

# DKC Cloud Code Library R1.0

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## Function **AnsibleCreateLpgRouter**

### Synopsis:

This function creates an a shell script that creates OCI routing tables for local peering gateways. The shell script calls the Ansible script 014\_CreateLpgRouter.Yaml. 014\_CreateLpgRouter.Yaml calls the OCI APIs to create the resource.

### Parameters:

Parameter	Value	Comments
myLpgRouter	string	Must be the name of the LPG router that will be created
myCompartment	array	Dictionary object created by function Get-ChildCompartments
myVcn	array	Dictionary object created by function GetVcn
myLpg	array	Dictionary object created by function GetLPG

### Examples:

```
AnsibleCreateLpgRouter myRouterTableName $Compartment $Vcn $Lpg
```

### Return Values: None

## Function **AnsibleCreateVcn**

### Synopsis:

This function creates an a shell script that creates OCI virtual cloud networks (VCNs). The shell script calls the Ansible script 010\_PrepareToCreateVCN.yaml. 010\_PrepareToCreateVCN.yaml calls the OCI APIs to create the resource. The name of the VCN is derived from the compartment name. For example, of the compartment name is automation then the name of the VCN shall be automation\_vcn

### Parameters:

Parameter	Value	Comments
myCompartment	string	The name of the compartment where the VCN is to be created
myCompaertmentID	string	The OCID of the compartment
myVcnCidr	string	The CIDR of the VCN

### Examples:

```
AnsibleCreateVcn automation <compartment OCID> 10.0.0.0/24
```

### Return Values: None

## Function **CheckSubnet**

### Synopsis:

This function checks for a virtual cloud network subnet. If the subnet exists, it returns a null value. If the subnet does not exist, it creates the subnet for the VCN. This function is called by `ManageOciNetworkInfrastructure.ps1`

### Parameters:

Parameter	Value	Comments
myCompaertmentID	string	The OCID of the compartment
myCidr	string	The CIDR of the subnet

### Examples:

```
CheckSubnet $myCompartment $myCidr
```

### Return Values: None

## Function **CheckVcn**

### Synopsis:

This function checks for a virtual cloud network (VCN) . If the VCN exists, it returns a null value. If the VCN does not exist, it creates it. This function is called by ManageOciNetworkInfrastructure.ps1

### Parameters:

Parameter	Value	Comments
myCompaertmentID	string	The OCID of the compartment
myCidr	string	The CIDR of the VCN

### Examples:

```
CheckVcn $myCompartment $myCidr
```

### Return Values: None

# Function **Get-ChildCompartments**

## Synopsis:

This function checks for and returns all of the properties of all child compartments of the specified parent compartment OCID. Returns a null value on failure

## Parameters:

Parameter	Value	Comments
myParentCompartmentId	string	The OCID of the parent compartment

## Examples:

## Return Values:

Get-ChildCompartments <OCID of parent compartment>

Key	Returned	Description
data	int	The numeric value of the compartment object returned by the OCI API
data.freeform-tags	array	Array of strings for any freeform tags created with the compartment
<u>data.is-accessible</u>	null	
<u>data.id</u>	string	The OCID of the child compartment
data.time-created	date	The date stamp when the compartment was created
data.description	string	The descriptive name given to the compartment when it was created
data.defined-tags	array	Array of strings of defined tags that are associated with the compartment
data.name	string	The name of the compartment
data.lifecycle-state	string	The state of the compartment, typically is ACTIVE, but may have other states. See <a href="https://docs.cloud.oracle.com/en-us/iaas/api/#/en/identity/20160918/Compartment/">https://docs.cloud.oracle.com/en-us/iaas/api/#/en/identity/20160918/Compartment/</a>
data.inactive-status	null	
data.compartment-id	string	The OCID of the parent compartment

# Function CopyBlockVolsInCompartment

## Synopsis:

This complex function copies all block volume backup copies from the specified compartment to the specified data center region. The tenant must be subscribed to the OCI region to which you wish to copy backups. See managing regions at <https://docs.cloud.oracle.com/en-us/iaas/Content/Identity/Tasks/managingregions.htm> and ensure your tenant is properly configured prior to calling this function

## Parameters:

Parameter	Value	Comments
myCompartment	array	The dictionary object of the compartment as returned by the function GetActiveChildCompartment
myTargetRegion	string	The name of the OCI data center region where you want to copy the block volume backups

