

Coffre User Manual

1. VirtualBox Installation

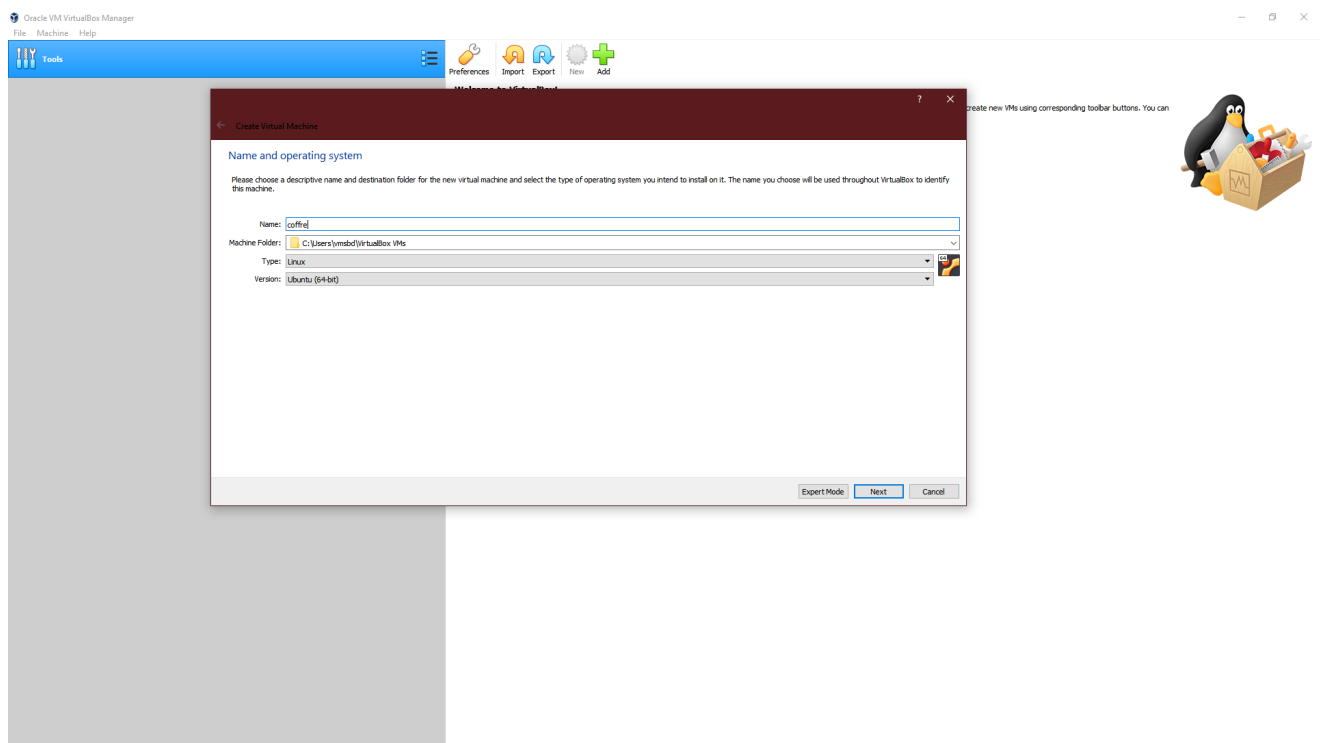
- Download and install Oracle VM VirtualBox from the [official](#) site.
- Refer to [this](#) askubuntu page if you get VirtualBox kernel modules do not match error

