Builders

Builders

- Builders are responsible for creating machines and generating images from them for various platforms
- You can specify one or more builder blocks in a template.
- Each builder block can reference one or more source blocks.
- There are many configuration options available for a given builder. Some options are required, and others are optional. The optional are dependent on the what the builder type supports.

Popular Builders

✓ AWS AMI Builder

✓ Azure Resource Manager Builder

✓ VMware Builder from ISO

✓ VMware vSphere Clone Builder

✓ VMware vSphere Builder from ISO

✓ Docker Builder

✓ Google Compute Builder

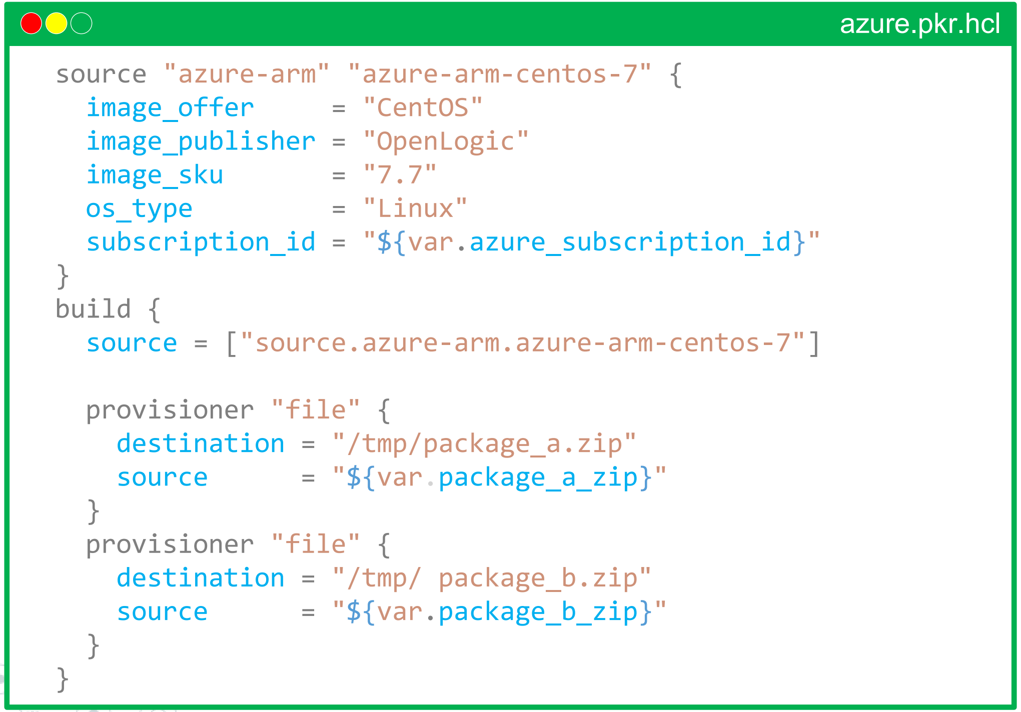
✓ Null Builder

✓ QEMU Builder

✓ Virtual Box Builder

packer.io/docs/builders

Builders



azure.pkr.hcl

```
source "azure-arm" "azure-arm-centos-7" {
  image_offer      = "CentOS"
  image_publisher = "OpenLogic"
  image_sku        = "7.7"
  os_type          = "Linux"
  subscription_id = "${var.azure_subscription_id}"
}
build {
  source = ["source.azure-arm.azure-arm-centos-7"]

  provisioner "file" {
    destination = "/tmp/package_a.zip"
    source      = "${var.package_a_zip}"
  }
  provisioner "file" {
    destination = "/tmp/ package_b.zip"
    source      = "${var.package_b_zip}"
  }
}
```

