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创建一台云服务器

创建云服务器实例资源文件。

在Terraform-ksyun目录下创建一个instance.tf文件，编辑文件按照指定格式输入创建云服务器相关的配置参数，注意参数名称小写。

```
# vim instance.tf

//创建一台通用型N3云服务器

resource "ksyun_instance" "default" {
  image_id      = "48de6f74-e287-45df-b55e-94266d77483f"
  instance_type = "N3.2B"
  system_disk {
    disk_type = "SSD3.0"
    disk_size = 30
  }
  data_disk_gb = 0

  #only support part type

  subnet_id      = "e9b83973-b6aa-48b3-b400-d45cfdb832a4"
  instance_password = "Qwer1234"
  keep_image_login = false
  charge_type      = "Daily"
  purchase_time    = ""
  security_group_id = ["c628fd6a-c480-41aa-8fad-02879cfe60fb"]
  private_ip_address = "xuan-tf-update"
  instance_name     = "xuan-tf-update"
  instance_name_suffix = ""
  sriov_net_support = false
  project_id        = 0
  data_guard_id      = ""
}
```

执行 terraform plan 查看部署计划,这里参数前面的+代表新添加的资源，当销毁资源时，参数前面对应的符号会变为-；更改一些参数需要重新部署资源时，该资源前面的符号为-/+。

```
#terraform plan

[root@vm10-0-20-2 Terraform-ksyun]# terraform plan
Refreshing Terraform state in-memory prior to plan...
The refreshed state will be used to calculate this plan, but will not be
persisted to local or remote state storage.

ksyun_instance.default: Refreshing state... [id=88738dce-a4ee-4ef0-a5a8-dd812ceb15c5]

-----

An execution plan has been generated and is shown below.
Resource actions are indicated with the following symbols:
  + create

Terraform will perform the following actions:

# ksysun_instance.default will be created
+ resource "ksyun_instance" "default" {
  + address_project_id = (known after apply)
  + auto_scaling_type  = (known after apply)
  + availability_zone   = (known after apply)
  + availability_zone_name = (known after apply)
  + charge_type        = "Daily"
  + d_n_s1             = (known after apply)
  + d_n_s2             = (known after apply)
  + data_disk_gb       = 0
  + data_guard_id      = (known after apply)
  + force_delete       = (known after apply)
  + group_set          = (known after apply)
  + id                 = (known after apply)
  + image_id           = "48de6f74-e287-45df-b55e-94266d77483f"
  + instance_configure = (known after apply)
  + instance_name      = "terraform-test01"
  + instance_name_suffix = (known after apply)
  + instance_password  = "Qwer1234"
  + instance_state     = (known after apply)
  + instance_type      = "N3.2B"
  + is_show_sriov_net_support = (known after apply)
  + keep_image_login   = false
  + key_id             = (known after apply)
  + mac_address        = (known after apply)
  + monitoring         = (known after apply)
  + network_interface_id = (known after apply)
  + network_interface_type = (known after apply)
  + private_ip_address = (known after apply)
  + product_type       = (known after apply)
  + product_what       = (known after apply)
  + project_id         = 0
  + purchase_time      = 1
  + security_group_id  = [
    "c628fd6a-c480-41aa-8fad-02879cfe60fb",
  ]
}
```

执行 terraform apply 进行资源创建

```
#terraform apply

[root@vm10-0-20-2 Terraform-ksyun]# terraform apply
ksyun_instance.default: Refreshing state... [id=88738dce-a4ee-4ef0-a5a8-dd812ceb15c5]

An execution plan has been generated and is shown below.
Resource actions are indicated with the following symbols:
  + create

Terraform will perform the following actions:

# ksysun_instance.default will be created
+ resource "ksyun_instance" "default" {
  + address_project_id = (known after apply)
  + auto_scaling_type  = (known after apply)
  + availability_zone   = (known after apply)
  + availability_zone_name = (known after apply)
  + charge_type        = "Daily"
}
```

输入 yes，显示成功创建资源

```
Enter a value: yes

ksyun_instance.default: Creating...
ksyun_instance.default: Still creating... [10s elapsed]
ksyun_instance.default: Still creating... [20s elapsed]
ksyun_instance.default: Still creating... [30s elapsed]
ksyun_instance.default: Creation complete after 31s [id=64a539dc-65bd-4135-8ec4-132b53d151c5]

Apply complete! Resources: 1 added, 0 changed, 0 destroyed.
You have new mail in /var/spool/mail/root
[root@vm10-0-20-2 Terraform-ksyun]#
```

