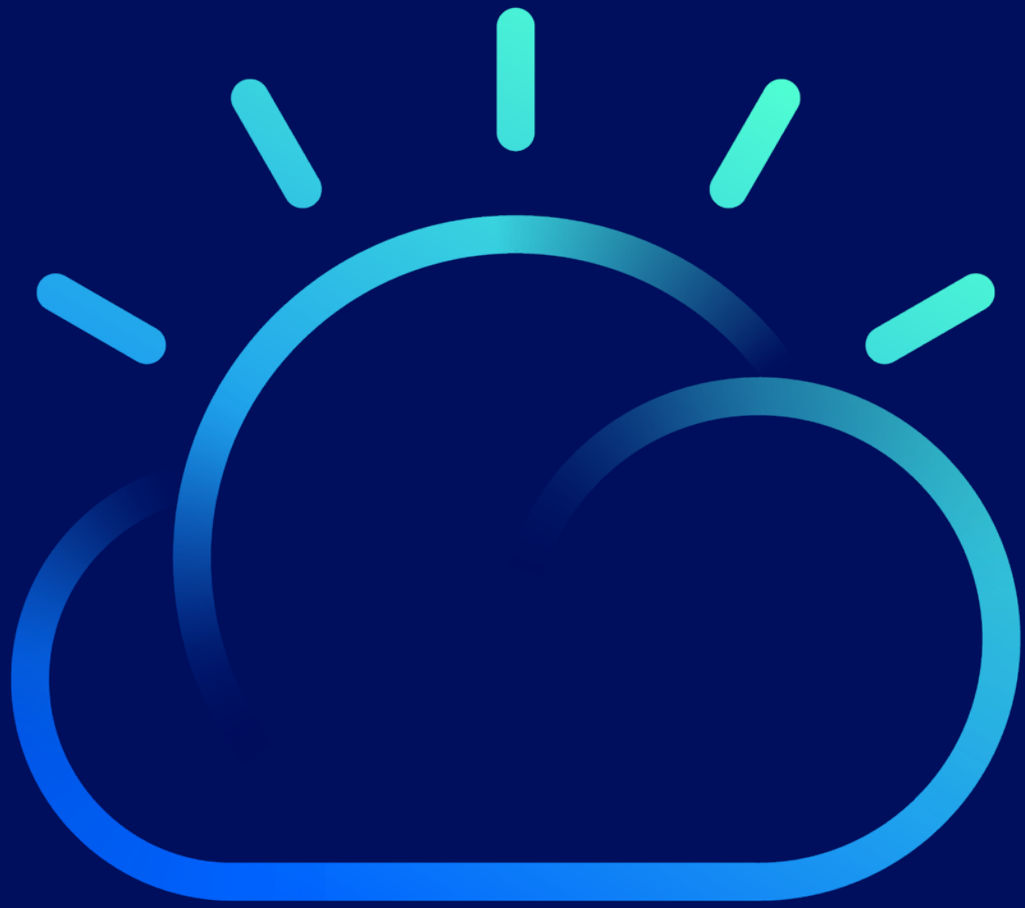
IBM Cloud Automation Manager Bootcamp



CAM Template Format

IBM Cloud

CAM Template files

Metadata for CAM

CAM Configuration Files

`camtemplate.json`

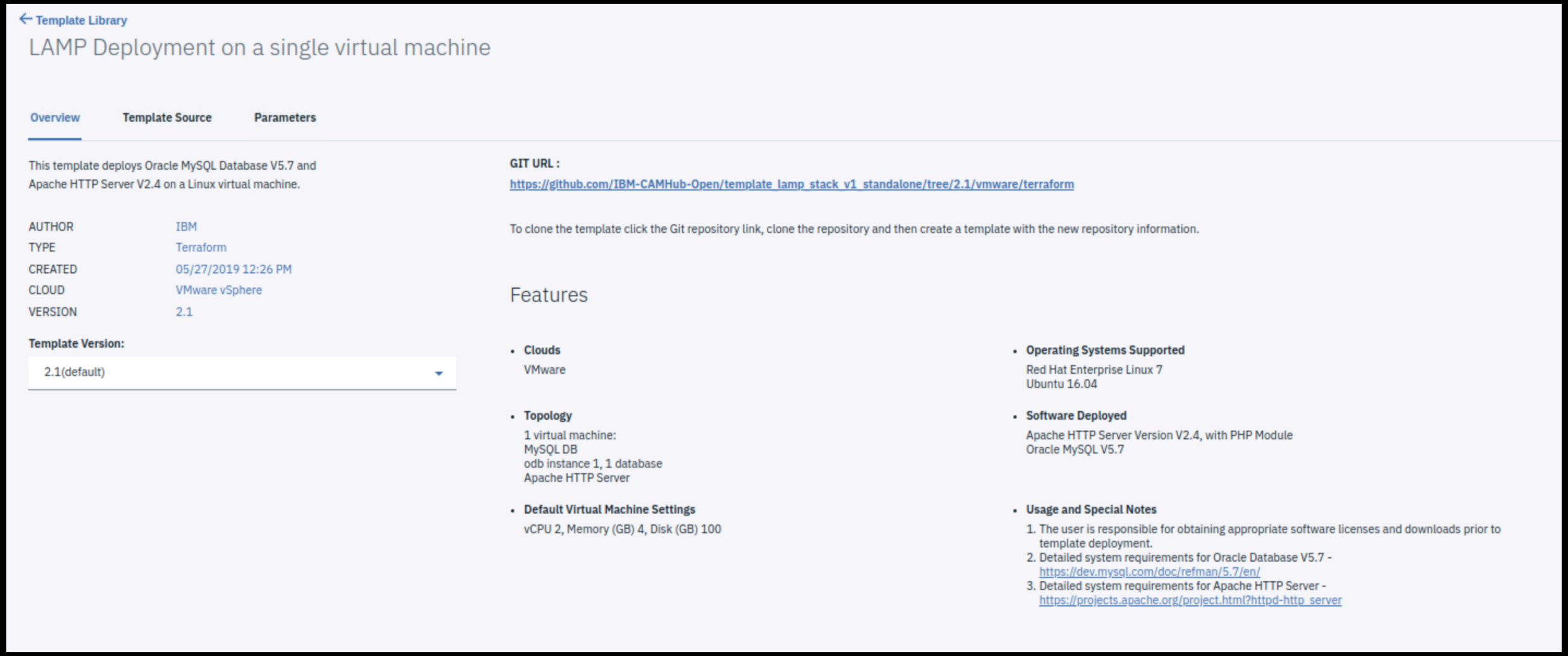