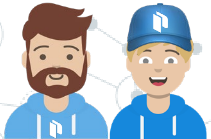
Uses the Azure builder to create a new Azure Machine Image

packer.io/docs/builders

Builders

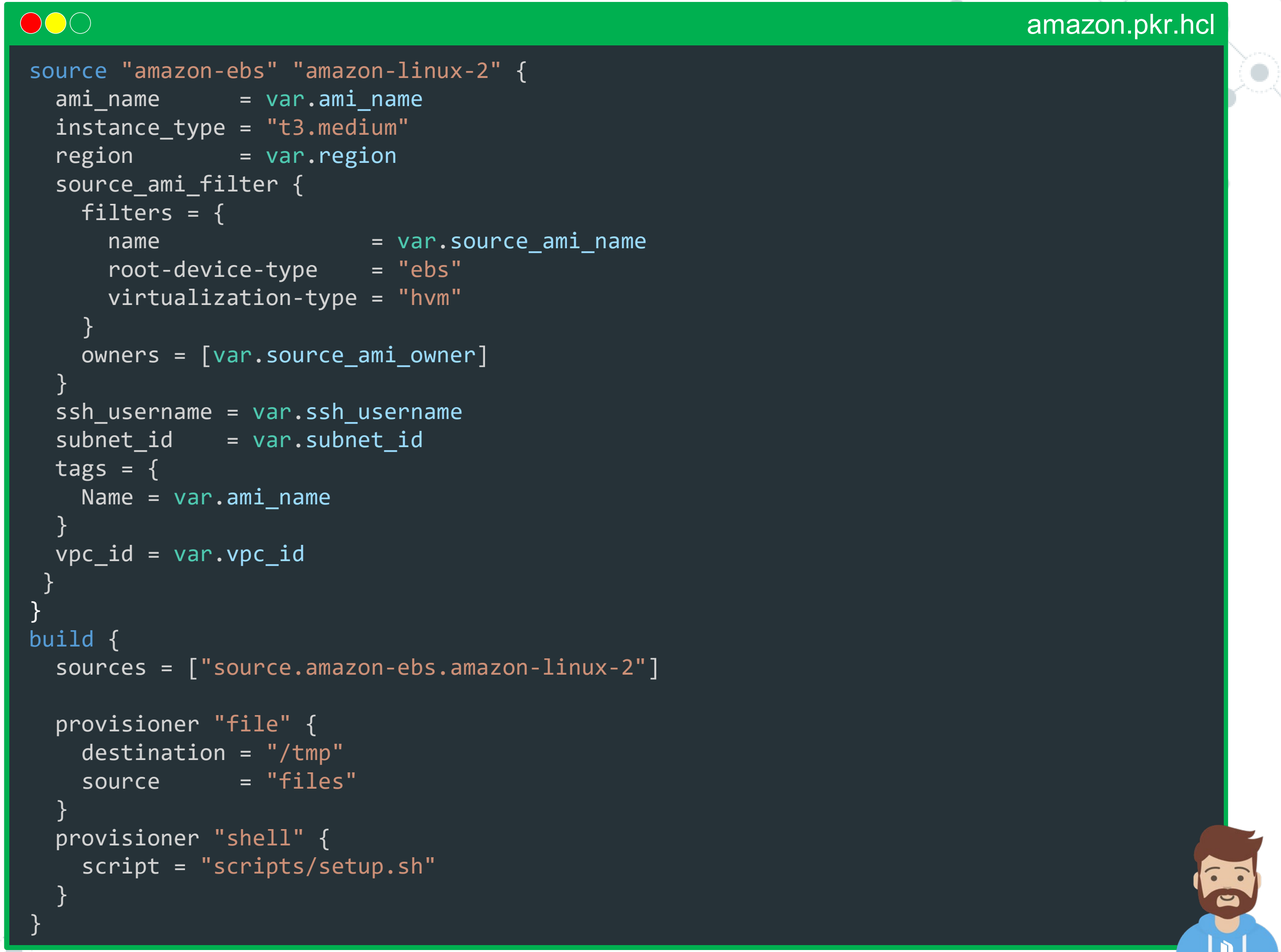
- aws
- Google Cloud
- PROFITBRICKS The IaaS-Company.
- HashiCorp Vagrant
- Azure
- Microsoft Hyper-V
- QEMU
- VirtualBox
- cloudstack open source cloud computing
- linode
- Scaleway
- vmware®
- Digital Ocean
- openstack.
- Tencent Cloud
- Yandex Cloud
- docker
- ORACLE
- Joyent TRITON
- Custom
- File
- Parallels™
- UCLOUD
- Community Supported