## Examples:

```
CopyBlockVolsInCompartment $myCompartment "us-phoenix-1"
```

## Return Values:

The function returns standard output returned by the OCI API function CopyVolumeBackup. See <https://docs.cloud.oracle.com/en-us/iaas/api/#/en/iaas/20160918/VolumeBackup/CopyVolumeBackup> and [https://docs.cloud.oracle.com/en-us/iaas/tools/oci-cli/2.8.2/oci\\_cli\\_docs/cmdref/bv/backup/copy.html](https://docs.cloud.oracle.com/en-us/iaas/tools/oci-cli/2.8.2/oci_cli_docs/cmdref/bv/backup/copy.html)



# Function **CopyBootVolsInCompartment**

## Synopsis:

This complex function copies all boot volume backup copies from the specified compartment to the specified data center region. The tenant must be subscribed to the OCI region to which you wish to copy backups. See managing regions at <https://docs.cloud.oracle.com/en-us/iaas/Content/Identity/Tasks/managingregions.htm> and ensure your tenant is properly configured prior to calling this function

## Parameters:

Parameter	Value	Comments
myCompartment	array	The dictionary object of the compartment as returned by the function GetActiveChildCompartment
myTargetRegion	string	The name of the OCI data center region where you want to copy the block volume backups

## Examples:

```
CopyBootVolsInCompartment $myCompartment "us-phoenix-1"
```

## Return Values:

The function returns standard output returned by the OCI API function CopyVolumeBackup. See <https://docs.cloud.oracle.com/en-us/iaas/api/#/en/iaas/20160918/BootVolumeBackup/CopyBootVolumeBackup> and [https://docs.cloud.oracle.com/en-us/iaas/tools/oci-cli/2.8.2/oci\\_cli\\_docs/cmdref/bv/boot-volume-backup/copy.html](https://docs.cloud.oracle.com/en-us/iaas/tools/oci-cli/2.8.2/oci_cli_docs/cmdref/bv/boot-volume-backup/copy.html)

## Function **GetActiveChildCompartment**

### Synopsis:

This function checks for and returns properties of the active child compartment if found. Otherwise, the return value is null.

### Parameters:

Parameter	Value	Comments
myCompartmentID	array	The dictionary object of all child compartments as created by Get-ChildCompartments
myCompartment	string	The name of the active child compartment to search for

### Examples:

```
GetActiveChildCompartment $myCompartmentID $myCompartment
```

### Return Values:

Key	Returned	Description
compartment-id	string	The OCID of the parent compartment

# Function **GetActiveParentCompartment**

## Synopsis:

This function checks for and returns properties of the active parent compartment if found. Otherwise, the return value is null.

## Parameters:

Parameter	Value	Comments
myCompartmentID	array	The dictionary object the parent compartments
myCompartment	string	The name of the active parent compartment to search for

## Examples:

```
GetActiveChildCompartment $myCompartmentID $myCompartment
```

## Return Values:

Key	Returned	Description
freeform-tags	array	Array of strings for any freeform tags created with the compartment
is-accessible	null	
id	string	The OCID of the child compartment
time-created	date	The date stamp when the compartment was created
description	string	The descriptive name given to the compartment when it was created
defined-tags	array	Array of strings of defined tags that are associated with the compartment
name	string	The name of the compartment
lifecycle-state	string	The state of the compartment, typically is ACTIVE, but may have other states. See <a href="https://docs.cloud.oracle.com/en-us/iaas/api/#/en/identity/20160918/Compartment/">https://docs.cloud.oracle.com/en-us/iaas/api/#/en/identity/20160918/Compartment/</a>
inactive-status	null	
compartment-id	string	The OCID of the parent compartment

# Function **GetBackupPolicies**

## Synopsis:

This function checks for and returns properties of all policies in the specified compartment

## Parameters:

Parameter	Value	Comments
myCompartment	array	The dictionary object of all child compartments as created by Get-ChildCompartments

## Examples:

```
GetBackupPolicies $myCompartment
```

## Return Values:

Key	Returned	Description
data	array	Integer values that represent the number of backup policy objects return from the API
data.compartment-id	string	The OCID of the compartment that contains the backup policies
data.display-name	string	The name of the policy
<u>data.id</u>	string	The OCID of the policy
data.schedules	array	An array of objects that hold the schedules of the specified policy. See <a href="https://docs.cloud.oracle.com/en-us/iaas/api/#/en/iaas/20160918/VolumeBackupPolicy/">https://docs.cloud.oracle.com/en-us/iaas/api/#/en/iaas/20160918/VolumeBackupPolicy/</a>

# Function **GetBlockVolumes**

## Synopsis:

This function checks for and returns properties of all block volumes in the availability domain that the VM resides in

## Parameters:

Parameter	Value	Comments
myVM	array	The dictionary object of the VM as returned by GetVM

