1. **Create service principle credentials from the following link :** <https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-group-create-service-principal-portal#check-azure-subscription-permissions>
2. **Setup the following environment/config variables (if the values are being set in the environment use all caps, if in config use small letters**
   1. **Mandatory**
      1. **AZURE\_SUBSCRIPTION\_ID**
      2. **AZURE\_CLIENT\_ID**
      3. **AZURE\_SECRET**
      4. **AZURE\_TENANT**
   2. **Optional**
      1. **azure\_region\_name (default: eastus)**
      2. **azure\_resource\_group(default: Cloudbridge)**
      3. **azure\_storage\_account\_name (default: cloudbridgeazure)**
3. **Create a provider**

from cloudbridge.cloud.factory import CloudProviderFactory, ProviderList  
  
  
config = {'azure\_subscription\_id': 'REPLACE WITH ACTUAL VALUE',  
 'azure\_client\_Id': 'REPLACE WITH ACTUAL VALUE',  
 'azure\_secret': 'REPLACE WITH ACTUAL VALUE',  
 'azure\_tenant': ' REPLACE WITH ACTUAL VALUE''}  
provider = CloudProviderFactory().create\_provider(ProviderList.AZURE, config)

1. **Security Groups**

# A GUID for security gorup name

sg\_name = '{0}'.format(uuid.uuid4())

# create a Security group

sg\_create = self.provider.security.security\_groups.create(name=sg\_name, description="testCreateSecGroup", network\_id="")

# Get Security group

sg\_get = self.provider.security.security\_groups.get("/subscriptions/7904d702-e01c-4826-8519-f5a25c866a96/resourceGroups/cloudbridge-azure/providers/Microsoft.Network/networkSecurityGroups/"+ sg\_name)

# Find Security group

sg\_find = self.provider.security.security\_groups.find(sg\_name)

# List Security groups

sg\_list = self.provider.security.security\_groups.list()

sg = sg\_list.data[0]

# Add rule to Security Group

sg.add\_rule('\*', '25', '100', '\*')

# Get rule

get\_rule = sg.get\_rule('\*', '\*', '\*', '\*')

# Rule to json

rule\_json = sg.rules[1].to\_json()

# Security Group to json

sg\_json = sg.to\_json()

# Delete Rule

sg.rules[1].delete()

# Delete Security Group

sg\_del = self.provider.security.security\_groups.delete("/subscriptions/7904d702-e01c-4826-8519-f5a25c866a96/resourceGroups/cloudbridge-azure/providers/Microsoft.Network/networkSecurityGroups/"+sg\_name)

1. **Object Store**
2. **create a bucket.**

bucket = provider.object\_store.create(container\_name)

**B) List Buckets**

buckets = provider.object\_store.list()  
  
**C) Get Bucket**  
bucket = provider.object\_store.get(container.id)  
  
**D) find bucket**  
buckets = provider.object\_store.find(container\_name)  
  
**E) delete bucket**  
bucket.delete()  
  
**F) create object in bucket**  
obj = bucket.create\_object(object\_name)

**G) List obects in bucket**

Objects = bucket.list()

**H) Get object in bucket**

Obj = bucket.get(object\_name)

1. **Validate object present in bucket**

Obj = bucket.exists(object\_name)

**J) Get object content**

content = obj.iter\_content()

**K) Upload data to object**

obj.upload(obj\_content)

**L) Upload data from file**

obj.upload\_from\_file(file\_path)

**M) Generate object url**

url = obj.generate\_url()

**N) Delete object**

Obj.delete()