*Not an Exhaustive List



Examples of Packer
Builders

Builders



amazon.pkr.hcl

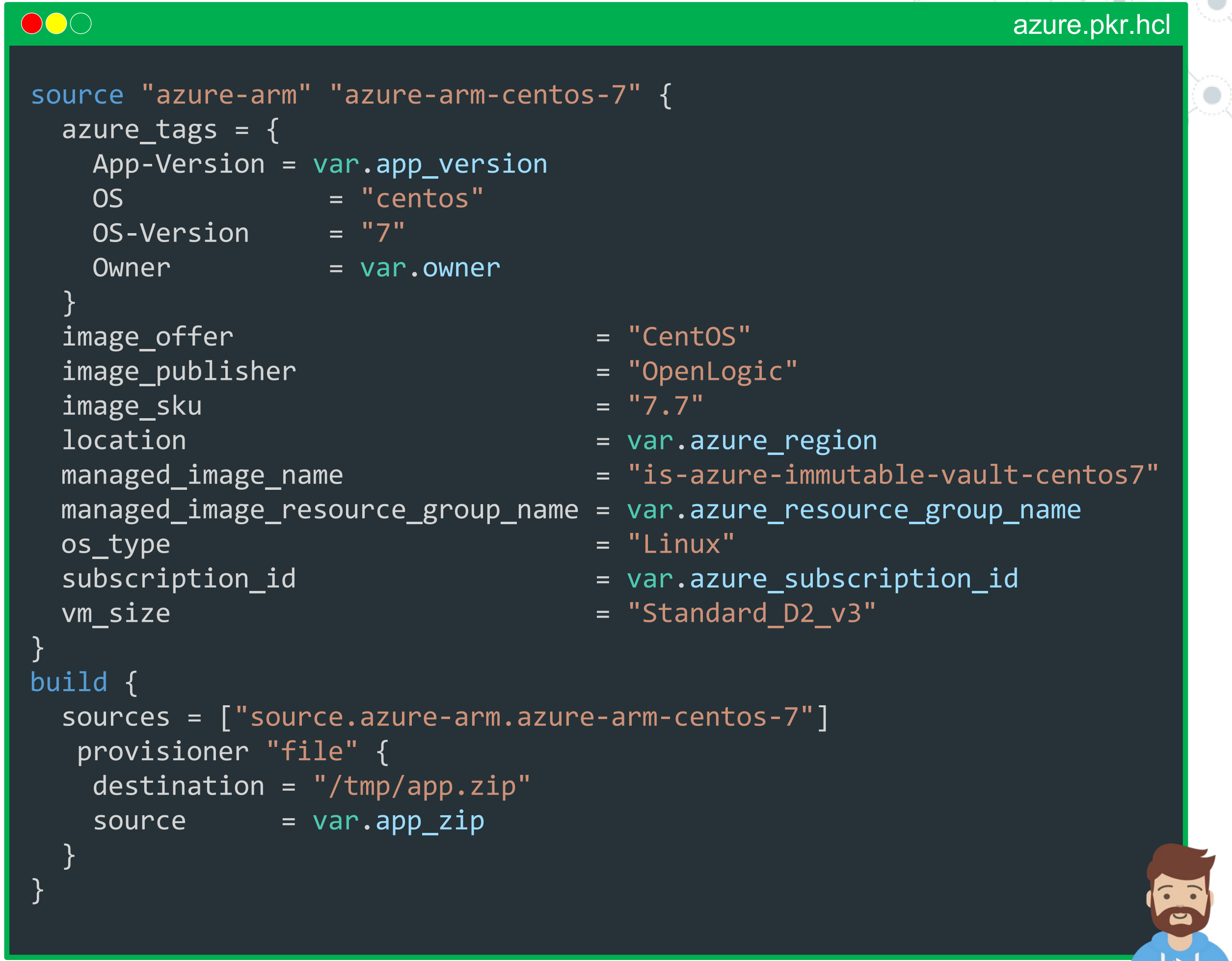
```
source "amazon-ebs" "amazon-linux-2" {
  ami_name      = var.ami_name
  instance_type = "t3.medium"
  region        = var.region
  source_ami_filter {
    filters = {
      name                = var.source_ami_name
      root-device-type    = "ebs"
      virtualization-type = "hvm"
    }
    owners = [var.source_ami_owner]
  }
  ssh_username = var.ssh_username
  subnet_id    = var.subnet_id
  tags = {
    Name = var.ami_name
  }
  vpc_id = var.vpc_id
 }
}
build {
  sources = ["source.amazon-ebs.amazon-linux-2"]

  provisioner "file" {
    destination = "/tmp"
    source      = "files"
  }
  provisioner "shell" {
    script = "scripts/setup.sh"
  }
}
```

