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# ORACLE CLOUD AUTOSCALLING

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Arranged By:

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(1941720080/21)

PROGRAM STUDI D-IV TEKNIK INFORMATIKA

JURUSAN TEKNOLOGI INFORMASI

POLITEKNIK NEGERI MALANG

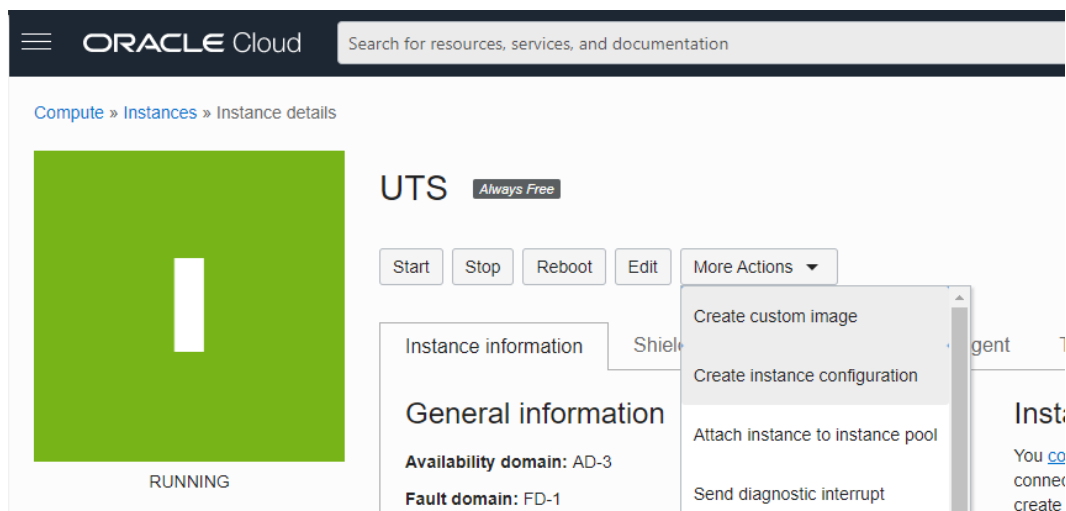


## Practicum 1

### ( Instances Configuration )

#### 1. Configure The Instance

- **Create Instance Configuration more actions menu**



- **Enter name in Instances configuration**

**Create instance configuration** [Help](#)

Create in compartment

x941720080 (root)

Name

instance-config-rajendra

[Show tagging options](#)

**Create instance configuration** Cancel



- **Page After Success create Instances Configuration**

Search for resources, services, and documentation

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Compute » Instance configurations » Instance configuration details

instance-config-rajendra

Launch instance

Create instance pool

Edit

Delete

More Actions

Instance configuration information

Tags

**Instance configuration information**  
OCID: ...rr3era Show Copy  
**Boot volume type:** Oracle-provided OS image  
**Instance configuration compartment:** x941720080 (root)  
**Image operating system:** Canonical Ubuntu 20.04  
**Boot volume size (GB):** 46.6 GB  
**Created:** Thu, Dec 16, 2021, 03:15:33 UTC

**Instance access**  
We're not quite sure how to connect to an instance that uses this image. Refer to the image's documentation, or see the general steps to [connect to a running instance](#).  
**Public IP address:** -  
**Primary VNIC**  
**Private IP:** -  
**Private DNS record:** Disable  
**Internal FQDN:** -

Instance details

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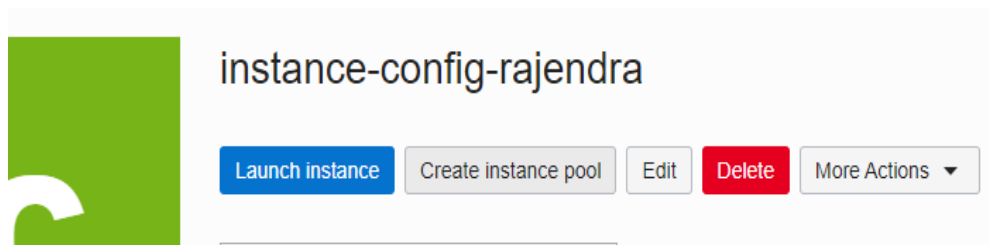
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## Practicum 2

### (Creating Pool Instance)

#### 1. Create Instance Pool



#### 2. Do Configuration Like This

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### Create instance pool

- 1 Add basic details
- 2 Configure pool placement
- 3 Review

Name: rajendra-instance-pool

Create in compartment: x941720080 (root)

Instance configuration in x941720080 (root) (Change Compartment): instance-config-rajendra

Number of instances: 3  
The number of instances that can be provisioned is limited by your tenancy's service limits.