2. VDI download

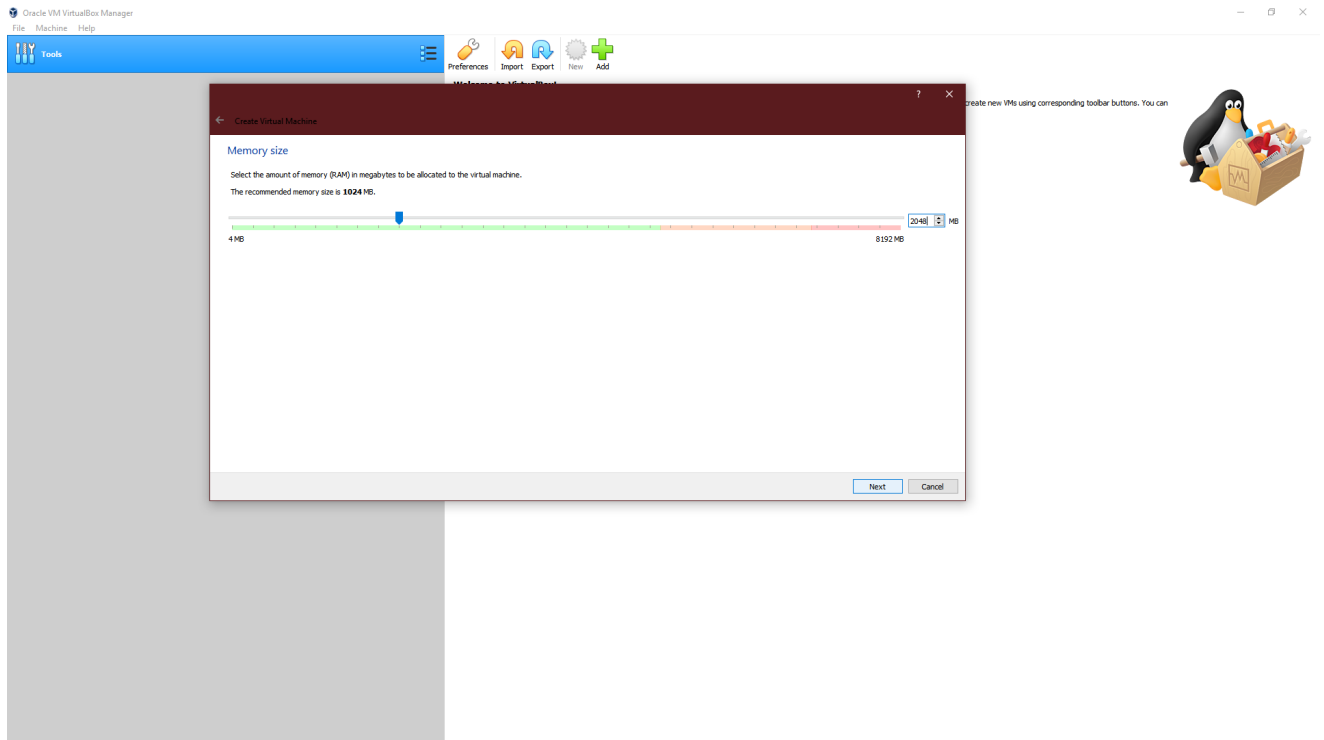
- Download the '.vdi' file from the link provided to you in the E-mail.
- Note your group name and group password

3. Virtual Machine setup:

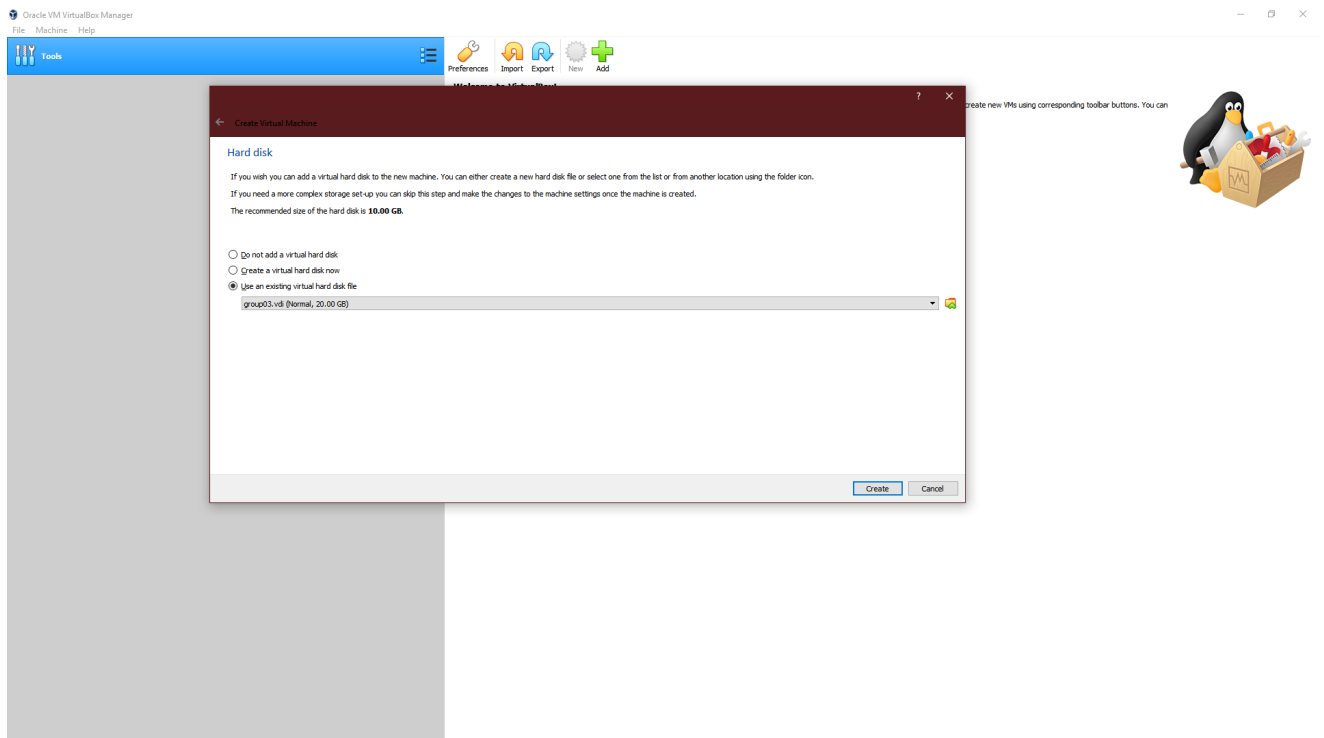
- Create a new virtual machine as follows.
- Choose your Operating System type as Linux and select ubuntu 64 bit version



