

TEMASEK POLYTECHNIC

SCHOOL OF INFORMATICS & IT

VIRTUAL DESKTOP TECHNOLOGY

Practical 4

Dear students,

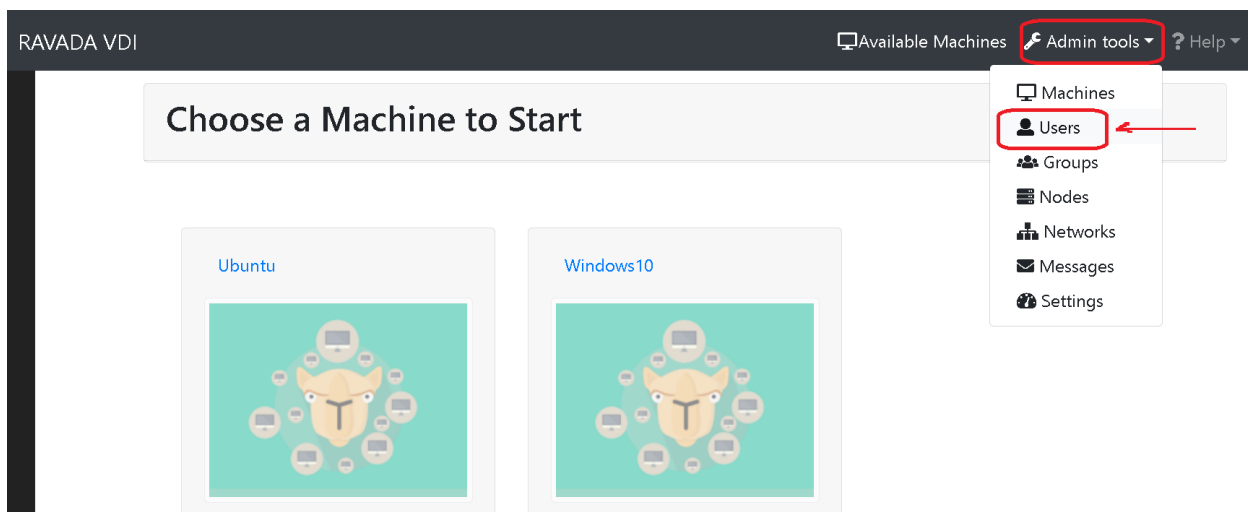
- Please ensure to complete these Labs as they will be part of your final project report and POC.
- Please remember to take all **important screen shots** of each Lab to build up your final project report and POC.
- Please also remember to use virtual box **clone feature** to backup your Ravada VM after each Lab to prevent any corruption.
- Please copy all Linux commands in these Labs to **notepad** first, **ensure all syntax is correct** before copying to Linux Command prompt.