- Defines metadata for the entire template
- Name
- Description
- Title
- Displayname
- Etc

`camvariables.json`

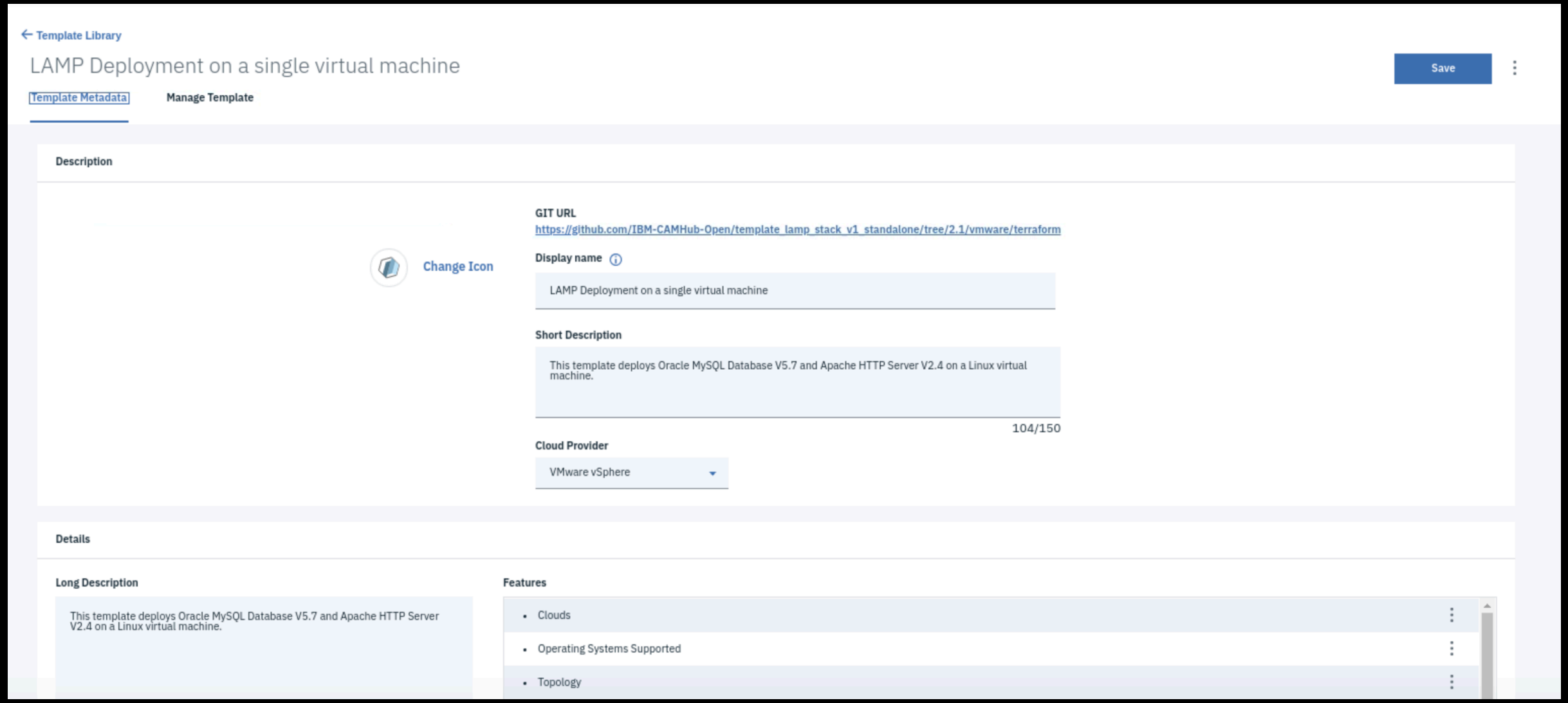
- Defines the template input variables are defined
- Name
- Label
- Description
- Type
- etc