控制台查看云服务器资源创建成功



创建一个MySQL高可用实例

在Terraform-ksyun目录下创建一个instance.tf文件，编辑文件按照指定格式输入创建MySQL高可用实例相关的配置参数，注意参数名称小写。 »Create a RDS MySQL instance

```
provider "ksyun" {
  region = "cn-shanghai-3"
  access_key = ""
  secret_key = ""
}

variable "available_zone" {
  default = "cn-shanghai-3a"
}

resource "ksyun_vpc" "default" {
  vpc_name = "ksyun-vpc-tf"
  cidr_block = "10.7.0.0/21"
}

resource "ksyun_subnet" "foo" {
  subnet_name = "ksyun-subnet-tf"
  cidr_block = "10.7.0.0/21"
  subnet_type = "Reserve"
  dhcp_ip_from = "10.7.0.2"
  dhcp_ip_to = "10.7.0.253"
  vpc_id = "${ksyun_vpc.default.id}"
  gateway_ip = "10.7.0.1"
  dns1 = "198.18.254.41"
  dns2 = "198.18.254.40"
  availability_zone = "${var.available_zone}"
}

resource "ksyun_krds_security_group" "krds_sec_group_14" {
  output_file = "output_file"
  security_group_name = "terraform-security-group-14"
  security_group_description = "terraform-security-group-14"
  security_group_rule {
    security_group_rule_protocol = "182.133.0.0/16"
    security_group_rule_name = "asdf"
  }
  security_group_rule {
    security_group_rule_protocol = "182.134.0.0/16"
    security_group_rule_name = "asdf2"
  }
}

resource "ksyun_krds" "my_rds_xx" {
  output_file = "output_file"
  db_instance_class = "db.ram.2|db.disk.21"
  db_instance_name = "houbin-terraform-1-n"
  db_instance_type = "HRDS"
  engine = "mysql"
  engine_version = "5.7"
  master_user_name = "admin"
  master_user_password = "123qweASD123"
  vpc_id = "${ksyun_vpc.default.id}"
  subnet_id = "${ksyun_subnet.foo.id}"
  bill_type = "DAY"
  security_group_id = "${ksyun_krds_security_group.krds_sec_group_14.id}"
  preferred_backup_time = "01:00-02:00"
  availability_zone_1 = "cn-shanghai-3a"
  availability_zone_2 = "cn-shanghai-3b"
  instance_has_eip = true
}
```

执行 terraform plan 查看部署计划,这里参数前面的+代表新添加的资源，当销毁资源时，参数前面对应的符号会变为-；更改一些参数需要重新部署资源时，该资源前面的符号为-/+。

```
#terraform plan
```

```
1031248comdeMBP:rds 1031248990qq.com$ terraform plan
Refreshing Terraform state in-memory prior to plan...
The refreshed state will be used to calculate this plan, but will not be
persisted to local or remote state storage.
```

An execution plan has been generated and is shown below.
Resource actions are indicated with the following symbols:

+ create

Terraform will perform the following actions:

```
# ksyun_krds.houbin_terraform_4 will be created
+ resource "ksyun_krds" "houbin_terraform_4" {
  + bill_type           = "DAY"
  + db_instance_class   = "db.ram.2|db.disk.21"
  + db_instance_name    = "houbin_terraform_1-n"
  + db_instance_type    = "HRDS"
  + engine              = "mysql"
  + engine_version      = "5.5"
  + id                  = (known after apply)
  + master_user_name    = "admin"
  + master_user_password = "123qweASD123"
  + output_file         = "output_file"
  + preferred_backup_time = "01:00-02:00"
  + security_group_id   = (known after apply)
  + subnet_id           = (known after apply)
  + vpc_id              = (known after apply)

  + krds {
    + audit                  = (known after apply)
    + availability_zone      = (known after apply)
    + bill_type             = (known after apply)
    + bill_type_id          = (known after apply)
    + datastore_version_id  = (known after apply)

    + db_instance_identifier = (known after apply)
    + db_instance_name       = (known after apply)
    + db_instance_status     = (known after apply)
    + db_instance_type       = (known after apply)
    + db_parameter_group_id  = (known after apply)
    + disk_used              = (known after apply)
    + engine                 = (known after apply)
    + engine_version         = (known after apply)
    + group_id               = (known after apply)
    + instance_create_time   = (known after apply)
    + master_availability_zone = (known after apply)
    + master_user_name       = (known after apply)
    + multi_availability_zone = (known after apply)
    + order_id               = (known after apply)
    + order_source           = (known after apply)
    + order_type             = (known after apply)
    + order_use              = (known after apply)
    + port                   = (known after apply)
    + preferred_backup_time  = (known after apply)
    + product_id             = (known after apply)
    + product_what           = (known after apply)
    + project_id             = (known after apply)
    + project_name           = (known after apply)
    + publicly_accessible    = (known after apply)
    + region                 = (known after apply)
    + security_group_id      = (known after apply)
    + service_end_time       = (known after apply)
    + service_start_time     = (known after apply)
    + slave_availability_zone = (known after apply)
    + sub_order_id           = (known after apply)
    + subnet_id              = (known after apply)
    + vip                    = (known after apply)
    + vpc_id                 = (known after apply)
  }
}
```

```

+ db_instance_class {
+   disk      = (known after apply)
+   id        = (known after apply)
+   iops       = (known after apply)
+   max_conn  = (known after apply)
+   mem        = (known after apply)
+   ram        = (known after apply)
+   vcpu       = (known after apply)
+ }

+ db_source {
+   db_instance_identifier = (known after apply)
+   db_instance_name       = (known after apply)
+   db_instance_type       = (known after apply)
+ }

+ read_replica_db_instance_identifiers {
+   id                  = (known after apply)
+   read_replica_db_instance_identifier = (known after apply)
+   vip                 = (known after apply)
+ }
}

+ parameters {
+   name = "auto_increment_increment"
+   value = "8"
+ }
+ parameters {
+   name = "binlog_format"
+   value = "ROW"
+ }
}

# ksyun_krds_security_group.krds_sec_group_233 will be created
+ resource "ksyun_krds_security_group" "krds_sec_group_233" {
+   id          = (known after apply)
+   output_file = "output_file"

+   security_group_description = "terraform-security-group-233"
+   security_group_name        = "terraform_security_group_233"

+   security_group_rule {
+     security_group_rule_name = "asdf"
+     security_group_rule_protocol = "182.133.0.0/16"
+   }
+   security_group_rule {
+     security_group_rule_name = "asdf2"
+     security_group_rule_protocol = "182.134.0.0/16"
+   }

+   security_groups {
+     created          = (known after apply)
+     security_group_description = (known after apply)
+     security_group_id = (known after apply)
+     security_group_name = (known after apply)

+     instances {
+       created          = (known after apply)
+       db_instance_identifier = (known after apply)
+       db_instance_name = (known after apply)
+       db_instance_type = (known after apply)
+       vip              = (known after apply)
+     }

+     security_group_rules {
+       created          = (known after apply)
+       security_group_rule_id = (known after apply)
+       security_group_rule_name = (known after apply)
+       security_group_rule_protocol = (known after apply)
+     }
+   }
}

# ksyun_subnet.foo will be created
+ resource "ksyun_subnet" "foo" {

