10:

* 64 bit processor with [Second Level Address Translation (SLAT)](http://en.wikipedia.org/wiki/Second_Level_Address_Translation)
* 4GB system RAM
* BIOS-level hardware virtualization support must be enabled in the BIOS settings.

**MAC:**

* Mac hardware must be a 2010 or newer model, with Intel’s hardware support for memory management unit (MMU) virtualization, including Extended Page Tables (EPT) and Unrestricted Mode. You can check to see if your machine has this support by running the following command in a terminal: sysctl kern.hv\_support
* macOS Sierra 10.12 and newer macOS releases are supported. We recommend upgrading to the latest version of macOS.
* At least 4GB of RAM
* VirtualBox prior to version 4.3.30 must NOT be installed (it is incompatible with Docker Desktop for Mac). If you have a newer version of VirtualBox installed, it’s fine.

**Software Requirements:**

1. Google Chrome/Firefox browser
2. IBM Cloud Account- <https://cloud.ibm.com>
3. Git Installation- <https://git-scm.com/downloads>
4. DockerHub Account- <https://hub.docker.com/login/>
5. IBM Cloud CLI- <https://cloud.ibm.com/docs/cli?topic=cloud-cli-install-ibmcloud-cli>
6. Docker Installation-
   1. Docker for Windows- <https://docs.docker.com/docker-for-windows/install/>
   2. Docker for Mac- <https://docs.docker.com/docker-for-mac/install/>
7. Kubernetes Command Line Tool- <https://cloud.ibm.com/docs/cli?topic=cloud-cli-install-devtools-manually#idt-install-kube>
8. IBM Cloud Kubernetes Service CLI plug-in- <https://cloud.ibm.com/docs/cli?topic=cloud-cli-install-devtools-manually#idt-install-kubernetes-cli-plugin>
9. IBM Cloud Container Registry CLI plug-in- <https://cloud.ibm.com/docs/cli?topic=cloud-cli-install-devtools-manually#idt-install-container-registry-cli-plugin>
10. Install Helm- <https://cloud.ibm.com/docs/cli?topic=cloud-cli-install-devtools-manually#idt-install-helm>
11. Appsody Installation- <https://appsody.dev/docs/getting-started/installation>
12. Node.JS installation- <https://nodejs.org/en/download/>
13. API Connect Toolkit Installation- <https://www.ibm.com/support/knowledgecenter/en/SSFS6T/com.ibm.apic.toolkit.doc/tapim_cli_install.html>
14. Docker Compose Installation- <https://docs.docker.com/compose/install/>
15. Transformation Advisor Local Installation- <https://www.ibm.com/cloud/garage/tutorials/install-ibm-transformation-advisor-local>

**Websites to be whitelisted:**

* 1. IBM Cloud- <https://cloud.ibm.com>
  2. Github- <https://github.com/>