## Examples:

```
GetBlockVolumes $myVM
```

## Return Values:

Key	Returned	Description
data	array	Integer values that represent the number of block volumes objects return from the API
data.availability-domain	string	The name of the region availability domain where the block volumes reside
data.compartment-id	string	The OCID of the compartment that contains the block volumes
data.display-name	string	The name of the block volume
data.instance-id	string	The OCID of the instance to which the block volume is attached
data.lifecycle-state	string	The state of the device. The most common type is "ATTACHED". See <a href="https://docs.cloud.oracle.com/en-us/iaas/api/#/en/iaas/20160918/Volume/">https://docs.cloud.oracle.com/en-us/iaas/api/#/en/iaas/20160918/Volume/</a>
data.time-created	date	The date the block volume was created

# Function **GetBootVolumes**

## Synopsis:

This function checks for and returns properties of all boot volumes in the availability domain that the VM resides in

## Parameters:

Parameter	Value	Comments
myVM	array	The dictionary object of the VM as returned by GetVM

## Examples:

```
GetBootVolumes $myVM
```

## Return Values:

Key	Returned	Description
data	array	Integer values that represent the number of boot volumes objects return from the API
data.availability-domain	string	The name of the region availability domain where the boot volumes reside
data.compartment-id	string	The OCID of the compartment that contains the boot volumes
data.display-name	string	The name of the boot volume
data.instance-id	string	The OCID of the instance to which the boot volume is attached
data.lifecycle-state	string	The state of the device. The most common type is "ATTACHED". See <a href="https://docs.cloud.oracle.com/en-us/iaas/api/#/en/iaas/20160918/BootVolume/">https://docs.cloud.oracle.com/en-us/iaas/api/#/en/iaas/20160918/BootVolume/</a>
data.time-created	date	The date the boot volume was created

# Function **GetDbnodeName**

## Synopsis:

This function checks for and returns properties of a virtual machine database service node

## Parameters:

Parameter	Value	Comments
myDbSystems	array	The dictionary object of the database systems as returned by the function GetDbSystems
myDbnodeName	string	The name of the service node to search for

## Examples:

```
GetDbnodeName $myDbSystems $myDbnodeName
```

## Return Values:

Key	Returned	Description
fault-domain	string	The fault domain where the service node resides
software-storage-size-in-gb	int	The size in GB of the service node's boot volume
hostname	string	The name of the service node
time-created	date	The date the service node was created
lifecycle-state	string	The state of the service node. States may be AVAILABLE, STOPPED, STARTING, STOPPING, TERMINATING, TERMINATED
vnic-id	string	The OCID of the VNIC assigned to the service node
id	string	The OCID of the service node
db-system-id	string	The OCID of the DBaaS system to which this service node is assigned to
backup-vnic-id	string	If applicable, the OCID of the backup VNIC for this service node



# Function **GetDbSystems**

## Synopsis:

This function checks for and returns properties of all virtual machine database system within a compartment

## Parameters:

Parameter	Value	Comments
myCompartment	array	The dictionary object of the compartment as returned by the function GetActiveChildCompartment

## Examples:

```
GetDbSystems $myCompartment
```

## Return Values:

Key	Returned	Description
data	array	Array of objects that describe all DBaaS VMs found within the compartment
data.availability-domain	string	The availability domain of the DBaaS system
boot-volume-id	string	The OCID of the Oracle database compartment that holds the database
data.compartment-id	string	The OCID of the compartment that holds the DBaaS
data.display-name	string	The name of the DBaaS resource
<u>data.id</u>	string	The OCID of the DBaaS resource
data.instance-id	string	Same as <u>data.id</u>
data.lifecycle-state	string	The state of the compartment. Can be "ATTACHED, DETACHED, TERMINATED"
data.time-created	date	The date that the resource was created

# Function **GetLPGs**

## Synopsis:

This function checks for and returns properties of all local peering gateways that are members of a VCN. It returns a dictionary object containing the properties of the LPGs.

## Parameters:

Parameter	Value	Comments
myVCN	array	The dictionary object of the VCN that holds the LPGs

## Examples:

```
GetLPGs $myVCN
```

## Return Values:

Key	Returned	Description
data	array	Array of objects that describe all LPGs associated with the VCN
route-table-id	string	The OCID of the route table the LPG is assigned to
vcn-id	string	The OCID that the LPG is associated with
is-cross-tenancy-peering	string	The status of cross tenancy peering. Values are True or False
data.display-name	string	The name of the DBaaS resource
lifecycle-state	string	The life cycle status of the LPG.
compartment-id	string	The OCID of the compartment to which the LPG is a member of
time-created	date	The date that the resource was created
display-name	string	The display name of the LPG
peer-advertised-cidr-details	array	The CIDRs of the peered VCNs by this LPG. Values within the array elements are strings
peering-status	string	The status of the LPG's peering
peer-advertised-cidr	string	The route that the LPG advertises to the VCN

# Function **GetRouteTable**

## Synopsis:

This function checks for and returns properties of all route tables that are members of a VCN. It returns a dictionary object containing the properties of the route tables.