```

```

+ availability_zone = "cn-shanghai-3a"
+ cidr_block       = "10.7.0.0/21"
+ dhcp_ip_from     = "10.7.0.2"
+ dhcp_ip_to       = "10.7.0.253"
+ dns1             = "198.18.254.41"
+ dns2             = "198.18.254.40"
+ gateway_ip       = "10.7.0.1"
+ id               = (known after apply)
+ subnet_name      = "ksyun-subnet-tf"
+ subnet_type      = "Reserve"
+ vpc_id           = (known after apply)
}

# ksyun_vpc.default will be created
+ resource "ksyun_vpc" "default" {
+   cidr_block = "10.7.0.0/21"
+   id        = (known after apply)
+   is_default = false
+   vpc_name  = "ksyun-vpc-tf"
}

```

Plan: 4 to add, 0 to change, 0 to destroy.

Note: You didn't specify an "-out" parameter to save this plan, so Terraform can't guarantee that exactly these actions will be performed if "terraform apply" is subsequently run.

1031248comdeMBP:rds 1031248990qq.com\$ █

执行 terraform apply 进行资源创建

#terraform apply

```

1031248comdeMBP:rds 1031248990qq.com$ terraform apply
ksyun_vpc.default: Refreshing state... [id=28a84f4b-fe26-4dba-a62b-6d695a6d5c00]
ksyun_krds_security_group.krds_sec_group_233: Refreshing state... [id=2616]
ksyun_subnet.foo: Refreshing state... [id=f5070d32-f1dd-4495-ac7a-cf4c8b849e56]

```

An execution plan has been generated and is shown below.
Resource actions are indicated with the following symbols:
+ create

Terraform will perform the following actions:

```

# ksyun_krds.houbin_terraform_4 will be created
+ resource "ksyun_krds" "houbin_terraform_4" {
+   bill_type           = "DAY"
+   db_instance_class   = "db.ram.2|db.disk.100"
+   db_instance_name    = "houbin_terraform_1-n"
+   db_instance_type    = "HRDS"
+   engine              = "mysql"
+   engine_version      = "5.5"
+   id                  = (known after apply)
+   master_user_name    = "admin"
+   master_user_password = "123qweASD123"
+   output_file         = "output_file"
+   preferred_backup_time = "01:00-02:00"
+   security_group_id    = "2616"
+   subnet_id           = "f5070d32-f1dd-4495-ac7a-cf4c8b849e56"
+   vpc_id              = "28a84f4b-fe26-4dba-a62b-6d695a6d5c00"

+   krds {
+     audit              = (known after apply)
+     availability_zone  = (known after apply)

```

```
+ bill_type                = (known after apply)
+ bill_type_id             = (known after apply)
+ datastore_version_id     = (known after apply)
+ db_instance_identifier   = (known after apply)
+ db_instance_name         = (known after apply)
+ db_instance_status       = (known after apply)
+ db_instance_type         = (known after apply)
+ db_parameter_group_id    = (known after apply)
+ disk_used                = (known after apply)
+ engine                   = (known after apply)
+ engine_version           = (known after apply)
+ group_id                 = (known after apply)
+ instance_create_time     = (known after apply)
+ master_availability_zone = (known after apply)
+ master_user_name         = (known after apply)
+ multi_availability_zone  = (known after apply)
+ order_id                 = (known after apply)
+ order_source             = (known after apply)
+ order_type               = (known after apply)
+ order_use                = (known after apply)
+ port                     = (known after apply)
+ preferred_backup_time    = (known after apply)
+ product_id               = (known after apply)
+ product_what             = (known after apply)
+ project_id               = (known after apply)
+ project_name             = (known after apply)
+ publicly_accessible      = (known after apply)
+ region                   = (known after apply)
+ security_group_id        = (known after apply)
+ service_end_time         = (known after apply)
+ service_start_time       = (known after apply)
```

输入 yes，显示成功创建资源

```
+ parameters {
+   name = "binlog_format"
+   value = "ROW"
+ }
```

Plan: 1 to add, 0 to change, 0 to destroy.

