Mediawiki deployment using Terraform and Ansible integrated with azure DevOps Pipeline

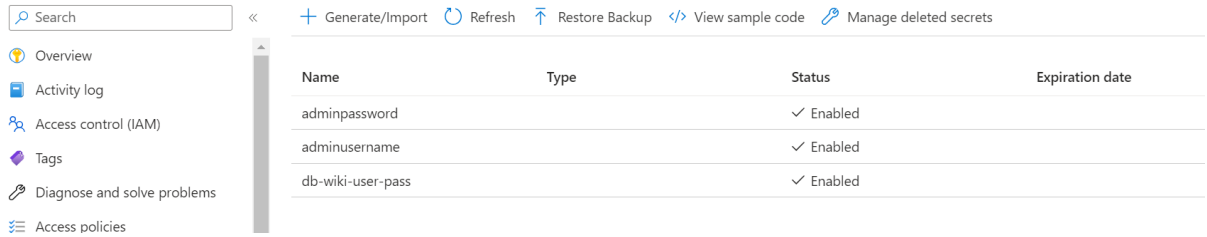
GITHUB URL: - https://github.com/myultron/mediawiki_assignment.git

This document contains the steps required to deploy mediawiki over Apache server in Redhat virtual machine in azure.

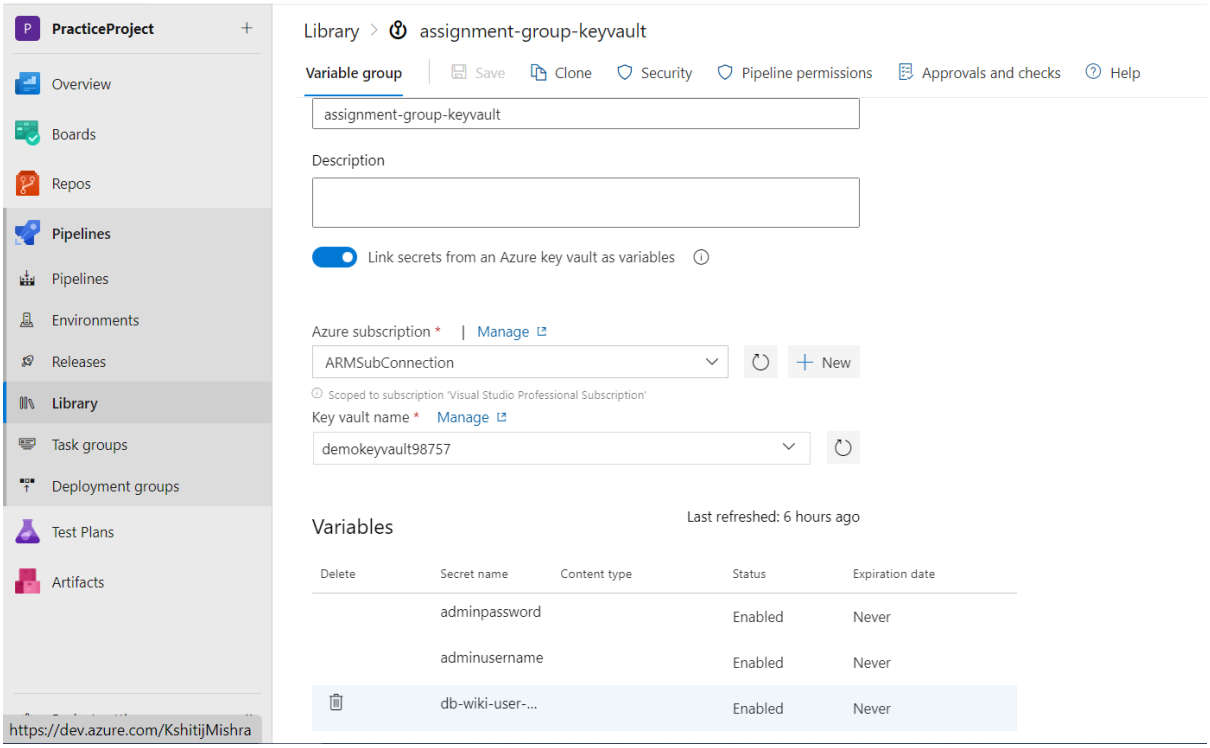
Steps:-

1. Put the code files in azure repos as that is the default code repo for azure DevOps and all pipelines has been created using azure repos integration.
   Note: - You can use github repo as well but that requires additional layer of authentication. So, this pipeline code mainly supports azure repos as of now.