https://www.ibm.com/support/knowledgecenter/en/SS2L37_3.1.2.0/cam_struct_template.html

camtemplate.json - Example

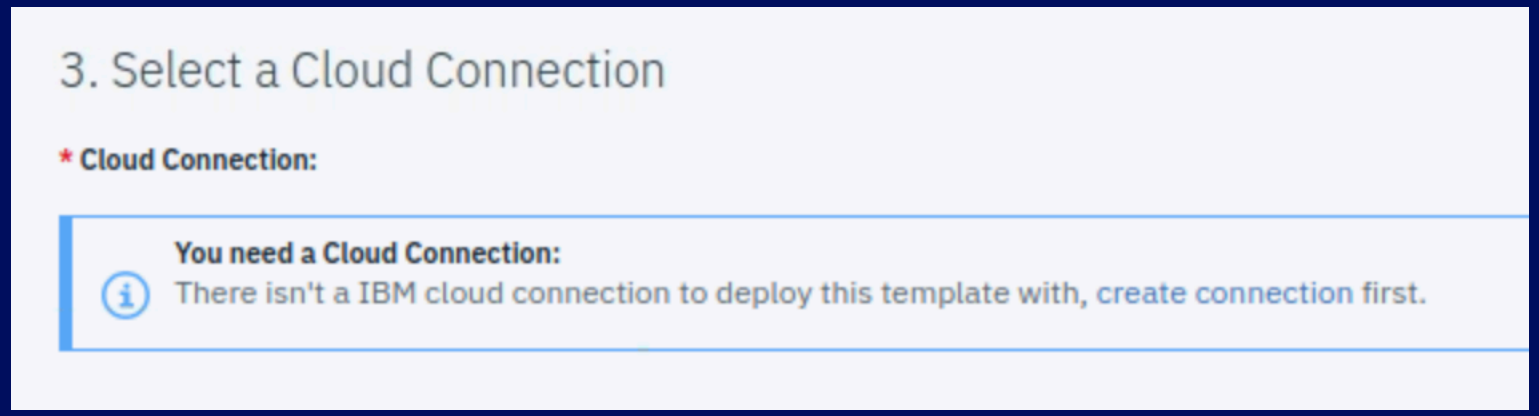


`camtemplate.json` - Continued



Cloud Connection

```
"manifest": {
  "template_type": "Terraform",
  "template_format": "HCL",
  "template_provider": "IBM",
  "template": {
    "templateData": "",
    "templateVariables": "",
    "templateOutput": ""
  },
```