Do you want to perform these actions?
Terraform will perform the actions described above.
Only 'yes' will be accepted to approve.

Enter a value: yes

Plan: 1 to add, 0 to change, 0 to destroy.

Do you want to perform these actions?
Terraform will perform the actions described above.
Only 'yes' will be accepted to approve.

Enter a value: yes

```
ksyun_krds.houbin_terraform_4: Creating...
ksyun_krds.houbin_terraform_4: Still creating... [10s elapsed]
ksyun_krds.houbin_terraform_4: Still creating... [20s elapsed]
ksyun_krds.houbin_terraform_4: Still creating... [30s elapsed]
ksyun_krds.houbin_terraform_4: Still creating... [40s elapsed]
ksyun_krds.houbin_terraform_4: Still creating... [50s elapsed]
ksyun_krds.houbin_terraform_4: Still creating... [1m0s elapsed]
ksyun_krds.houbin_terraform_4: Still creating... [1m10s elapsed]
ksyun_krds.houbin_terraform_4: Still creating... [1m20s elapsed]
ksyun_krds.houbin_terraform_4: Still creating... [1m30s elapsed]
ksyun_krds.houbin_terraform_4: Still creating... [1m40s elapsed]
ksyun_krds.houbin_terraform_4: Still creating... [1m50s elapsed]
ksyun_krds.houbin_terraform_4: Still creating... [2m0s elapsed]
ksyun_krds.houbin_terraform_4: Still creating... [2m10s elapsed]
ksyun_krds.houbin_terraform_4: Still creating... [2m20s elapsed]
ksyun_krds.houbin_terraform_4: Still creating... [2m30s elapsed]
ksyun_krds.houbin_terraform_4: Still creating... [2m40s elapsed]
ksyun_krds.houbin_terraform_4: Creation complete after 2m41s [id=4e6c8221-287e-435a-ae8a-e0c89475ad20]
```

```
Apply complete! Resources: 1 added, 0 changed, 0 destroyed.
1031248comdeMBP: rds 1031248990qq.com$ █
```

控制台查看MySQL高可用实例创建成功

| | | | | | | | | | | |
|--------------------------|----------------------|-----|----------|------|------|------|-----|-----|-------|----|
| <input type="checkbox"/> | houbin_terraform_1-n | 运行中 | 10.7.0.3 | 3306 | 默认项目 | 多可用区 | 高可用 | 2 G | 100 G | -- |
|--------------------------|----------------------|-----|----------|------|------|------|-----|-----|-------|----|

创建一个MySQL只读实例

在Terraform-ksyun目录下创建一个instance.tf文件，编辑文件按照指定格式输入创建MySQL只读实例相关的配置参数，注意参数名称小写。 »Create a RDS Read Only MySQL instance

```
resource "ksyun_krds_rr" "my_rds_rr" {
  output_file = "output_file"
  db_instance_identifier = "*****"
  db_instance_class = "db.ram.2|db.disk.50"
  db_instance_name = "houbin_terraform_888_rr_1"
  bill_type = "DAY"
  security_group_id = "*****"

  parameters {
    name = "auto_increment_increment"
    value = "7"
  }

  parameters {
    name = "binlog_format"
    value = "ROW"
  }
}
```

执行 terraform plan 查看部署计划, 这里参数前面的+代表新添加的资源, 当销毁资源时, 参数前面对应的符号会变为-; 更改一些参数需要重新部署资源时, 该资源前面的符号为-/+。

```
#terraform plan
```

```
1031248comdeMBP:rds-rr 1031248990qq.com$ terraform plan
Refreshing Terraform state in-memory prior to plan...
The refreshed state will be used to calculate this plan, but will not be
persisted to local or remote state storage.
```

```
-----

An execution plan has been generated and is shown below.
Resource actions are indicated with the following symbols:
+ create
```

Terraform will perform the following actions:

```
# ksyun_krds.houbin_terraform_777 will be created
+ resource "ksyun_krds" "houbin_terraform_777" {
  + bill_type           = "DAY"
  + db_instance_class   = "db.ram.2|db.disk.100"
  + db_instance_name    = "houbin_terraform_1-n"
  + db_instance_type    = "HRDS"
  + engine              = "mysql"
  + engine_version      = "5.5"
  + id                  = (known after apply)
  + master_user_name    = "admin"
  + master_user_password = "123qweASD123"
  + output_file         = "output_file"
  + preferred_backup_time = "01:00-02:00"
  + security_group_id   = (known after apply)
```

```
Plan: 5 to add, 0 to change, 0 to destroy.
```

```
Note: You didn't specify an "-out" parameter to save this plan, so Terraform
can't guarantee that exactly these actions will be performed if
"terraform apply" is subsequently run.
```

```
1031248comdeMBP:rds-rr 1031248990qq.com$
```

执行 terraform apply 进行资源创建

```
#terraform apply
```

```
1031248comdeMBP:rds-rr 1031248990qq.com$ terraform apply
```

```
An execution plan has been generated and is shown below.
Resource actions are indicated with the following symbols:
+ create
```