Builders

Microsoft Azure

ARM Builder

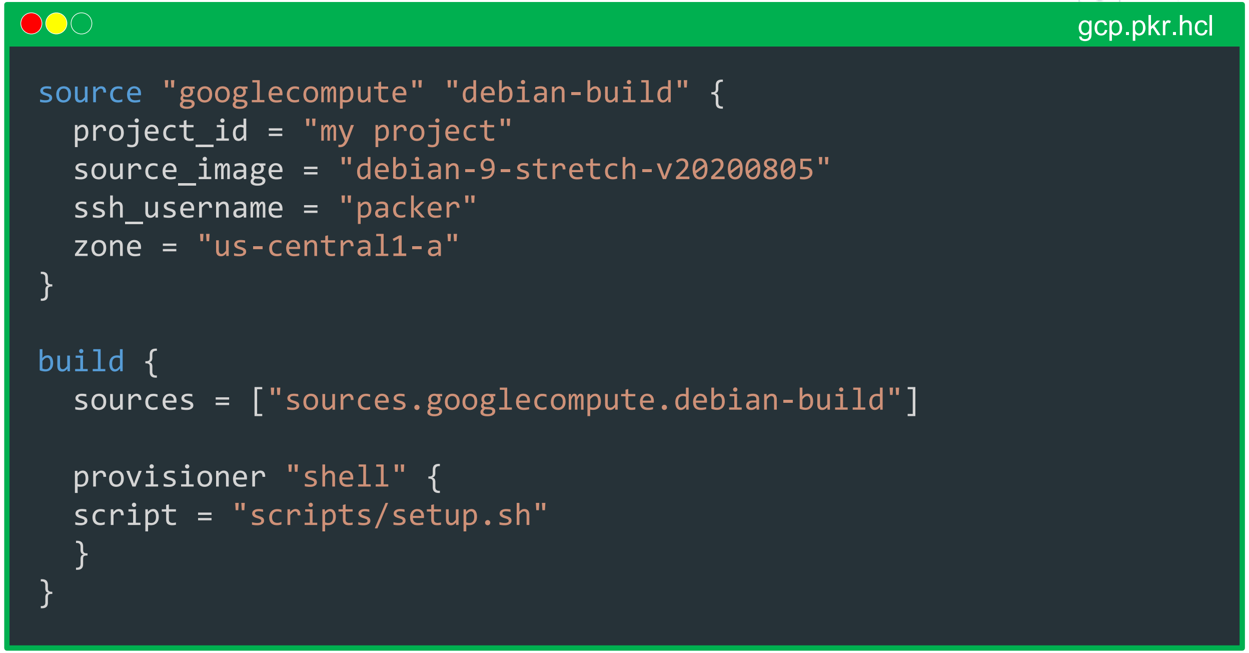


azure.pkr.hcl

```hcl
source "azure-arm" "azure-arm-centos-7" {
  azure_tags = {
    App-Version = var.app_version
    OS             = "centos"
    OS-Version     = "7"
    Owner          = var.owner
  }
  image_offer                       = "CentOS"
  image_publisher                   = "OpenLogic"
  image_sku                         = "7.7"
  location                          = var.azure_region
  managed_image_name                = "is-azure-immutable-vault-centos7"
  managed_image_resource_group_name = var.azure_resource_group_name
  os_type                           = "Linux"