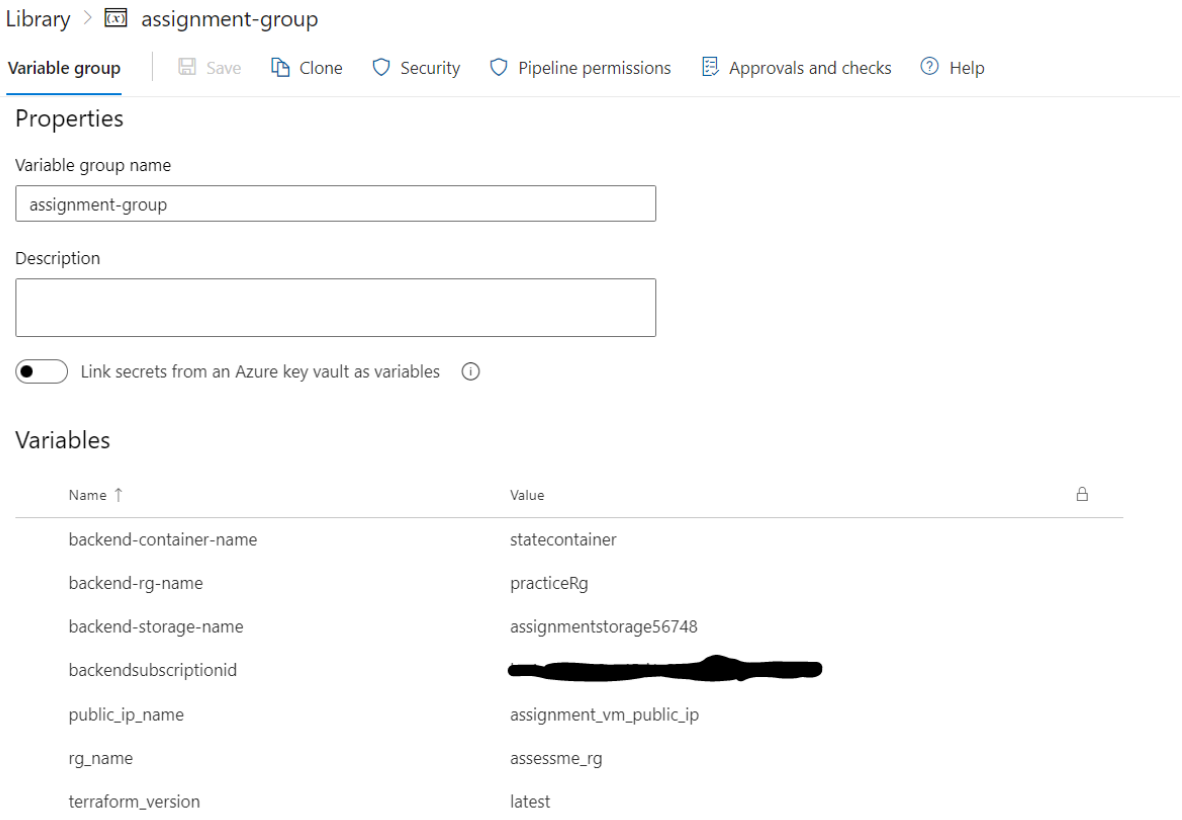
2. Create a service connection with azure subscription with contributor role. Also, create one keyvault and provide the get and list permission to service connection's service principle over keyvault . Create the below secrets in keyvault which can be used as sensitive variable by terraform and ansible in pipelines.



3. Now, create variable group named assignment-group-keyvault and connect it to previously create keyvault . So that, we can use secrets in our pipeline.



4. Create a storage account and a blob container (with Azure Active directory authentication method). Assign blob data contributor role to service principal which is created in above steps. This storage account container will be used to store terraform state file.
5. Now, Create a variable group named assignment-group in azure devops and storage account details, subscription details and terraform version and etc. Please refer the variable from below snip, keep the variable names same and put the variable values as per your environment.



6. Finally, Create a pipeline with azure-pipelines.yaml file (stored in repo in root directory) and run that pipeline. After completion of pipeline, Vm will be created and mediawiki will be deployed. Check the VM's public ip in the subscription and hit it in the browser.

Note: - This is a simple architecture. There are lots of option available for security and networking like environments in azure DevOps, approval and checks, linting, application gateway, ansible vault, VMSS (For scaling and high availability purpose), Azure Firewall, DNS zones for providing dns name to IPs etc. It was not possible to implement all in such short time.