Terraform will perform the following actions:

```
# ksyun_krds.houbin_terraform_777 will be created
+ resource "ksyun_krds" "houbin_terraform_777" {
  + bill_type           = "DAY"
  + db_instance_class   = "db.ram.2|db.disk.100"
  + db_instance_name    = "houbin_terraform_1-n"
  + db_instance_type    = "HRDS"
  + engine              = "mysql"
  + engine_version      = "5.5"
  + id                  = (known after apply)
  + master_user_name    = "admin"
  + master_user_password = "123qweASD123"
  + output_file         = "output_file"
  + preferred_backup_time = "01:00-02:00"
  + security_group_id   = (known after apply)
  + subnet_id           = (known after apply)
  + vpc_id              = (known after apply)

  + krds {
    + audit = (known after apply)
```


输入 yes，显示成功创建资源

```
Plan: 3 to add, 0 to change, 0 to destroy.
```

```
Do you want to perform these actions?
```

```
Terraform will perform the actions described above.
```

```
Only 'yes' will be accepted to approve.
```

```
Enter a value: yes
```

```
ksyun_krds_security_group.krds_sec_group_233: Creating...
```

```
ksyun_krds_security_group.krds_sec_group_233: Creation complete after 1s [id=2617]
```

```
ksyun_krds.houbin_terraform_777: Creating...
```

```
Plan: 3 to add, 0 to change, 0 to destroy.
```

```
Do you want to perform these actions?
```

```
Terraform will perform the actions described above.
```

```
Only 'yes' will be accepted to approve.
```

```
Enter a value: yes
```

```
ksyun_krds_security_group.krds_sec_group_233: Creating...
```

```
ksyun_krds_security_group.krds_sec_group_233: Creation complete after 1s [id=2617]
```

```
ksyun_krds.houbin_terraform_777: Creating...
```

```
ksyun_krds.houbin_terraform_777: Still creating... [10s elapsed]
```

```
ksyun_krds.houbin_terraform_777: Still creating... [20s elapsed]
```

```
ksyun_krds.houbin_terraform_777: Still creating... [30s elapsed]
```

```
ksyun_krds.houbin_terraform_777: Still creating... [40s elapsed]
```

```
ksyun_krds.houbin_terraform_777: Still creating... [50s elapsed]
```

```
ksyun_krds.houbin_terraform_777: Still creating... [1m0s elapsed]
```

```
ksyun_krds.houbin_terraform_777: Still creating... [1m10s elapsed]
```

```
ksyun_krds.houbin_terraform_777: Still creating... [1m20s elapsed]
```

```
ksyun_krds.houbin_terraform_777: Still creating... [1m30s elapsed]
```

```
ksyun_krds.houbin_terraform_777: Still creating... [1m40s elapsed]
```

```
ksyun_krds.houbin_terraform_777: Still creating... [1m50s elapsed]
```

```
ksyun_krds.houbin_terraform_777: Still creating... [2m0s elapsed]
```

```
ksyun_krds.houbin_terraform_777: Still creating... [2m10s elapsed]
```

```
ksyun_krds.houbin_terraform_777: Still creating... [2m20s elapsed]
```

```
ksyun_krds.houbin_terraform_777: Still creating... [2m30s elapsed]
```

```
ksyun_krds.houbin_terraform_777: Still creating... [2m40s elapsed]
```

```
ksyun_krds.houbin_terraform_777: Still creating... [2m50s elapsed]
```

```
ksyun_krds.houbin_terraform_777: Creation complete after 2m52s [id=dc48606c-e04a-4868-b76a-88a3e3a24fa5]
```

```
ksyun_krds_rr.rds-rr-1: Creating...
```

```
ksyun_krds_rr.rds-rr-1: Still creating... [10s elapsed]
```

```
ksyun_krds_rr.rds-rr-1: Still creating... [20s elapsed]
```

```
ksyun_krds_security_group.krds_sec_group_233: Creating...
```

```
ksyun_krds_security_group.krds_sec_group_233: Creation complete after 1s [id=2617]
```

```
ksyun_krds.houbin_terraform_777: Creating...
```

```
ksyun_krds.houbin_terraform_777: Still creating... [10s elapsed]
```

```
ksyun_krds.houbin_terraform_777: Still creating... [20s elapsed]
```

```
ksyun_krds.houbin_terraform_777: Still creating... [30s elapsed]
```

```
ksyun_krds.houbin_terraform_777: Still creating... [40s elapsed]
```

```
ksyun_krds.houbin_terraform_777: Still creating... [50s elapsed]
```

```
ksyun_krds.houbin_terraform_777: Still creating... [1m0s elapsed]
```

```
ksyun_krds.houbin_terraform_777: Still creating... [1m10s elapsed]
```

```
ksyun_krds.houbin_terraform_777: Still creating... [1m20s elapsed]
```

```
ksyun_krds.houbin_terraform_777: Still creating... [1m30s elapsed]
```

```
ksyun_krds.houbin_terraform_777: Still creating... [1m40s elapsed]
```

```
ksyun_krds.houbin_terraform_777: Still creating... [1m50s elapsed]
```

```
ksyun_krds.houbin_terraform_777: Still creating... [2m0s elapsed]
```

```
ksyun_krds.houbin_terraform_777: Still creating... [2m10s elapsed]
```

```
ksyun_krds.houbin_terraform_777: Still creating... [2m20s elapsed]
```

```
ksyun_krds.houbin_terraform_777: Still creating... [2m30s elapsed]
```

```
ksyun_krds.houbin_terraform_777: Still creating... [2m40s elapsed]
```

```
ksyun_krds.houbin_terraform_777: Still creating... [2m50s elapsed]
```

```
ksyun_krds.houbin_terraform_777: Creation complete after 2m52s [id=dc48606c-e04a-4868-b76a-88a3e3a24fa5]
```

```
ksyun_krds_rr.rds-rr-1: Creating...
```

```
ksyun_krds_rr.rds-rr-1: Still creating... [10s elapsed]
```

```
ksyun_krds_rr.rds-rr-1: Still creating... [20s elapsed]
```

```
ksyun_krds_rr.rds-rr-1: Still creating... [30s elapsed]
```

```
ksyun_krds_rr.rds-rr-1: Still creating... [40s elapsed]
```

```
ksyun_krds_rr.rds-rr-1: Still creating... [50s elapsed]
```

```
ksyun_krds_rr.rds-rr-1: Still creating... [1m0s elapsed]
```

```
ksyun_krds_rr.rds-rr-1: Still creating... [1m10s elapsed]
```

```
ksyun_krds_rr.rds-rr-1: Still creating... [1m20s elapsed]
```

```
ksyun_krds_rr.rds-rr-1: Still creating... [1m30s elapsed]
```

```
ksyun_krds_rr.rds-rr-1: Creation complete after 1m39s [id=51762f22-3476-4842-b061-6c973a357e4e]
```

```
Apply complete! Resources: 3 added, 0 changed, 0 destroyed.
```

```
1031248comdeMBP:rds-rr 1031248990qq.com$
```