  subscription_id                   = var.azure_subscription_id
  vm_size                           = "Standard_D2_v3"
}
build {
  sources = ["source.azure-arm.azure-arm-centos-7"]
   provisioner "file" {
    destination = "/tmp/app.zip"
    source      = var.app_zip
  }
}
```

Builders

Google Cloud Builder



gcp.pkr.hcl

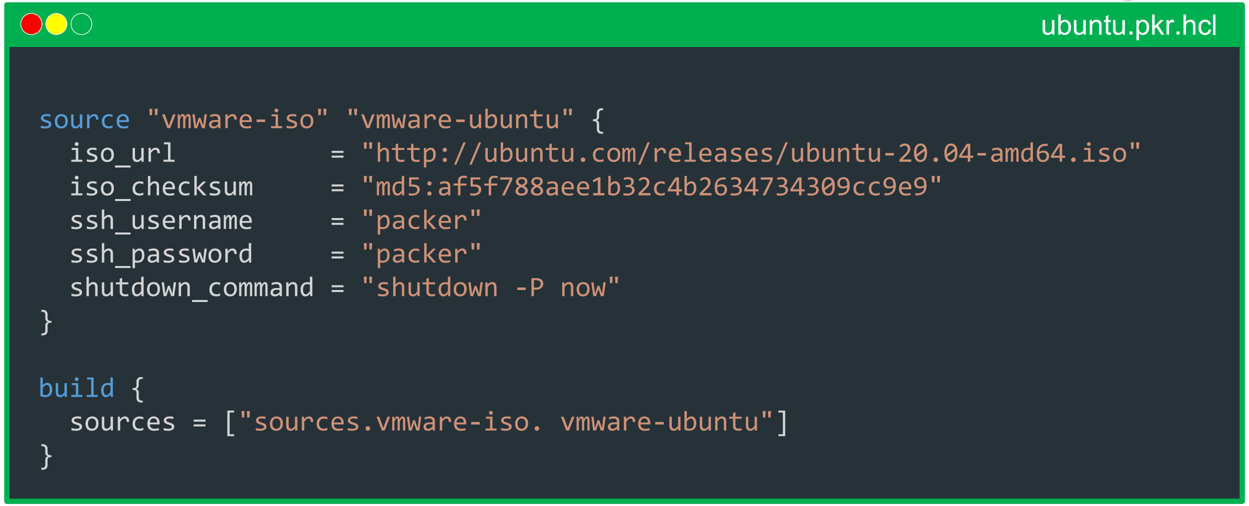
```
source "googlecompute" "debian-build" {
  project_id = "my project"
  source_image = "debian-9-stretch-v20200805"
  ssh_username = "packer"
  zone = "us-central1-a"
}

build {
  sources = ["sources.googlecompute.debian-build"]

  provisioner "shell" {
  script = "scripts/setup.sh"
  }
}
```