## Parameters:

Parameter	Value	Comments
myVCN	array	The dictionary object of the VCN that holds the LPGs

## Examples:

```
GetRouteTable $myVCN
```

## Return Values:

Key	Returned	Description
data	array	Array of objects that describe all route tables associated with the VCN
vcn-id	string	The OCID of the VCN that the route table is a member of
lifecycle-state	string	The life cycle status of the route table
display-name	string	The display name of the route table
time-created	date	The date stamp when the resource was completed
route-rules	array	An array of route rules built for this route table
route-rules.network-entity-id	string	The OCID of the LPG to send traffic to
route-rules.destination-type	string	The destination type for the route, usually CIDR_BLOCK
route-rules.destination	string	The destination CIDR
compartment-id	string	The compartment OCID where the route table resides
id	string	The OCID of the route table

# Function **GetSubnet**

## Synopsis:

This function checks for and returns properties of all subnets that are members of a VCN. It returns a dictionary object containing the properties of the subnets within the VCN.

## Parameters:

Parameter	Value	Comments
myVCN	array	The dictionary object of the VCN that holds the LPGs

## Examples:

```
GetSubnet $myVCN
```

## Return Values:

Key	Returned	Description
data	array	Array of objects that describe all subnets associated with the VCN
ipv6-cidr-block	string	The IP V6 CIDR assigned to the subnet
virtual-router-mac	string	The MAC address assigned to the VCN
compartment-id	string	The compartment OCID where the subnet resides
security-list-ids	array	The security list(s) applied to this subnet
dns-label	string	The subnet label assigned to the subnet
subnet-domain-name	string	The FQDN of the subnet
dhcp-options-id	string	The OCID of the DHCP object that defines DHCP options to the subnet
vcn-id	string	The OCID of the VCN to which the subnet is a member of
virtual-router-ip	string	The IP address assigned to the router for this subnet
display-name	string	The display name of the subnet
cidr-block	string	The CIDR block assigned to the subnet
lifecycle-state	string	The life cycle status of the subnet

Key	Returned	Description
lifecycle-state	string	The life cycle status of the subnet
availability-domain	string	The availability domain to which the subnet is applied. This is not used in DKC cloud deployments since all network resources in our builds are built across availability domains
ipv6-virtual-router-ip	string	The IPv6 address assigned to the subnet if IPv6 addresses are used
route-table-id	string	The OCID of the route table assigned to the subnet
time-created	date	The date the resource was created
prohibit-public-ip-on-vnic	boolean	Determines if public IPs can be assigned to resources within the subnet. Valid values are True or False
ipv6-public-cidr-block	string	The IPv6 CIDR assigned to the subnet if IPv6 addressing is used
id	string	The OCID of the subnet

# Function **GetTenantID**

## Synopsis:

This function checks for and returns properties regarding the OCI subscription tenancy

## Parameters:

Parameter	Value	Comments
myTenantId	string	The OCID of the tenancy

## Examples:

```
GetTenantID $myTenantId
```

## Return Values:

Key	Returned	Description
data	array	Integer values that represent the number of tenancy objects return from the API
compartment-id	string	null
description	string	The description of the tenancy
id	string	The OCID of the tenancy
inactive-status	string	Should always be null
is-accessible	boolean	Values are True or False
lifecycle-state	string	should always be AVAILABLE
name	string	The display name of the tenancy
time-created	date	The date the tenancy was created

# Function **GetVcn**

## Synopsis:

This function checks for and returns properties regarding the VCNs within the specified compartment

## Parameters:

Parameter	Value	Comments
myCompartment	array	A dictionary object that describes the compartment where the VCNs reside

## Examples:

```
GetVCN $myCompartment
```

## Return Values: (in JSON)

Key	Returned	Description
data	array	Integer values that represent the number of VCN objects return from the API
cidr-block	string	The CIDR of the VCN
compartment-id	string	The compartment OCID where the VCN resides
default-dhcp-options-id	string	The OCID of the DHCP object that defines DHCP options to the subnet
default-route-table-id	string	The default OCID of the router table applied to any subnet members of the VCN that do not have a defined route table
default-security-list-id	string	The default OCID of the security list applied to any subnet members of the VCN that do not have a defined security list
display-name	string	The display name of the VCN
dns-label	string	The DNS label for the VCN
id	string	The OCID of the VCN
ipv6-cidr-block	string	The IPv6 CIDR block if IPv6 addresses are used
ipv6-public-cidr-block	string	The IPv6 CIDR block if public IPv6 addresses are used