User Management

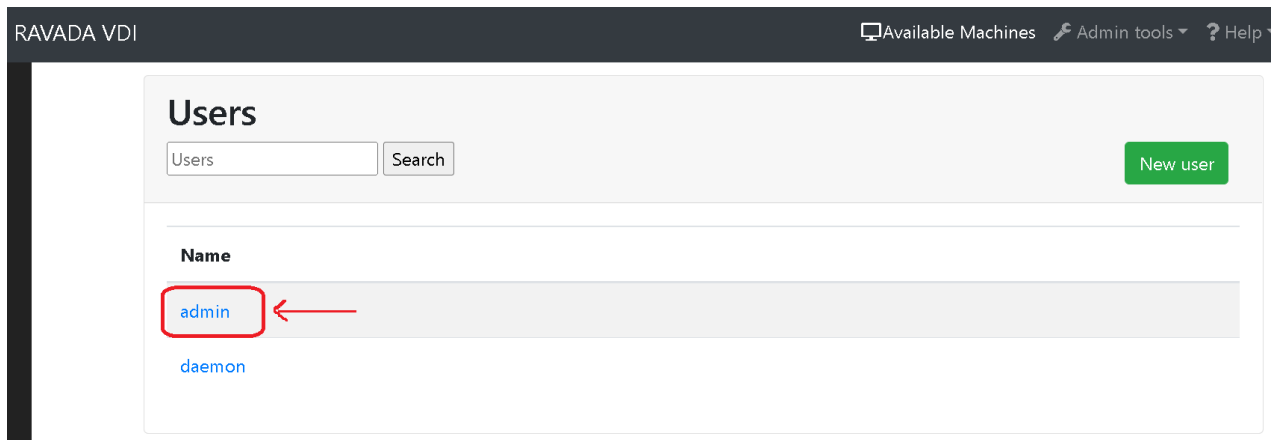
Step 1

Configure Ravada Administrator

Goto → Admin tools → Users

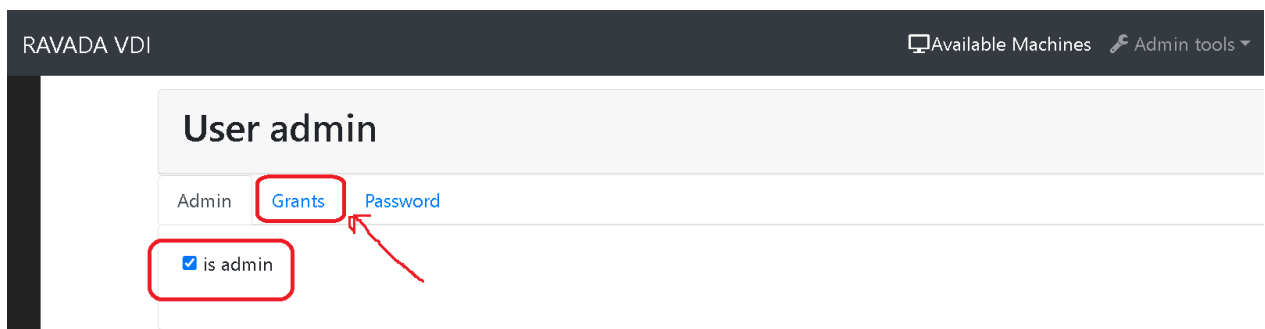


Click **admin** to discover more functions.



Notice **admin** is configured as Ravada administrator

Click the **Grants** to discover more functions.



This show what is being granted to **admin** which is a Ravada administrator

User admin

[Admin](#)[Grants](#)[Password](#)