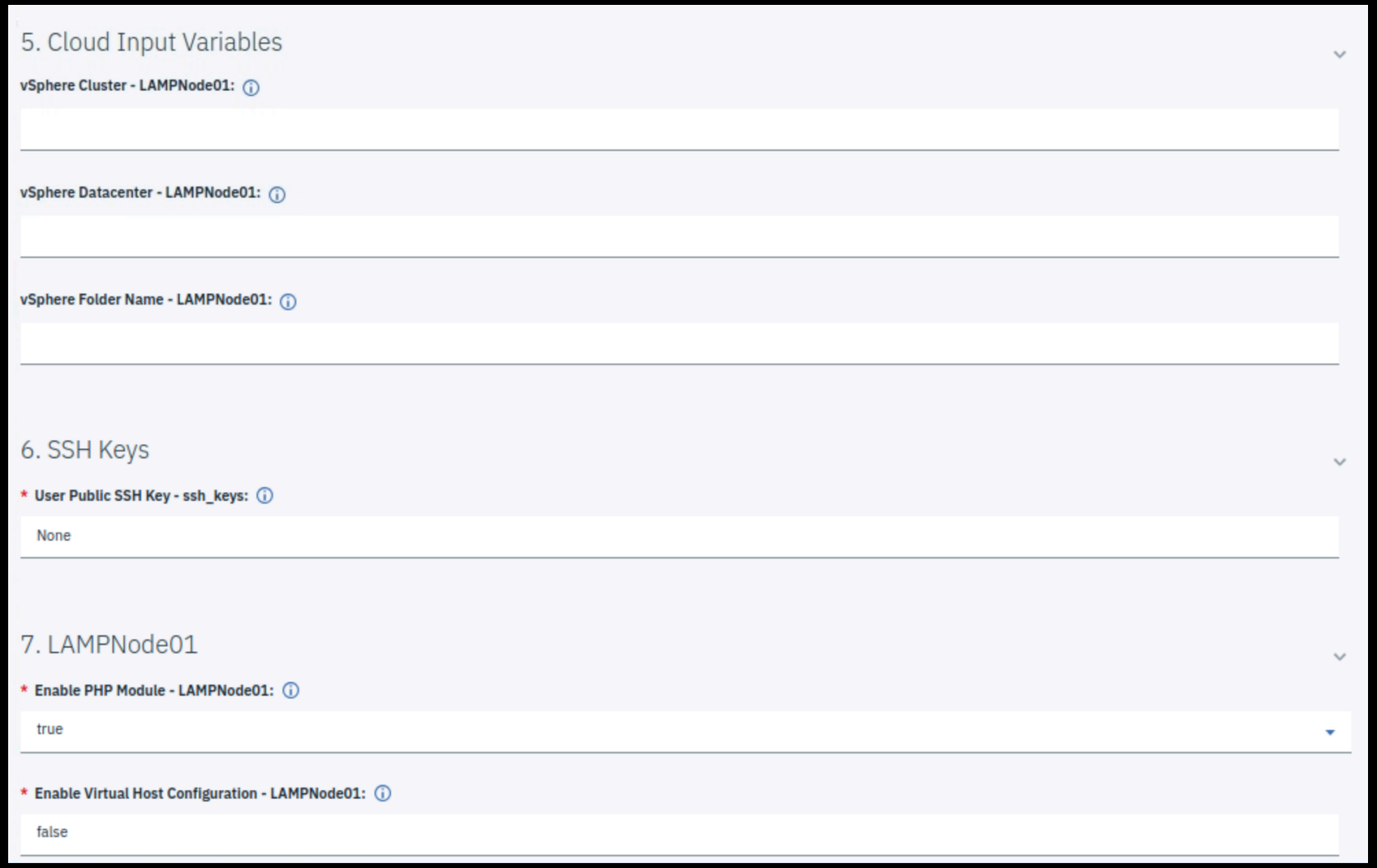
camtemplate.json

- The camtemplate.json file contains template metadata. It defines the function and features of the template.
- In the Cloud Automation Manager user interface, the template **Overview** page includes the details defined in this JSON file.
- Can be modified manually in a text editor, using the CAM UI or in the Template Designer

https://github.ibm.com/OpenContent/template_integration_icam/blob/development/other/terraform/camtemplate.json