Key	Returned	Description
lifecycle-state	string	The life cycle state of the VCN
time-created	date	The date stamp when the VCN object was created
vcn-domain-name	string	The FQDN name for the VCN object



# Function **GetVM**

## Synopsis:

This function checks for and returns properties regarding the OCI VM specified in the argument vector. Function requires the dictionary object created by GetVMs be passed to it in addition to the string value of the VM name

## Parameters:

Parameter	Value	Comments
myVMs	array	Dictionary object of VMs within a compartment
myVmName	string	The display name of the VM to searcho for

## Examples:

```
GetVM $myVMs $myVmName
```

## Return Values:

Key	Returned	Description
launch-options	array	Options set for the launch of this VM
<u>launch-options.is-pv-encryption-in-transit-enabled</u>	boolean	Should always be false for DKC deployments
launch-options.network-type	string	Should always be PARAVIRTUALIZED for DKC deployments
launch-options.boot-volume-type	string	Should always be PARAVIRTUALIZED for DKC deployments
<u>launch-options.is-consistent-volume-naming-eabled</u>	boolean	
launch-options.firmware	string	The cloud physical machine firmware applied to the paravirtualized VM
launch-options.remote-data-volume-type	string	Should always be PARAVIRTUALIZED for DKC deployments
launch-mode	string	Should always be PARAVIRTUALIZED for DKC deployments

Key	Returned	Description
metadata	array	An array of strings. The array is formatted using the python function open(with ssh_keys, .....)
time-created	date	The date the VM object was created
source-details	array	An array of strings that keeps a history of the original image source
source-details.source-type	string	Is usually "image"
source-details.kms-key-id	string	Usually null
source-details.boot-volume-size-in-gbs	string	Usually null
source-details.image-id	string	The OCID of the original source image that was used to create the boot volume. This OCID should not be relied upon for cloud automation

## Function **GetVMs**

### Synopsis:

This function checks for and returns properties regarding the VMs within a compartment

### Parameters:

Parameter	Value	Comments
myCompartment	Array	Dictionary object created by GetActiveChildCompartment containing properties describing the compartment VMs are a member of

### Examples:

```
GetVMs $myCompartment
```

### Return Values:

Key	Returned	Description
data	array	Integer values that represent the number of VM objects return from the API
All other objects		Array elements for each VM as described above in GetVM

# Function **GetVmNicAttachment**

## Synopsis:

This function checks for and returns properties regarding the VNIC object

## Parameters:

Parameter	Value	Comments
myVM	Array	Dictionary object created by GetVM containing properties describing a VM

## Examples:

```
GetVmNicAttachment $myVM
```

## Return Values:

Key	Returned	Description
lifecycle-state	string	State of the NIC, should always be ATTACHED
time-created	date	Date the object was created
display-name	string	optional, usually null
compartment-id	string	The compartment OCID where the NIC is located at
nic-index	int	Index number for the VNIC, usually 0
vlan-tag	int	The availability domain VLAN number assigned to the VNIC
instance-id	string	The VM instance the VNIC is attached to
id	string	The OCID of the VNIC
subnet-id	string	The OCID of the subnet the VNIC is bound to
availability-domain	string	The name of the availability domain the VNIC is a member of

# Function **GetVmBootVolBackups**

## Synopsis:

This function checks for and returns properties regarding all VM Boot Volume backup objects within the specified compartment. This includes all backup objects in all availability domains and regions that the compartment spans.

## Parameters:

Parameter	Value	Comments
myCompartment	Array	Dictionary object created by GetActiveChildCompartment containing properties describing the compartment

## Examples:

```
GetVmBootVolBackups $myCompartment
```

## Return Values:

Key	Returned	Description
data	array	Integer values that represent the number of VM boot volume backup objects return from the API
source-type	string	Describes how the object was created. Usually SCHEDULED
time-created	date	Data stamp of when the object was created
unique-size-in-gbs	int	Actual storage of the backup
size-in-gb	int	The size of the volume if restored from this and other volume backups
type	string	Is either INCREMENTAL or FULL
time-request-received	date	Date stamp when the backup was requested
display-name	string	Name of the backup object, either as defined by a backup policy schedule or as defined by the user if a manual backup
id	string	The OCID of the backup object
boot-volume-id	string	The OCID of the original volume from which the backup was created
compartment-id	string	The compartment the objects are a member of

Key	Returned	Description
compartment-id	string	The compartment the objects are a member of
expiration-time	date	The date and time that the backup object will be terminated
lifecycle-state	string	The state of the object, usually AVAILABLE or TERMINATED
image-id	string	The original image OCID from which the boot volume had been created from

# Function **GetVmBlockVolBackups**

## Synopsis:

This function checks for and returns properties regarding all VM Block Volume backup objects within the specified compartment. This includes all backup objects in all availability domains and regions that the compartment spans.