控制台查看MySQL只读实例创建成功

| | | | | | | | | | | |
|--------------------------|---------------------------|-----|----------|------|------|------|-----|-----|-------|----|
| <input type="checkbox"/> | houbin_terraform_777_rr_1 | 运行中 | 10.7.0.4 | 3306 | 默认项目 | 单可用区 | 只读型 | 4 G | 100 G | -- |
|--------------------------|---------------------------|-----|----------|------|------|------|-----|-----|-------|----|

创建一个安全组

在Terraform-ksyun目录下创建一个instance.tf文件，编辑文件按照指定格式输入创建安全组相关的配置参数，注意参数名称小写。 »Create a RDS Security GroupL instance

```
»Create a RDS Security Group instance
resource "ksyun_krds_security_group" "krds_sec_group_13" {
  output_file = "output_file"
  security_group_name = "terraform_security_group_13"
  security_group_description = "terraform-security-group-13"
  security_group_rule {
    security_group_rule_protocol = "182.133.0.0/16"
    security_group_rule_name = "asdf"
  }
  security_group_rule {
    security_group_rule_protocol = "182.134.0.0/16"
    security_group_rule_name = "asdf2"
  }
}
```

执行 terraform plan 查看部署计划, 这里参数前面的+代表新添加的资源, 当销毁资源时, 参数前面对应的符号会变为-; 更改一些参数需要重新部署资源时, 该资源前面的符号为-/+。

```
#terraform plan
```

```
1031248comdeMBP:rds-sec 1031248990qq.com$ terraform plan
Refreshing Terraform state in-memory prior to plan...
The refreshed state will be used to calculate this plan, but will not be
persisted to local or remote state storage.
```

```
-----
An execution plan has been generated and is shown below.
Resource actions are indicated with the following symbols:
+ create
```

Terraform will perform the following actions:

```
# ksyun_krds_security_group.krds_sec_group_13 will be created
+ resource "ksyun_krds_security_group" "krds_sec_group_13" {
+   id                = (known after apply)
+   output_file       = "output_file"
+   security_group_description = "terraform-security-group-13"
+   security_group_name   = "terraform_security_group_13"

+   security_group_rule {
+     security_group_rule_name   = "wtf"
+     security_group_rule_protocol = "182.133.0.0/16"
```

```
+   instances {
+     created                = (known after apply)
+     db_instance_identifier = (known after apply)
+     db_instance_name       = (known after apply)
+     db_instance_type       = (known after apply)
+     vip                    = (known after apply)
+   }

+   security_group_rules {
+     created                = (known after apply)
+     security_group_rule_id = (known after apply)
+     security_group_rule_name = (known after apply)
+     security_group_rule_protocol = (known after apply)
+   }
}
```

Plan: 1 to add, 0 to change, 0 to destroy.

```
-----
Note: You didn't specify an "-out" parameter to save this plan, so Terraform
can't guarantee that exactly these actions will be performed if
"terraform apply" is subsequently run.
```

```
1031248comdeMBP:rds-sec 1031248990qq.com$ █
```

执行 terraform apply 进行资源创建

```
#terraform apply
```

```
1031248comdeMBP:rds-sec 1031248990qq.com$ terraform apply
```

An execution plan has been generated and is shown below.
Resource actions are indicated with the following symbols:
+ create

Terraform will perform the following actions:

```
# ksyun_krds_security_group.krds_sec_group_13 will be created
+ resource "ksyun_krds_security_group" "krds_sec_group_13" {
+   id                  = (known after apply)
+   output_file         = "output_file"
+   security_group_description = "terraform-security-group-13"
+   security_group_name   = "terraform_security_group_13"

+   security_group_rule {
+     security_group_rule_name      = "wtf"
+     security_group_rule_protocol = "182.133.0.0/16"
+   }
+   security_group_rule {
+     security_group_rule_name      = "wtf"
+     security_group_rule_protocol = "182.134.0.0/16"
+   }

+   security_groups {
+     created = (known after apply)
  }
```

输入 yes，显示成功创建资源

2 Favorites

Plan: 1 to add, 0 to change, 0 to destroy.