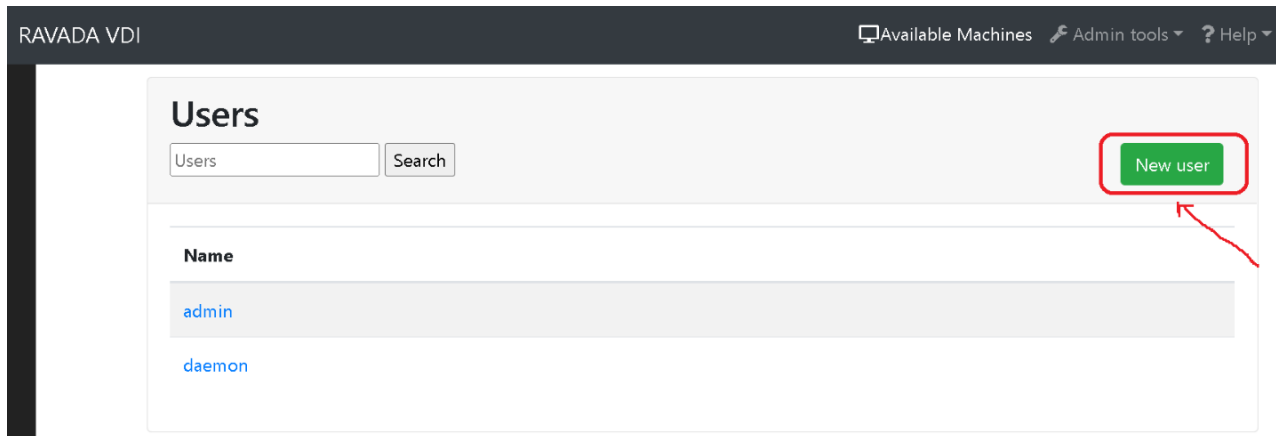
- ☒ **change_settings**: can change the settings of owned virtual machines.
- ☒ **change_settings_all**: can change the settings of any virtual machine.
- ☒ **change_settings_clones**: can change the settings of any virtual machine cloned from one base owned by the user.
- ☒ **clone**: can clone public virtual machines.
- ☒ **clone_all**: can clone any virtual machine.
- ☒ **create_base**: can create bases.
- ☒ **create_machine**: can create virtual machines.
- ☒ **expose_ports**: Can expose virtual machine ports.
- ☒ **expose_ports_all**: Can expose ports from any virtual machine.
- ☒ **expose_ports_clones**: Can expose ports from clones of own virtual machines.
- ☒ **grant**: can grant permissions to other users
- ☒ **manage_groups**: Can manage groups.
- ☒ **manage_users**: can manage users.
- ☒ **reboot**: Can reboot own virtual machines.
- ☒ **reboot_all**: Can reboot all virtual machines.
- ☒ **reboot_clones**: Can reboot clones own virtual machines.
- ☒ **remove**: can remove any virtual machine owned by the user.
- ☒ **remove_all**: can remove any virtual machine.
- ☒ **remove_clone_all**: can remove any clone.
- ☒ **remove_clones**: can remove clones from virtual machines owned by the user.
- ☒ **rename**: Can rename any virtual machine owned by the user.
- ☒ **rename_all**: Can rename any virtual machine.
- ☒ **rename_clones**: Can rename clones from virtual machines owned by the user.
- ☒ **screenshot**: Can get a screenshot of own virtual machines.
- ☒ **shutdown**: Can shutdown own virtual machines.
- ☒ **shutdown_all**: can shutdown any virtual machine.
- ☒ **shutdown_clones**: can shutdown clones from virtual machines owned by the user.
- ☒ **start_many**: Can have an unlimited amount of machines started.
- ☒ **view_groups**: Can view groups.

Step 2

Configure Ravada Users

Go back to Admin tools → Users.

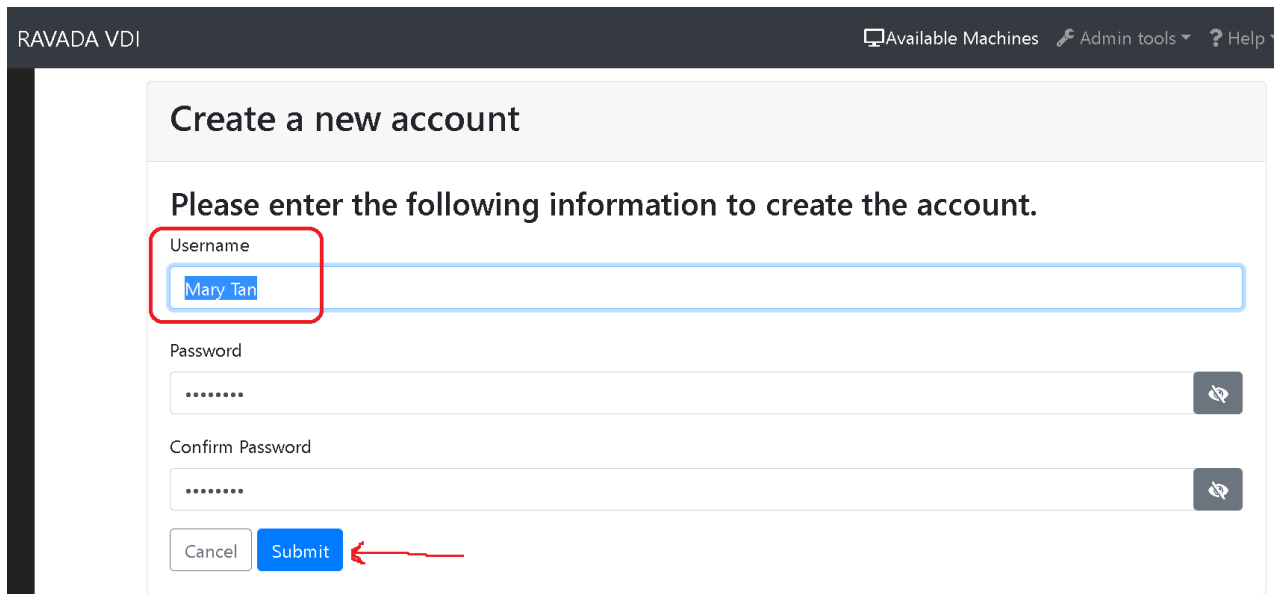
Click on **New user** Button



Create 2 New Ravada users as follows:

Username: Mary Tan, password: cisco123 (for Windows 10 VDI)

Username: Peter Lim, password: cisco123 (for Ubuntu VDI)



Notice Mary Tan and Peter Lim are not configured as Ravada administrator

RAVADA VDI Available Machines Admin tools

User Mary Tan

Admin Grants Password

☐ is admin

This show what is being granted to **Mary Tan** and **Peter Lim** which are only Ravada users

User Mary Tan

Admin Grants Password

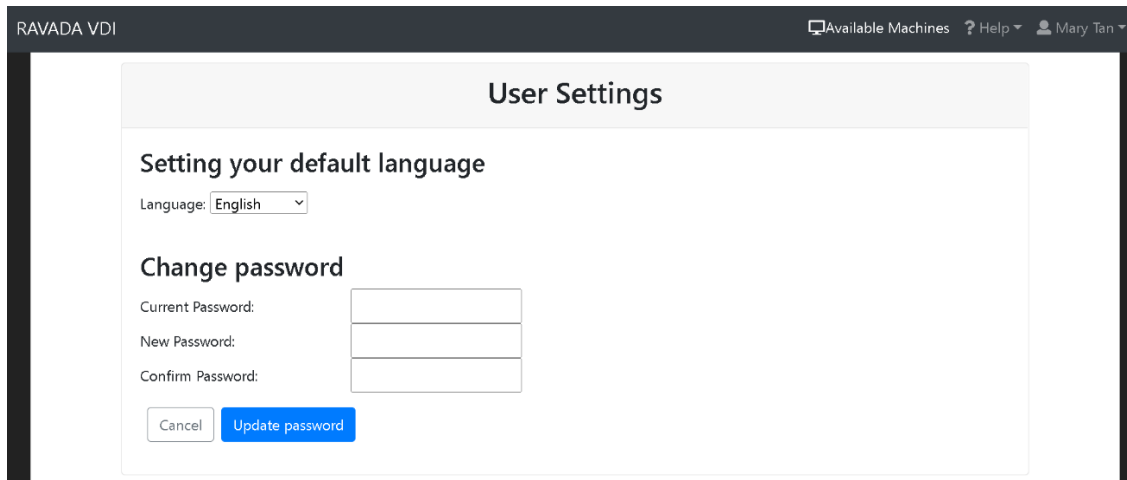
☒ change_settings: can change the settings of owned virtual machines.
☐ change_settings_all: can change the settings of any virtual machine.
☐ change_settings_clones: can change the settings of any virtual machine cloned from one base owned by the user.
☒ clone: can clone public virtual machines.
☐ clone_all: can clone any virtual machine.
☐ create_base: can create bases.
☐ create_machine: can create virtual machines.
☐ expose_ports: Can expose virtual machine ports.
☐ expose_ports_all: Can expose ports from any virtual machine.
☐ expose_ports_clones: Can expose ports from clones of own virtual machines.
☐ grant: can grant permissions to other users
☐ manage_groups: Can manage groups.
☐ manage_users: can manage users.
☒ reboot: Can reboot own virtual machines.
☐ reboot_all: Can reboot all virtual machines.
☐ reboot_clones: Can reboot clones own virtual machines.
☒ remove: can remove any virtual machine owned by the user.
☐ remove_all: can remove any virtual machine.
☐ remove_clone_all: can remove any clone.
☐ remove_clones: can remove clones from virtual machines owned by the user.
☐ rename: Can rename any virtual machine owned by the user.
☐ rename_all: Can rename any virtual machine.
☐ rename_clones: Can rename clones from virtual machines owned by the user.
☒ screenshot: Can get a screenshot of own virtual machines.
☒ shutdown: Can shutdown own virtual machines.
☐ shutdown_all: can shutdown any virtual machine.
☐ shutdown_clones: can shutdown clones from virtual machines owned by the user.
☐ start_many: Can have an unlimited amount of machines started.
 can have their own limit on started machines.
☐ view_groups: Can view groups.