## Parameters:

Parameter	Value	Comments
myCompartment	Array	Dictionary object created by GetActiveChildCompartment containing properties describing the compartment

## Examples:

```
GetVmBlockVolBackups $myCompartment
```

## Return Values:

Key	Returned	Description
data	array	Integer values that represent the number of VM boot volume backup objects return from the API
source-type	string	Describes how the object was created. Usually SCHEDULED
time-created	date	Data stamp of when the object was created
unique-size-in-gbs	int	Actual storage of the backup
size-in-gb	int	The size of the volume if restored from this and other volume backups
type	string	Is either INCREMENTAL or FULL
time-request-received	date	Date stamp when the backup was requested
display-name	string	Name of the backup object, either as defined by a backup policy schedule or as defined by the user if a manual backup
id	string	The OCID of the backup object
boot-volume-id	string	The OCID of the original volume from which the backup was created
compartment-id	string	The compartment the objects are a member of

Key	Returned	Description
compartment-id	string	The compartment the objects are a member of
expiration-time	date	The date and time that the backup object will be terminated
lifecycle-state	string	The state of the object, usually AVAILABLE or TERMINATED
image-id	string	The original image OCID from which the boot volume had been created from



# Function **GetBlockVolumes**

## Synopsis:

This function checks for and returns properties regarding block volume objects that are attached to a VM

## Parameters:

Parameter	Value	Comments
myVM	Array	Dictionary object created by GetVM containing properties describing the VM

## Examples:

```
GetBlockVolumes $myVM
```

## Return Values:

Key	Returned	Description
data	array	Integer values that represent the number of block volumes objects return from the API
is-read-only	boolean	Always False with DKC deployments
availability-domain	string	The name of the availability domain where the block volume is located
time-created	date	The date stamp the object was created
attachment-type	string	Usually paravirtualized but sometimes iscsi
id	string	The OCID of the block volume attachment
lifecycle-state	string	Always ATTACHED if the block volume is attached to a VM, but may have other states per <a href="https://docs.cloud.oracle.com/en-us/iaas/api/#/en/iaas/20160918/Volume/ListVolumes">https://docs.cloud.oracle.com/en-us/iaas/api/#/en/iaas/20160918/Volume/ListVolumes</a>
volume-id	string	The OCID of the block volume
is-shareable	boolean	Either True or False
instance-id	string	The OCID to which the block volume is attached
is-pv-encryption-in-transit-enabled	boolean	Usually False

Key	Returned	Description
device	string	The device identity on the VM
compartment-id	string	The OCID of the compartment the object is a member of
display-name	string	The name of the object

# Function **ReadCsv**

## Synopsis:

This function reads a CSV file and returns a dictionary object containing data read from the file. It requires that the CSV file have a semicolon delimiter. We use this function in the codebase when tenants are initially built out

## Parameters:

Parameter	Value	Comments
\$myFile	string	The fully qualified path where the CSV file is located

## Examples:

```
ReadCsv $myFile
```

## Return Values:

Key	Returned	Description
Various	array	Array containing objects of strings or integers up to 16 columns in length

# Function RestoreBootVol

## Synopsis:

This function restores a boot volume from the specified backup object \$myVolToRestore to the specified volume name \$myNewVmName using the properties of the source VM \$myVmName. The function makes no assumption that the specified source VM and source boot volume backup exist and will through an exception if said objects are not found. The return value is either an error code or a JSON object representation of the restored volume. The most recent backup is restored. See <https://docs.cloud.oracle.com/en-us/iaas/api/#/en/iaas/20160918/BootVolume/CreateBootVolume> for more information regarding the REST API called by this function.

