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Create vpc lab guide

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## Exercise 1: Creating a Runbook

1. Logged into Calm with the given credentials, and click on the **Runbook** tab.
2. Click on **+ Create Runbook**
3. For the **Name** field input “**CREATE VPC user<Number>**”
4. (Optional) Provide a description for the runbook
5. Select your respective project “**user<Number>\_project**
6. Click **Proceed**

## Exercise 2: Adding a Task

This exercise allows you to add one or many task inside a runbook to execute scripts.

1. Click on the **+ Add Task**
2. Input the name **“Print Hello World”** under the **Task Name** field
3. Expand the **Type** dropdown field and select **Execute**
4. Expand the **Script Type** and select **Escript**
5. Click on **Save**

## Exercise 3: Running a Runbook

Credentials allows you to preset the username and password for the VM itself.

1. Under the script field, write a simple print Hello World code

print("Hello World")

1. Under **Version** select **Python 2** (Might not be required depending on Calm Version)
2. Click on **Save**
3. Click on **Execute**
4. You will see the “Hello World” text under the task output

## Exercise 4: Runbook Configuration

### Task 1: Adding Credential

1. Click on the Configuration tab, and click on **“Add/Edit Credentials”**
2. Click on **+ Add Credential**
3. Under the **Name** field, name it **pc\_cred**
4. Under **Username** and **Password** field, key in the Prism Central Admin username and password provided in the lab sheet variable table
5. Click **Done**

### Task 2: Adding Prism Central IP Variable

1. Click on the configuration tab, and click on “**Add/Edit Variables**”
2. Click on **+ Add Variable**
3. Under the **Name** field, name the variable **ip\_pc**
4. Under the Value field, key in the provided Prism Central IP provided in the lab sheet variable table
5. Click **Done**
6. Click **Save**

### Task 3: Adding VPC Name Variable

1. Click on **+ Add Variable**
2. Under the **Name** field, name the variable **vpc\_name**
3. Click on “**Show Additional Options**”
4. Under “**Label”** field, name it “**VPC Name**
5. Click on the **Running Man Logo** to enable runtime prompt for the variable
6. Click **Done**
7. Click **Save**

### Task 4: Adding Underlay UUID Variable

1. Click on **+ Add Variable**
2. Under the **Name** field, name the variable **underlay\_uuid**
3. Under “**Value”** field, key in the underlay uuid provided in the lab variables table
4. Click **Done**
5. Click **Save**

### Task 5: Adding Underlay Name Variable

1. Click on **+ Add Variable**
2. Under the **Name** field, name the variable **underlay\_name**
3. Under “**Value”** field, key in the underlay subnet name provided in the lab variables table
4. Click **Done**
5. Click **Save**

## Exercise 5: Writing the Create VPC Task

### Task 1: Adding a New Task

1. Click on the **+ Add Task**
2. Input the name **“Create VPC”** under the **Task Name** field
3. Expand the **Type** dropdown field and select **Set Variable**
4. Expand the **Script Type** and select **Escript**
5. Click on **Save**

### Task 2: Variable Declaration

1. Click on the newly created “**Create Subnet**” task in the editor
2. Under the **Script** field type in the following code

import requests

IP\_PC = "@@{ip\_pc}@@"

USER\_PC = "@@{pc\_cred.username}@@"

PASS\_PC = "@@{pc\_cred.secret}@@"

NAME\_VPC = "@@{vpc\_name}@@"

UUID\_UNDERLAY\_SUBNET = "@@{underlay\_uuid}@@"

NAME\_UNDERLAY\_SUBNET = "@@{underlay\_name}@@"

### Task 3: Create VPC Method

1. Under the **Script** field, type in the following code after the variable declarations

def create\_vpc(ip\_pc, user\_pc, pass\_pc, name\_vpc, uuid\_external\_subnet):

    url = "https://{}:9440/api/nutanix/v3/vpcs".format(ip\_pc)

    headers = {

        "Accept": "application/json",

        "Content-Type": "application/json"

    }

    payload = {

        "spec": {

            "name": name\_vpc,

            "resources": {

                "common\_domain\_name\_server\_ip\_list":[],

                "external\_subnet\_list": [{

                    "external\_subnet\_reference": {

                        "kind": "subnet",

                        "uuid": uuid\_external\_subnet

                    }

                }]

            }

        },

        "metadata": {

            "kind": "vpc",

        },

        "api\_version": "3.1.0"

    }

    response = requests.request("POST", url, auth=(user\_pc, pass\_pc), headers=headers, data=json.dumps(payload), verify=False)

    print(response.text)

    response = response.json()

    uuid\_vpc = response["metadata"]["uuid"]

### Task 5: Execute Methods

1. Under the **Script** field, type in the following code after the create vpc method

uuid\_vpc = create\_vpc(IP\_PC, USER\_PC, PASS\_PC, NAME\_VPC, UUID\_UNDERLAY\_SUBNET)

print "vpc\_uuid={}".format(uuid\_vpc)

1. Click on **Save**
2. Click on **Execute**
3. Under the **VPC Name** field, key in the vpc name as **user<Number>-vpc**

|  |  |
| --- | --- |
| **Lab Variables** | |
| **Item Name** | **Value** |
| Prism Central IP | 172.16.11.1 |
| Prism Central Admin Username | admin |
| Prism Central Admin Password | P@ssw0rd12345$ |
| Login Username | user<Number>@teamX.lab |
| Login Password | P@ssw0rd12345$ |
| Image to Use | RHELSVR8.8\_Training |
| Rhel Username | root |
| Rhel Password | P@ssw0rd |
| DNS Server | <To Be Updated> |
| Rhel Repo | <To Be Updated> |
| Underlay Name | VPC-Underlay |
| Underlay UUID | 700520b1-aa87-43f7-9b77-2265ee95788e |

|  |  |
| --- | --- |
| **LOGIN CREDENTIALS** | |
| **Item Name** | **Value** |
| Prism Central URL | https://172.16.11.1:9440/dm/infrastructure |
| Calm URL | https://172.16.11.1:9440/dm/self\_service/ |
| Admin Username | admin\_workshop |
| Admin Password | P@ssw0rd |
| Student Username | User<Number>@teamX.lab |
| Student Password | P@ssw0rd |