> Instance configuration details

Show tagging options

#### 3. Then Click Next , Do Configuration Like Below

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### Create instance pool

- 1 Add basic details
- 2 Configure pool placement
- 3 Review

#### Availability domain selection 1

Availability domain: AD 1

Fault domains: FAULT-DOMAIN-1 x

Primary VNIC: Select a virtual cloud network in x941720080 (root) (Change Compartment): vcn-20210923-2051

Select a subnet in x941720080 (root) (Change Compartment): subnet-20210923-2051 (regional)

+ Another availability domain



#### 4. Result After Creating

The screenshot shows the Oracle Cloud console interface. On the left, a sidebar contains navigation links: Metrics, Attached instances (highlighted), Load balancers, and Work requests. The main content area is titled 'Attached instances' and features a table with one instance in the 'Provisioning' state. The instance details are as follows:

Name	State	Availability domain	Fault domain	Shape	Instance configuration	Attached or created
<a href="#">inst-snjn-instance-pool-rajendra</a>	Provisioning	AD-1	FD-1	VM.Standard.E4.Flex	<a href="#">instance-config-rajendra</a>	Thu, Dec 16, 2021, 04:00:16 UTC

Below the table, it indicates 'Showing 1 Item' and 'Page 1'. The top of the console shows the 'ORACLE Cloud' header with a search bar and the region 'UK South (London)'.

The screenshot displays the 'instance-pool-rajendra' details page in the Oracle Cloud console. The page header shows the navigation path: Compute » Instance pools » Instance pool details » Attached instances. A large green square with a white 'P' icon represents the instance pool, with the status 'RUNNING' below it. Action buttons (Edit, Start, Stop, Reboot, More Actions) are visible. The 'Instance pool information' tab is active, showing the following details:

**General information**

- OCID: ...i6hxqa [Show](#) [Copy](#)
- Instance configuration: [instance-config-rajendra](#) ([View details](#))
- Created: Thu, Dec 16, 2021, 03:59:57 UTC
- Target instance count: 1
- Compartment: x941720080 (root)

**Availability domain 1**

- Availability domain: AD-1
- Fault domain: FAULT-DOMAIN-1, FAULT-DOMAIN-2, FAULT-DOMAIN-3
- Primary VNIC virtual cloud network: [vcn-20210923-2051](#)
- Primary VNIC subnet: [subnet-20210923-2051](#)
- Secondary VNIC subnet: -

The bottom of the page shows the 'Attached instances' section, which is currently empty. The footer includes 'Terms of Use and Privacy' and 'Cookie Preferences' links, along with a copyright notice for 2021.



## Practicum 3

### ( Configure Autoscaling )

#### 1. Create Autoscaling Configuration In More Actions

The screenshot shows the Oracle Cloud console interface. At the top, there's a search bar and navigation links. The main content area displays the details for an instance pool named 'instance-pool-rajendra'. A green square with a white 'P' icon represents the instance pool, with the status 'RUNNING' below it. To the right of the icon are buttons for 'Edit', 'Start', 'Stop', 'Reboot', and a 'More Actions' dropdown menu. The dropdown menu is open, showing options like 'Add Tags', 'Create autoscaling configuration', 'Move resource', and 'Terminate'. The 'Create autoscaling configuration' option is highlighted. Below the buttons, there's a section for 'Instance pool information' and 'General information', including the OCID and instance configuration. To the right, there's a section for 'Availability domain 1' showing the availability domain and fault domain.

#### 2. Do Configuration Like this

The screenshot shows the 'Create autoscaling configuration' form in the Oracle Cloud console. The form has a sidebar with three steps: '1 Add basic details', '2 Configure autoscaling policy', and '3 Review'. The 'Add basic details' step is active. The form fields include: 'Name' (autoscaling-config-rajendra), 'Create in compartment' (x941720080 (root)), and 'Instance pool' (instance-pool-rajendra). There is a 'Show tagging options' link at the bottom.