## Parameters:

Parameter	Value	Comments
\$myVolToRestore	array	A dictionary object containing properties of the selected boot volume to restore
\$myVmName	array	A dictionary object containing properties of the source VM. This is used to determine the properties of the source VM
\$myNewVmName	array	A dictionary object that describes the properties of the target object to restore

## Examples:

```
RestoreBootVol $myVolToRestore $myVmName $myNewVmName
```

## Return Values:

Key	Returned	Description
Various	JSON	See referenced API link above for details

# Function **ReturnValWithOptions**

## Synopsis:

This function returns the requested type of data from the dictionary object passed to it

## Parameters:

Parameter	Value	Comments
\$myProgramName	string	The name of the program calling this function
\$myReturnValue	array	The dictionary object the function parses
\$myOption	string	The dictionary key-pair to return to the calling program. Values may be ALL, BLOCKVOLID, BOOTVOLID, COMPARTMENT, DISPLAYNAME, OCID

## Examples:

```
ReturnDataValWithOptions $myProgramName $myReturnValue $myOptions
```

## Return Values:

Key	Returned	Description
Various	Dictionary object or string	Return value depends on how the function is called

# Function **SelectBackupPolicy**

## Synopsis:

This function selects and returns backup policy \$myBackupPolicy from the dictionary object \$myBackupPolicies.

## Parameters:

Parameter	Value	Comments
\$myBackupPolicies	array	Dictionary object created from GetBackupPolicies
\$myBackupPolicy	string	String value containing name of backup policy to return

## Examples:

```
SelectBackupPolicy $myBackupPolicies $myBackupPolicy
```

## Return Values:

Key	Returned	Description
time-created	date	Date the object was created
display-name	string	The name of the backup policy
id	string	The OCID of the backup policy
compartment-id	string	The OCID the object is a member of
schedules	array	The schedules associated with the backup policy
schedules.month	string	Usually JANUARY, unless schedule is defined to run 1 time per month
schedules.day-of-month	int	usually 1, unless schedule is defined to run on a day of the month
schedules.backup-type	string	INCREMENTAL or FULL
offset-type	string	Always STRUCTURED
day-of-week	string	Varies
period	string	Always ONE_DAY
retention-seconds	int	Number of seconds to retain the backup

Key	Returned	Description
time-zone	string	Should always be set to "REGIONAL_DATA_CENTER_TIME"
hour-of-day	int	The hour to start the backup

# Function **SelectBlockVolume**

## Synopsis:

This function returns all block volumes from \$myBlockVolumes that match \$myVM

## Parameters:

Parameter	Value	Comments
\$myBlockVolumes	array	Dictionary object of block volumes created by GetBlockVolumes
\$myVM	array	Dictionary object describing a VM as created by GetVM

## Examples:

```
SelectBlockVolume $myBlockVolumes $myVM
```

## Return Values:

Key	Returned	Description
id	string	OCID of volume ID attachment
display-name	string	Name of the block volume
time-created	date	Date the object was created
volume-id	string	OCID of the block volume
availability-domain	string	Name of the availability domain where the block volume was created
is-pv-encryption-in-transit-enabled	boolean	Always False
device	string	Name of device as presented to VM
is-read-only	boolean	Always False
compartment-id	string	OCID of the compartment the object is a member of
lifecycle-state	string	Should always be ATTACHED when volume is attached to a a VM
is-shareable	boolean	True or False



Key	Returned	Description
attachment-type	string	Usually “paravirtualized”, but may be “iscsi”
instance-id	string	OCID of the VM the volume is attached to

# Function **SelectBootVolume**

## Synopsis:

This function returns all boot volumes from \$myBlockVolumes that match \$myVM

## Parameters:

Parameter	Value	Comments
\$myBootVolumes	array	Dictionary object of boot volumes created by GetBlockVolumes
\$myVM	array	Dictionary object describing a VM as created by GetVM

## Examples:

```
SelectBootVolume $myVM $myBlockVolumes
```

## Return Values:

Key	Returned	Description
id	string	OCID of the instance the boot volume is attached to
display-name	string	Usually "Remote boot attachment for instance"
lifecycle-state	string	Always ATTACHED
time-created	date	Date the object was created
is-pv-encryption-in-transit-enabled	boolean	Always False
boot-volume-id	string	OCID of the boot volume object
compartment-id	string	OCID of the compartment the object is a member of
instance-id	string	OCID of the VM the boot volume is attached to
availability-domain	string	Availability domain where the object exists

# Function **SelectLPG**

## Synopsis:

This function returns the dictionary object from \$myLPGs that matches the string value of \$myLpgName

## Parameters:

Parameter	Value	Comments
\$myLpgName	string	Name of the LPG to search for
\$myLPGs	array	Dictionary object describing all LPGs within a compartment