`camvariables.json` - Example

Defines metadata for the terraform input variables



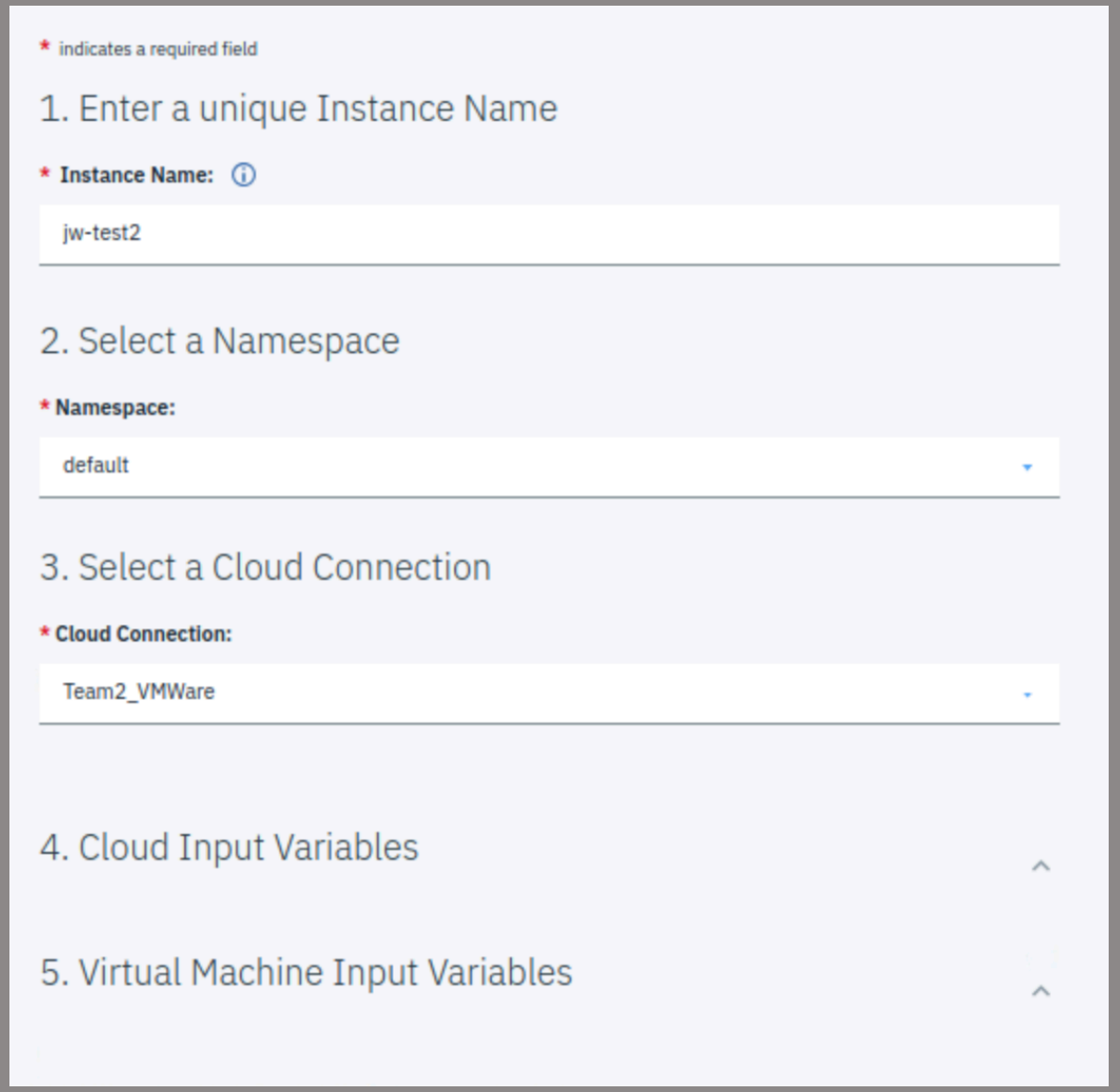
camvariables.json

The camvariables.json file contains metadata that is used in Cloud Automation Manager to augument the support for variables in terraform. Metadata adds additional parameters for existing variables that are understood and handled by Cloud Automation Manager.

When you deploy the template in the Cloud Automation Manager user interface, all these defined variables are displayed. After you enter the values in the user interface, they are passed on to a JSON file which is in turn sent for execution to terraform. Terraform matches these parameters with the variables in the .tf file.