Do you want to perform these actions?
Terraform will perform the actions described above.
Only 'yes' will be accepted to approve.

Enter a value: yes

ksyun_krds_security_group.krds_sec_group_13: Creating...
ksyun_krds_security_group.krds_sec_group_13: Creation complete after 1s [id=2618]
Apply complete! Resources: 1 added, 0 changed, 0 destroyed.
1031248comdeMBP:rds-sec 1031248990qq.com\$

控制台查看创建安全组创建成功

| <input type="checkbox"/> | 安全组名称 | 安全组描述 | 关联实例数 | 创建时间 | 操作 |
|--------------------------|------------------------------|------------------------------|-------|---------------------|--|
| <input type="checkbox"/> | terraform_security_group_13 | terraform-security-group-13 | 0 | 2019-12-11 11:08:52 | 克隆 管理 删除 |
| <input type="checkbox"/> | terraform_security_group_233 | terraform-security-group-233 | 2 | 2019-12-10 23:50:38 | 克隆 管理 删除 |

创建一个SQL Server高可用实例

在Terraform-ksyun目录下创建一个instance.tf文件，编辑文件按照指定格式输入创建SQL Server实例相关的配置参数，注意参数名称小写。 »Create a RDS SqlServer instance

```
provider "ksyun" {
  region = "cn-shanghai-3"
  access_key = ""
  secret_key = ""
}

variable "available_zone" {
  default = "cn-shanghai-3a"
}

resource "ksyun_vpc" "default" {
  vpc_name = "ksyun-vpc-tf"
  cidr_block = "10.7.0.0/21"
}

resource "ksyun_subnet" "foo" {
  subnet_name = "ksyun-subnet-tf"
  cidr_block = "10.7.0.0/21"
  subnet_type = "Reserve"
  dhcp_ip_from = "10.7.0.2"
  dhcp_ip_to = "10.7.0.253"
  vpc_id = "${ksyun_vpc.default.id}"
  gateway_ip = "10.7.0.1"
  dns1 = "198.18.254.41"
  dns2 = "198.18.254.40"
  availability_zone = "${var.available_zone}"
}

resource "ksyun_sqlserver" "sqlserver-1" {
  output_file = "output_file"
  dbinstanceclass = "db.ram.2|db.disk.20"
  dbinstancename = "ksyun_sqlserver_1"
  dbinstancetype = "MRDS_SS"
  engine = "SqlServer"
  engineversion = "2008r2"
  masterusername = "admin"
  masteruserpassword = "123qweASD"
  vpc_id = "${ksyun_vpc.default.id}"
  subnet_id = "${ksyun_subnet.foo.id}"
  billtype = "DAY"
}
```

执行 terraform plan 查看部署计划,这里参数前面的+代表新添加的资源，当销毁资源时，参数前面对应的符号会变为-；更改一些参数需要重新部署资源时，该资源前面的符号为-/+。

```
#terraform plan
```

```
1031248comdeMBP:sqlserver 1031248990qq.com$ terraform plan
Refreshing Terraform state in-memory prior to plan...
The refreshed state will be used to calculate this plan, but will not be
persisted to local or remote state storage.
```

An execution plan has been generated and is shown below.
Resource actions are indicated with the following symbols:
+ create

Terraform will perform the following actions:

```
# ksyun_sqlserver.ks-ss-233 will be created
+ resource "ksyun_sqlserver" "ks-ss-233" {
  + bill_type           = "DAY"
  + db_instance_class   = "db.ram.2|db.disk.100"
  + db_instance_name    = "ksyun_sqlserver_1"
  + db_instance_type    = "HRDS_SS"
  + engine              = "SQLServer"
  + engine_version      = "2008r2"
  + id                  = (known after apply)
  + master_user_name    = "admin"
  + master_user_password = "123qweASD"
  + output_file         = "output_file"
  + subnet_id           = (known after apply)
  + vpc_id              = (known after apply)
```

```
  + availability_zone = "cn-shanghai-2b"
  + cidr_block        = "10.7.0.0/21"
  + dhcp_ip_from      = "10.7.0.2"
  + dhcp_ip_to        = "10.7.0.253"
  + dns1              = "198.18.254.41"
  + dns2              = "198.18.254.40"
  + gateway_ip        = "10.7.0.1"
  + id                = (known after apply)
  + subnet_name       = "ksyun-subnet-tf"
  + subnet_type       = "Reserve"
  + vpc_id            = (known after apply)
}
```

```
# ksyun_vpc.default will be created
+ resource "ksyun_vpc" "default" {
  + cidr_block = "10.7.0.0/21"
  + id        = (known after apply)
  + is_default = false
  + vpc_name  = "ksyun-vpc-tf"
}
```

Plan: 3 to add, 0 to change, 0 to destroy.

Note: You didn't specify an "-out" parameter to save this plan, so Terraform can't guarantee that exactly these actions will be performed if "terraform apply" is subsequently run.