## Examples:

```
SelectLPG $myLpgName $myLPGs
```

## Return Values:

Key	Returned	Description
time-created	date	Date the object was created
display-name	string	Name of the LPG
peering-status	string	Should be "PEERED" when LPG has been peered with another LPG. WARNING! LPGs that were formerly peered cannot be peered again. The formerly peered LPG must be terminated and then recreated to be re-peered
is-cross-tenancy-peering	boolean	Always False in DKC deployments
vcn-id	string	OCID of the VCN the LPG is a member of
id	string	OCID of the LPG object
peer-advertised-cidr-details	array	CIDR routes the LPG will advertise
peering-status-details	string	Always "Connected to a peer."
compartment-id	string	OCID of the compartment the object is a member of
lifecycle-state	string	Should always be AVAILABLE

Key	Returned	Description
peer-advertised-cidr	string	The route advertised by the remote LPG this LPG is peered with
route-table-id	string	The OCID of the route table the LPG is associated with, null if not associated with a router table

## Function **SelectRouterTable**

### Synopsis:

This function returns the route table dictionary object that matches \$myRouterTableName from \$myRouterTables

### Parameters:

Parameter	Value	Comments
\$myRouterTableName	string	Name of the router table to search for
\$myRouteTables	array	Dictionary object describing all router tables that are associated with a VCN

### Examples:

```
SelectRouterTable $myRouterTableName $myRouteTables
```

### Return Values:

Key	Returned	Description
display-name	string	Name of the route table object
time-created	date	Date the object was created
route-table-rules	array	Array contains route table rules built for the route table object
compartment-id	string	OCID of the compartment the object is a member of
id	string	OCID of the route table object
lifecycle-state	string	Should always be AVAILABLE
vcn-id	string	OCID of the VCN the route table is a member of

# Function **SelectSubnet**

## Synopsis:

This function returns the subnet dictionary object that matches \$mySubnetName from \$mySubnets

## Parameters:

Parameter	Value	Comments
\$mySubnetName	string	Name of the subnet to search for
\$mySubnets	array	Dictionary object describing all subnets that are associated with a VCN

## Examples:

```
SelectSubnet $mySubnets $mySubnetName
```

## Return Values:

Key	Returned	Description
ipv6-cidr-block	string	The IP V6 CIDR assigned to the subnet
virtual-router-mac	string	The MAC address assigned to the VCN
compartment-id	string	The compartment OCID where the subnet resides
security-list-ids	array	The security list(s) applied to this subnet
dns-label	string	The subnet label assigned to the subnet
subnet-domain-name	string	The FQDN of the subnet
dhcp-options-id	string	The OCID of the DHCP object that defines DHCP options to the subnet
vcn-id	string	The OCID of the VCN to which the subnet is a member of
virtual-router-ip	string	The IP address assigned to the router for this subnet
display-name	string	The display name of the subnet
cidr-block	string	The CIDR block assigned to the subnet
lifecycle-state	string	The life cycle status of the subnet

Key	Returned	Description
availability-domain	string	The availability domain to which the subnet is applied. This is not used in DKC cloud deployments since all network resources in our builds are built across availability domains
ipv6-virtual-router-ip	string	The IPv6 address assigned to the subnet if IPv6 addresses are used
route-table-id	string	The OCID of the route table assigned to the subnet
time-created	date	The date the resource was created
prohibit-public-ip-on-vnic	boolean	Determines if public IPs can be assigned to resources within the subnet. Valid values are True or False
ipv6-public-cidr-block	string	The IPv6 CIDR assigned to the subnet if IPv6 addressing is used
id	string	The OCID of the subnet

# Function **SelectVcn**

## Synopsis:

This function returns the subnet dictionary object that matches \$myVcnName from \$myVCNs

## Parameters:

Parameter	Value	Comments
\$myVCNName	string	Name of the VCN to search for
\$myVCNs	array	Dictionary object describing all VCNs in a compartment

## Examples:

```
SelectVcn $myVCNs $myVcnName
```

## Return Values:

Key	Returned	Description
cidr-block	string	The CIDR of the VCN
compartment-id	string	The compartment OCID where the VCN resides
default-dhcp-options-id	string	The OCID of the DHCP object that defines DHCP options to the subnet
default-route-table-id	string	The default OCID of the router table applied to any subnet members of the VCN that do not have a defined route table
default-security-list-id	string	The default OCID of the security list applied to any subnet members of the VCN that do not have a defined security list
display-name	string	The display name of the VCN
dns-label	string	The DNS label for the VCN
id	string	The OCID of the VCN
ipv6-cidr-block	string	The IPv6 CIDR block if IPv6 addresses are used
ipv6-public-cidr-block	string	The IPv6 CIDR block if public IPv6 addresses are used
lifecycle-state	string	The life cycle state of the VCN
time-created	date	The date stamp when the VCN object was created



Key	Returned	Description
vcn-domain-name	string	The FQDN name for the VCN object