Input Groups

```
"input_groups": [
  {
    "name": "cloud",
    "label": "Cloud Input Variables"
  },
  {
    "name": "ssh_keys",
    "label": "SSH Keys"
  },
  {
    "name": "virtualmachine",
    "label": "Virtual Machine Input Variables"
  },
  {
    "name": "image_parameters",
    "label": "Image Parameters"
  }
],
```



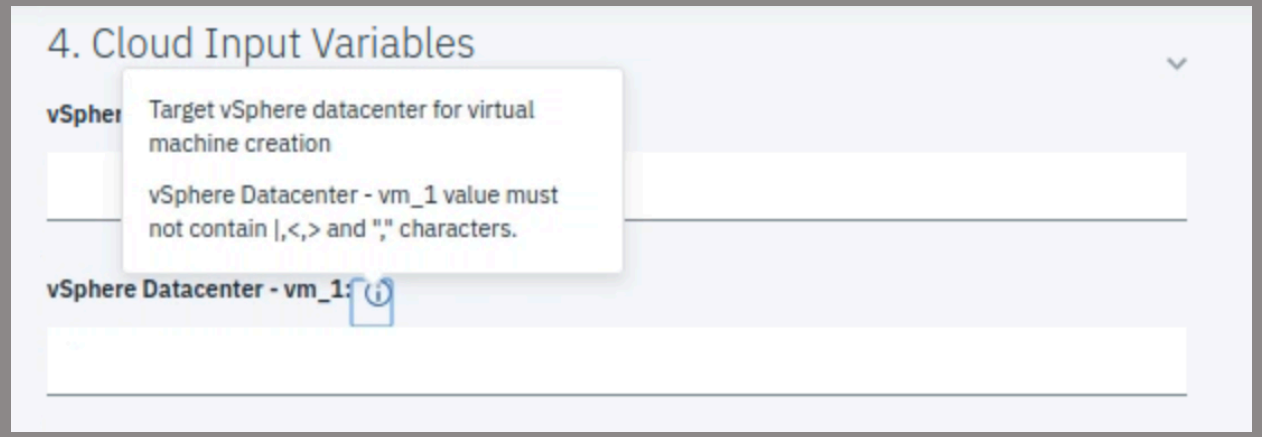
Input Parameters

Terraform Variable

```
variable "vm_1_datacenter" {
  description = "Target vSphere datacenter for virtual machine creation"
}
```

CAM Variables

```
{
  "name": "vm_1_datacenter",
  "type": "string",
  "description": "Target vSphere datacenter for virtual machine creation",
  "hidden": false,
  "label": "vSphere Datacenter - vm_1",
  "secured": false,
  "required": false,
  "immutable": false,
  "group_name": "cloud"
},
```