Step 3

Logout admin and **Login as Mary Tan and Peter Lim into Ravada Web portal**

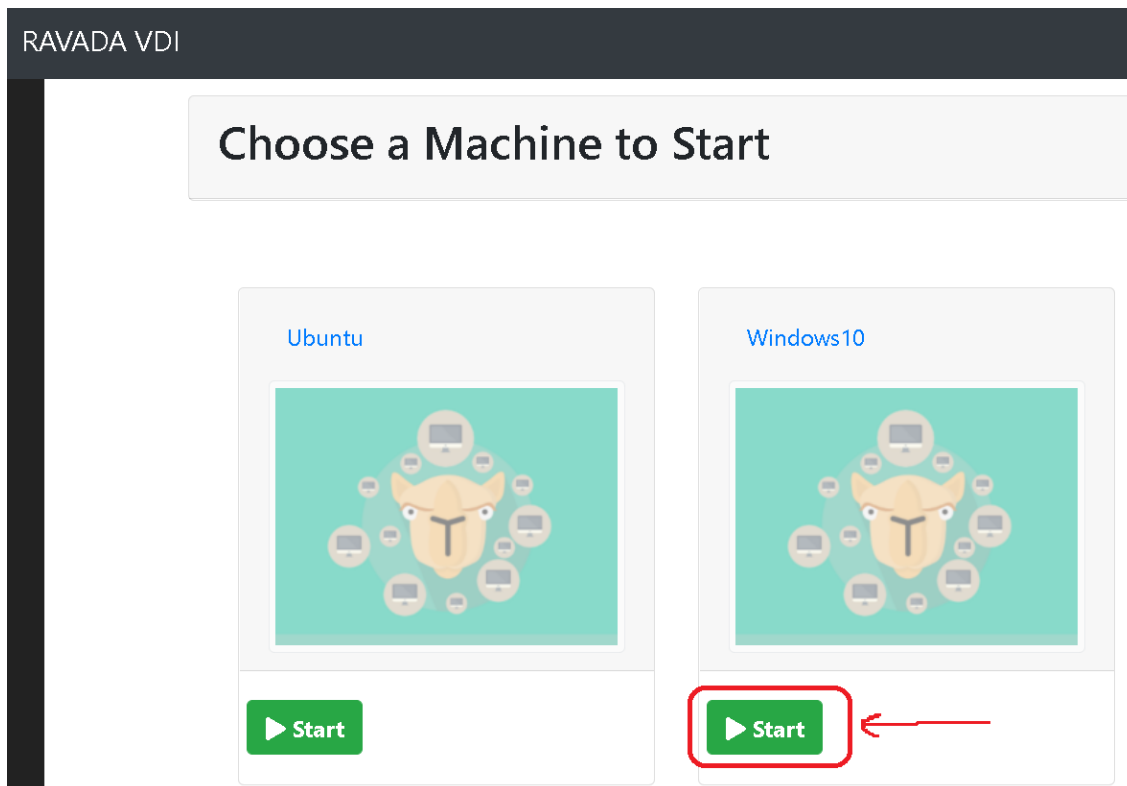
Notice Admin Tools functions are missing for Mary Tan and Peter Lim

They can only reset their own password, start VDI instances and some other limited actions