-

执行 terraform apply 进行资源创建

```
#terraform apply
```

```
1031248comdeMBP:sqlserver 1031248990qq.com$ terraform apply
```

An execution plan has been generated and is shown below.
Resource actions are indicated with the following symbols:
+ create

Terraform will perform the following actions:

```
# ksyun_sqlserver.ks-ss-233 will be created
+ resource "ksyun_sqlserver" "ks-ss-233" {
  + bill_type           = "DAY"
  + db_instance_class   = "db.ram.2|db.disk.100"
  + db_instance_name    = "ksyun_sqlserver_1"
  + db_instance_type    = "HRDS_SS"
  + engine              = "SQLServer"
  + engine_version      = "2008r2"
  + id                  = (known after apply)
  + master_user_name    = "admin"
  + master_user_password = "123qweASD"
  + output_file         = "output_file"
  + subnet_id           = (known after apply)
  + vpc_id              = (known after apply)

  + sqlservers {
    + audit              = (known after apply)
    + availability_zone  = (known after apply)
    + bill_type         = (known after apply)
```

输入 yes，显示成功创建资源

```
# ksyun_vpc.default will be created
+ resource "ksyun_vpc" "default" {
  + cidr_block = "10.7.0.0/21"
  + id         = (known after apply)
  + is_default = false
  + vpc_name   = "ksyun-vpc-tf"
}
```

Plan: 3 to add, 0 to change, 0 to destroy.

Do you want to perform these actions?

Terraform will perform the actions described above.
Only 'yes' will be accepted to approve.

Enter a value: yes

ksyun_vpc.default: Creating...

ksyun_vpc.default: Creation complete after 3s [id=9e92a60b-9165-4f50-8010-73591e19e54f]

ksyun_subnet.foo: Creating...

ksyun_subnet.foo: Creation complete after 2s [id=d3ed30f2-a044-49dd-af33-699449d0e1c8]

ksyun_sqlserver.ks-ss-233: Creating...

ksyun_sqlserver.ks-ss-233: Still creating... [10s elapsed]

```
ksyun_vpc.default: Creating...
ksyun_vpc.default: Creation complete after 3s [id=9e92a60b-9165-4f50-8010-73591e19e54f]
ksyun_subnet.foo: Creating...
ksyun_subnet.foo: Creation complete after 2s [id=d3ed30f2-a044-49dd-af33-699449d0e1c8]
ksyun_sqlserver.ks-ss-233: Creating...
ksyun_sqlserver.ks-ss-233: Still creating... [10s elapsed]
ksyun_sqlserver.ks-ss-233: Still creating... [20s elapsed]
ksyun_sqlserver.ks-ss-233: Still creating... [30s elapsed]
ksyun_sqlserver.ks-ss-233: Still creating... [40s elapsed]
ksyun_sqlserver.ks-ss-233: Still creating... [50s elapsed]
ksyun_sqlserver.ks-ss-233: Still creating... [1m0s elapsed]
ksyun_sqlserver.ks-ss-233: Still creating... [1m10s elapsed]
ksyun_sqlserver.ks-ss-233: Still creating... [1m20s elapsed]
ksyun_sqlserver.ks-ss-233: Still creating... [1m30s elapsed]
ksyun_sqlserver.ks-ss-233: Still creating... [1m40s elapsed]
ksyun_sqlserver.ks-ss-233: Still creating... [1m50s elapsed]
ksyun_sqlserver.ks-ss-233: Still creating... [2m0s elapsed]
ksyun_sqlserver.ks-ss-233: Still creating... [2m10s elapsed]
ksyun_sqlserver.ks-ss-233: Still creating... [2m20s elapsed]
ksyun_sqlserver.ks-ss-233: Still creating... [2m30s elapsed]
ksyun_sqlserver.ks-ss-233: Still creating... [2m40s elapsed]
ksyun_sqlserver.ks-ss-233: Still creating... [2m50s elapsed]
ksyun_sqlserver.ks-ss-233: Still creating... [3m0s elapsed]
ksyun_sqlserver.ks-ss-233: Still creating... [3m10s elapsed]
ksyun_sqlserver.ks-ss-233: Still creating... [3m20s elapsed]
ksyun_sqlserver.ks-ss-233: Still creating... [3m30s elapsed]
ksyun_sqlserver.ks-ss-233: Still creating... [3m40s elapsed]
ksyun_sqlserver.ks-ss-233: Still creating... [3m50s elapsed]
ksyun_sqlserver.ks-ss-233: Still creating... [4m0s elapsed]
ksyun_sqlserver.ks-ss-233: Still creating... [4m10s elapsed]
ksyun_sqlserver.ks-ss-233: Still creating... [4m20s elapsed]
ksyun_sqlserver.ks-ss-233: Still creating... [4m30s elapsed]
ksyun_sqlserver.ks-ss-233: Still creating... [4m40s elapsed]
ksyun_sqlserver.ks-ss-233: Creation complete after 4m44s [id=cc2e471f-8e3b-45e6-93c6-86575ea54035]
Apply complete! Resources: 3 added, 0 changed, 0 destroyed.
1031248comdeMBP:sqlserver 1031248990qq.com$
```

控制台查看SQL Server实例创建成功

| | | |
|--------------------------|-------------------|-----|
| <input type="checkbox"/> | ksyun_sqlserver_1 | 运行中 |
|--------------------------|-------------------|-----|