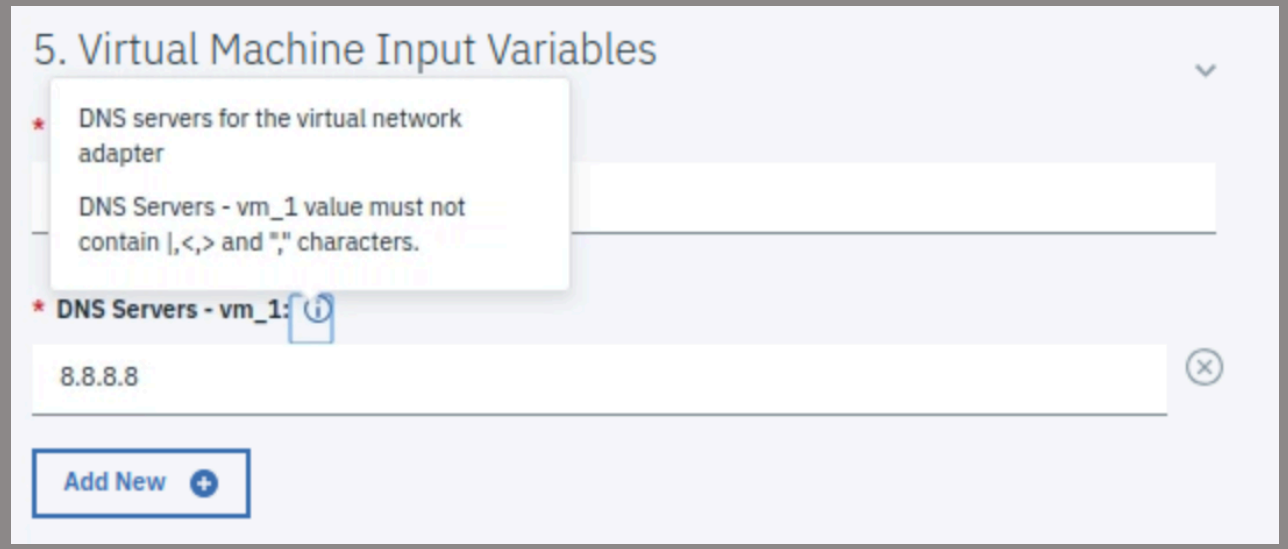
Input Parameters

CAM Variables

```
{
  "name": "vm_1_dns_servers",
  "type": "list",
  "description": "DNS servers for the virtual network adapter",
  "hidden": false,
  "label": "DNS Servers - vm_1",
  "secured": false,
  "required": true,
  "immutable": false,
  "group_name": "virtualmachine"
},
```

Terraform Variable

```
variable "vm_1_dns_servers" {
  type        = "list"
  description = "DNS servers for the virtual network adapter"
}
```



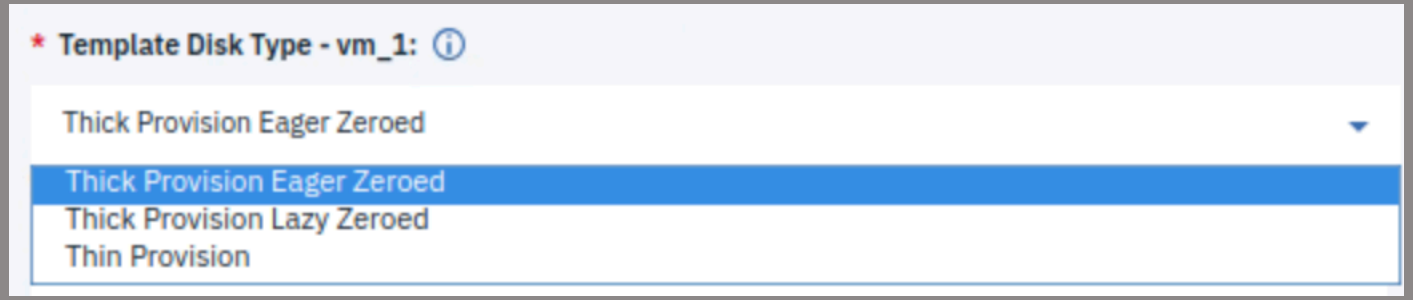
Input Parameters

CAM Variables

```
{
  "name": "vm_1_root_disk_type",
  "type": "string",
  "description": "Type of template disk volume",
  "default": "eager_zeroed",
  "hidden": false,
  "label": "Template Disk Type - vm_1",
  "secured": false,
  "options": [
    {
      "value": "eager_zeroed",
      "label": "Thick Provision Eager Zeroed",
      "default": "true"
    },
    {
      "value": "lazy",
      "label": "Thick Provision Lazy Zeroed"
    },
    {
      "value": "thin",
      "label": "Thin Provision",
      "group_name": "virtualmachine"
    }
  ],
  "required": true,
  "immutable": false,
  "group_name": "virtualmachine"
},
```

Terraform Variable

```
variable "vm_1_root_disk_type" {
  type        = "string"
  description = "Type of template disk volume"
  default     = "eager_zeroed"
}
```



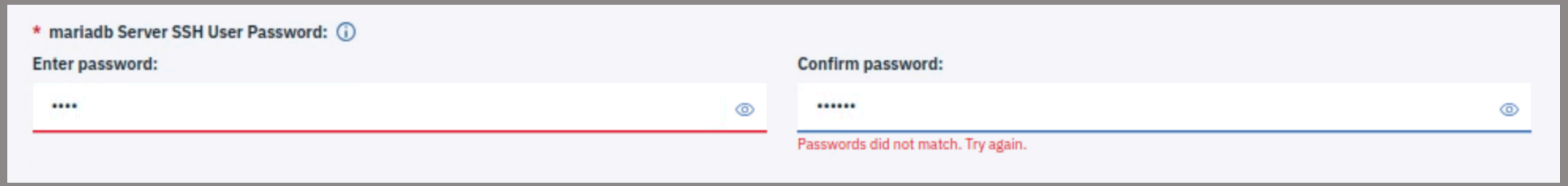
Input Parameters

Terraform Variable

```
variable "mariadb_ssh_user_password" {
  description = "The user password for ssh connection to mariadb server, which is default in template"
}
```