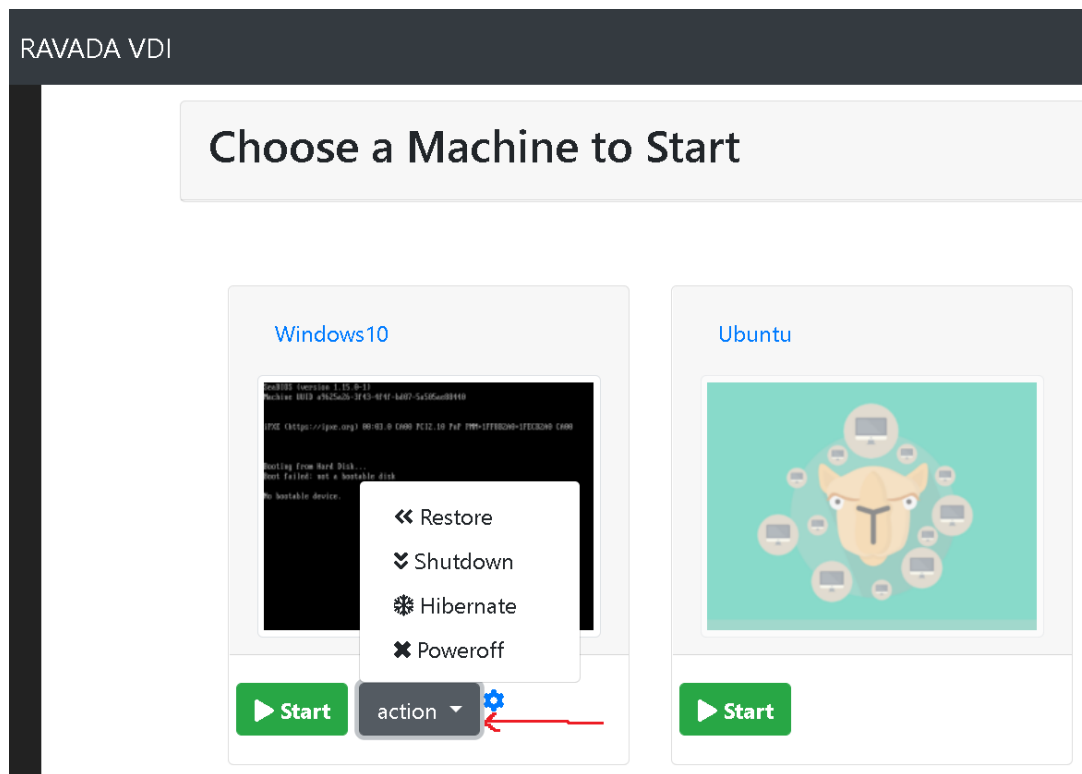


Start the Windows 10 VDI for Mary Tan

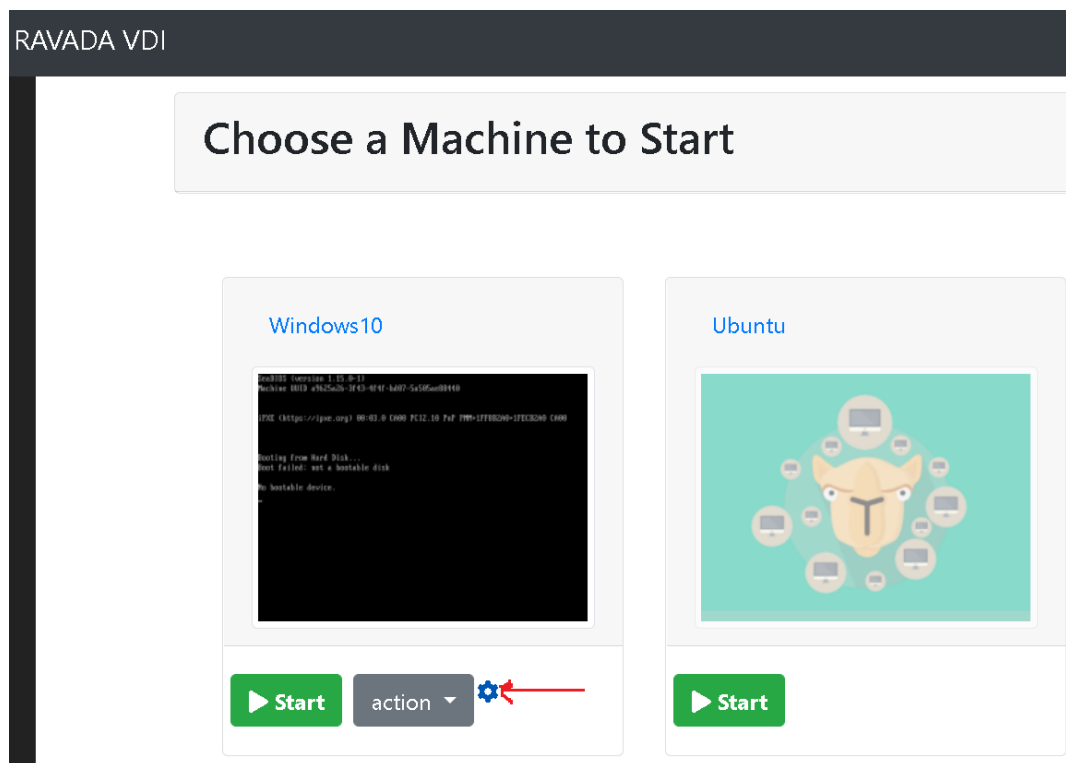
Start Ubuntu VDI for Peter Lim



Click on the **action button** to see what is offered for action to be taken



Click on the **Gear Icon** to see what is available



Virtual Machine **Windows10-Mary Tan Settings**

Actions



Description

Options

Screenshot

Graphics

Remove

 Start View Hibernate ShutDown Force ShutDown Reboot Force RebootVirtual Machine **Windows10-Mary Tan Settings**

Actions

Description

Options

Screenshot

Graphics

Remove

This information will be available to the users.

**B I S Ix** |  | Styles | Format | ?

Cancel

Submit

Ravada users can edit the current memory size of their own VDI instances

RAVADA VDI

Available Machines

Virtual Machine **Windows10-Mary Tan** Settings

Actions

Description

Options

Screenshot

Graphics

Remove

Max memory (MB)

512

Current memory (MB)

512

CPU

1

Run Timeout

Shutdown Timeout

The machine will shutdown after these minutes

The machine will power off after this minutes after shutdown.

Ravada users can take screenshots of their own VDI instances

RAVADA VDI

Virtual Machine **Windows10-Mary Tan** Settings

Actions

Description

Options

Screenshot

Graphics

Remove

Take screenshot

```
Proxmox version 1.15.0-12
Machine UUID: a9d25a2b-3f43-4f01-ba07-5a50a000110
IPXE (https://ipxe.org) NO-ELF CMD PC12.10 PUP PPM-1FF0B200-1FF0B200 CMD
Booting from Hard Disk...