Builders

VMware ISO Builder



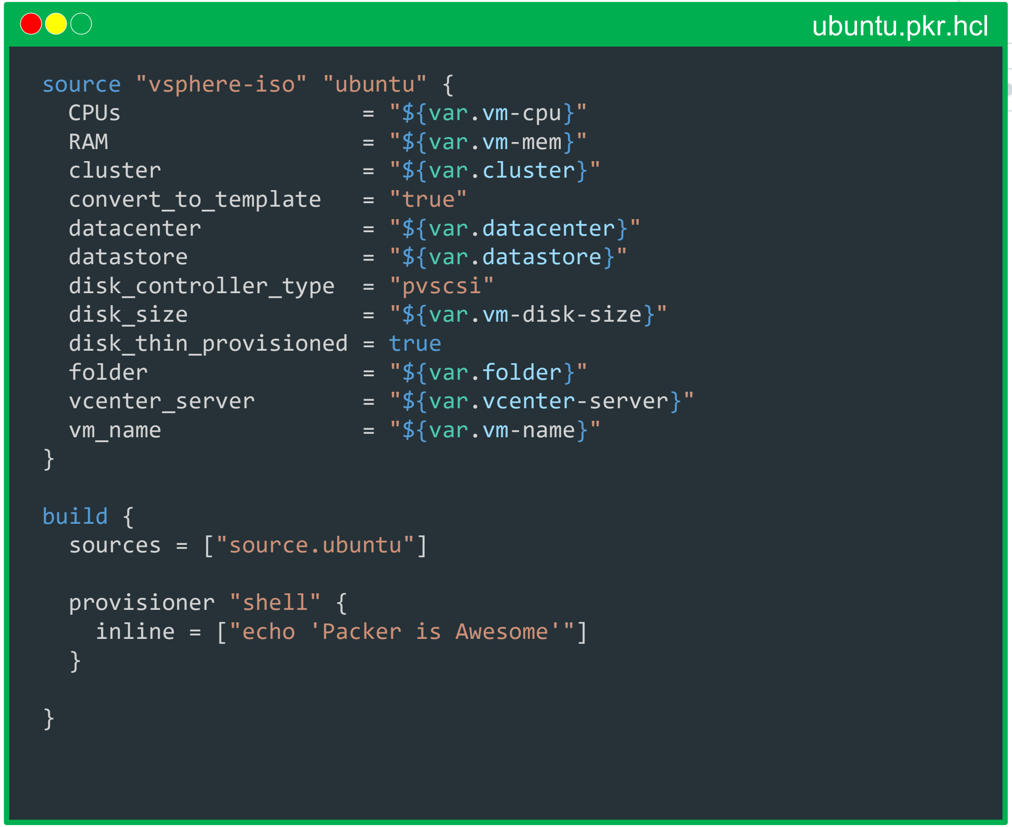
ubuntu.pkr.hcl

```
source "vmware-iso" "vmware-ubuntu" {
  iso_url          = "http://ubuntu.com/releases/ubuntu-20.04-amd64.iso"
  iso_checksum     = "md5:af5f788aee1b32c4b2634734309cc9e9"
  ssh_username     = "packer"
  ssh_password     = "packer"
  shutdown_command = "shutdown -P now"
}

build {
  sources = ["sources.vmware-iso. vmware-ubuntu"]
}
```

Builders

vSphere Clone Builder



ubuntu.pkr.hcl

```hcl
source "vsphere-iso" "ubuntu" {
  CPUs                  = "${var.vm-cpu}"
  RAM                   = "${var.vm-mem}"
  cluster               = "${var.cluster}"
  convert_to_template   = "true"
  datacenter            = "${var.datacenter}"
  datastore             = "${var.datastore}"
  disk_controller_type  = "pvscsi"
  disk_size             = "${var.vm-disk-size}"
  disk_thin_provisioned = true
  folder                = "${var.folder}"
  vcenter_server        = "${var.vcenter-server}"
  vm_name               = "${var.vm-name}"
}

build {
  sources = ["source.ubuntu"]

  provisioner "shell" {
    inline = ["echo 'Packer is Awesome'"]
  }

}
```

END OF SECTION