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### Create autoscaling configuration

[Add basic details](#)  
**2 Configure autoscaling policy**  
[Review](#)

**Metric-based autoscaling**  
Performance metrics such as CPU utilization trigger autoscaling events.

**Schedule-based autoscaling**  
Autoscaling events take place at the specific times that you schedule.

> Instance pool and instance configuration information

#### Configure autoscaling policy

Autoscaling policy name  
autoscaling-policy-20211216-1128

Cooldown in seconds ⓘ  
300  
Minimum value is 300 seconds.

Performance metric ⓘ  
CPU utilization

#### Scale-out rule

Scale-out operator  
Greater than (>)

Threshold percentage ⓘ  
70

Number of instances to add  
1

#### Scale-in rule

Scale-in operator  
Less than (<)

Threshold percentage ⓘ  
40

Number of instances to remove  
1

#### Scaling limits

Minimum number of instances  
1

Maximum number of instances ⓘ  
3

Initial number of instances  
2

[Previous](#) [Next](#) [Cancel](#)

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## autoscaling-config-rajendra

[Edit](#) [Disable](#) [Move resource](#) [Add Tags](#) [Delete](#)

**AS**

ENABLED

Autoscaling configuration information Tags

OCID: ...rldrra [Show](#) [Copy](#) **Compartment:** x941720080 (root)

**Created:** Thu, Dec 16, 2021, 04:39:28 UTC **Instance pool:** [instance-pool-rajendra](#)

**Cooldown period:** 300 seconds

### Resources

[Autoscaling policies](#)

[Autoscaling policies](#) define the criteria that trigger autoscaling actions and the actions to take.

[Edit](#)

Policy name	Policy type	Performance metric
autoscaling-policy-20211216-1128	Threshold	CPU utilization

[Sh](#)

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### 3. Schedule Based Autoscaling

#### Create autoscaling configuration

1 Add basic details

2 **Configure autoscaling policy**

3 Review

Metric-based autoscaling

Schedule-based autoscaling ☒

> Instance pool and instance configuration information

Autoscaling policy 1

Autoscaling policy name

autoscaling-policy-0160a2c0-20211216-1201

Action to perform

☒ Scale pool size ☐ Change lifecycle state of all instances

Target pool size

10

Execution schedule

Use a cron expression to schedule when the pool should scale to the target pool size for this policy.  
All times are in UTC.

Quick start

Custom

Minute

0

Hour

14

Day of the month

?

Month

1-3

Day of the week

2

Year

\*

Summary: At 02:00 PM, only on Monday, January through March, UTC

Next event: Jan 3, 2022, 14:00 UTC

Previous

Next

Cancel

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autoscaling-config-schedule-rajendra

Edit

Disable

Move resource

Add Tags

Delete

Autoscaling configuration information

Tags

OCID: ...xfablq [Show](#) [Copy](#)

Created: Thu, Dec 16, 2021, 05:07:47 UTC

Cooldown period: 300 seconds

Compartment: x941720080 (root)

Instance pool: [instance-pool-scheduled-rajendra](#)

Resources

Autoscaling policies

Pool size forecast

Autoscaling policies

[Autoscaling policies](#) define the criteria that trigger autoscaling actions and the actions to take.

Edit

Policy name	Action	Target	Estimated next event	Policy type	Status
autoscaling-policy-0160a2c0-20211216-1201	Scale size	10	Jan 3, 2022, 14:00 UTC	Schedule-based	<input checked="" type="checkbox"/> Enabled

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## **Assignment**

### **1. Explain What is the relationship between Autoscalling and Availability?**

Autoscaling is a cloud computing feature that enables organizations to scale cloud services such as server capacities or virtual machines up or down automatically, based on defined situations such as traffic or utilization levels.

The key difference is that autoscaling requires that an application be architected such that a node can be taken out of service at any time, without interrupting end-users.

Benefits using auto scaling With autoscalling, the computing infrastructure that is run will be able to adapt to the computing needs of the time. So that the costs required will certainly be more efficient.