CAM Variables

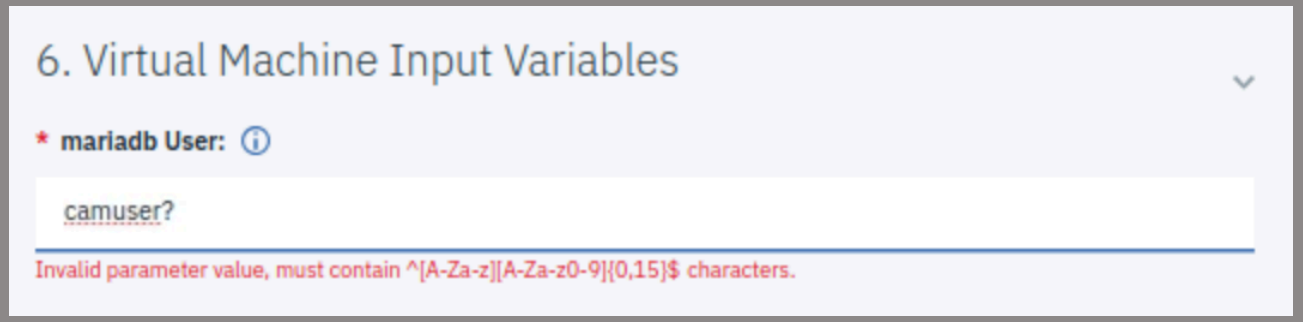
```
{
  "name": "mariadb_ssh_user_password",
  "label": "mariadb Server SSH User Password",
  "description": "The user password for ssh connection to mariadb server, which is default in template",
  "hidden": false,
  "immutable": false,
  "required": true,
  "secured": true,
  "type": "password",
  "group_name": "virtualmachine"
},
```



Input Parameters

Terraform Variable

```
variable "mariadb_user" {
  description = "User to be added into db and sshed into servers"
  default     = "camuser"
}
```



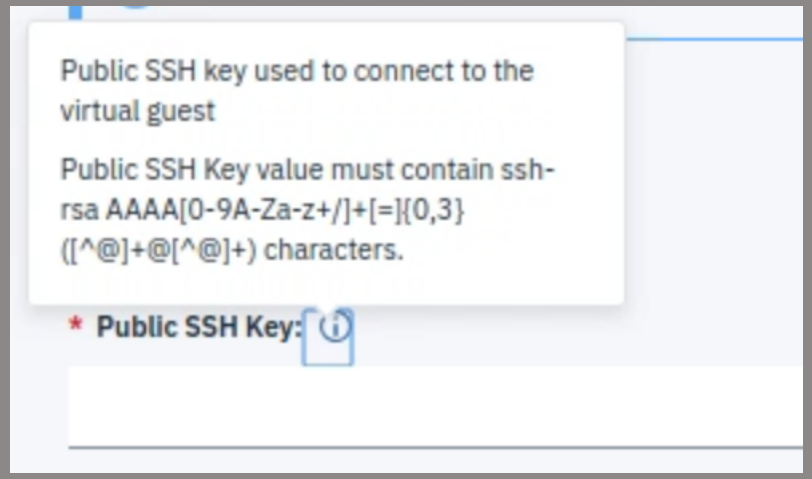
CAM Variables

```
{
  "name": "mariadb_user",
  "label": "mariadb User",
  "description": "User to be added into db and sshed into servers; Allow 1 to 16 alphanumeric characters with beginning at
  "default": "camuser",
  "hidden": false,
  "immutable": false,
  "required": true,
  "secured": false,
  "type": "string",
  "regex": "^[A-Za-z][A-Za-z0-9]{0,15}$",
  "group_name": "virtualmachine"
},
```

Input Parameters

Terraform Variable

```
variable "public_ssh_key" {
  description = "Public SSH key used to connect to the virtual guest"
}
```



CAM Variables

```
{
    "description": "Public SSH key used to connect to the virtual guest",
    "hidden": false,
    "immutable": false,
    "label": "Public SSH Key",
    "name": "public_ssh_key",
    "required": true,
    "secured": false,
    "type": "string",
        "regex": "ssh-rsa AAAA[0-9A-Za-z+/]+[=]{0,3} ([^@]+@[^@]+)"
},
```