Boot failed: not a bootable disk
No bootable device.
```

Ravada users can modify some graphics settings as shown below

RAVADA VDI

Available Machines

Virtual Machine **Windows10-Mary Tan** Settings

Actions

Description

Options

Screenshot

Graphics

Remove

image

auto_glz

recommended

auto_glz

jpeg

auto

auto

zlib

auto

auto

playback

on

on

streaming

filter

filter

Cancel

Submit

Ravada users can delete their own VDI instances. Example when OS is corrupted, after that they can launch new clean instances

RAVADA VDI

Available Machines ? Help

Virtual Machine **Windows10-Mary Tan** Settings

Actions

Description

Options

Screenshot

Graphics

Remove

Danger Zone

Once you delete the machine, there is no going back. Please be certain.

Danger. This will remove all the contents of the machine *Windows10-0003*. **This action can't be undone.** Are you sure?

No

Yes, remove Windows10-0003

Logout as Mary Tan and Peter Lim

Login as admin again

Notice Ravada users **linked clones** are being created automatically when users start the VDI

The VDI base images remains Down in the perfect clean state

RAVADA VDI

Available MachinesAdmin tools? Help

Virtual Machines





New Machine

Requests4

Show active0

Show clones

filter

Machine Name	Base	Public	Status	Actions
Ubuntu	✓	✓	Down 17 hours	This Machine is a base
Ubuntu-Peter Lim			Down now	   
Windows10	✓	✓	Down 16 hours	This Machine is a base
Windows10-Mary Tan			Down now	