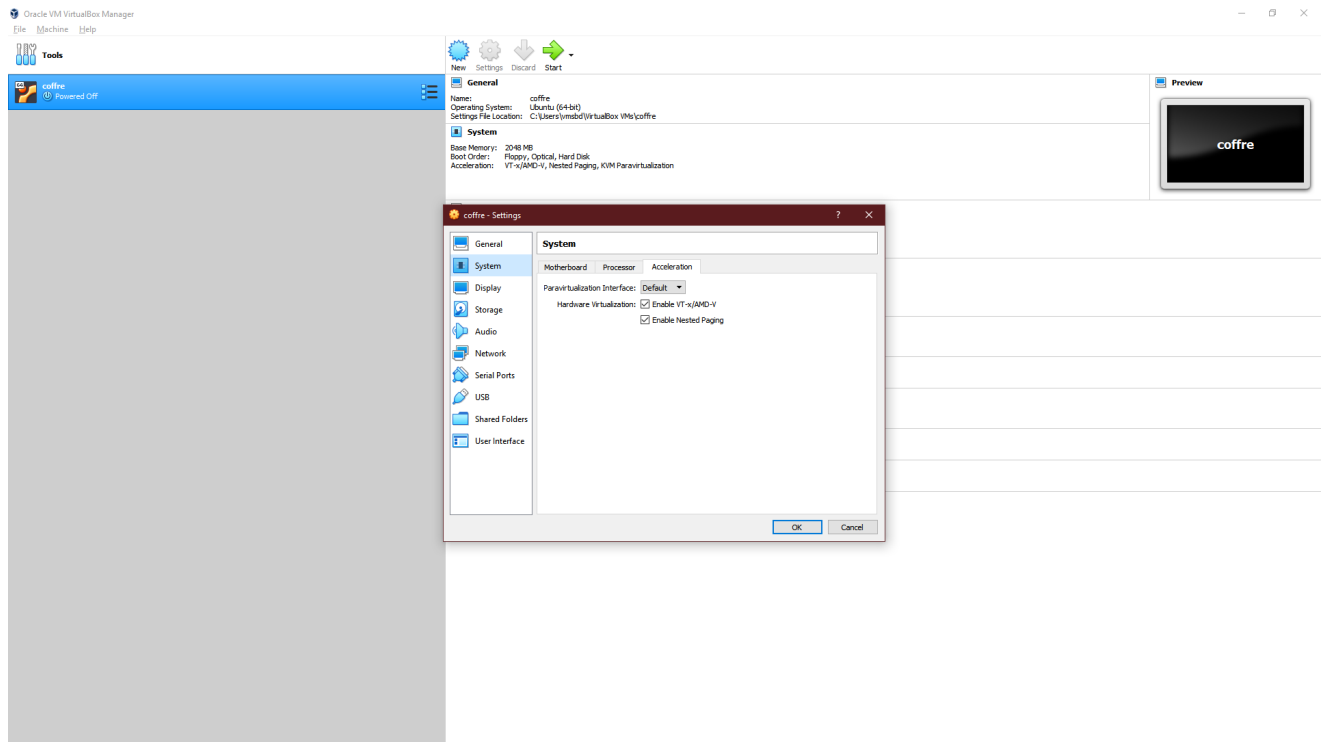
- Allocate atleast **2GB** ram and continue



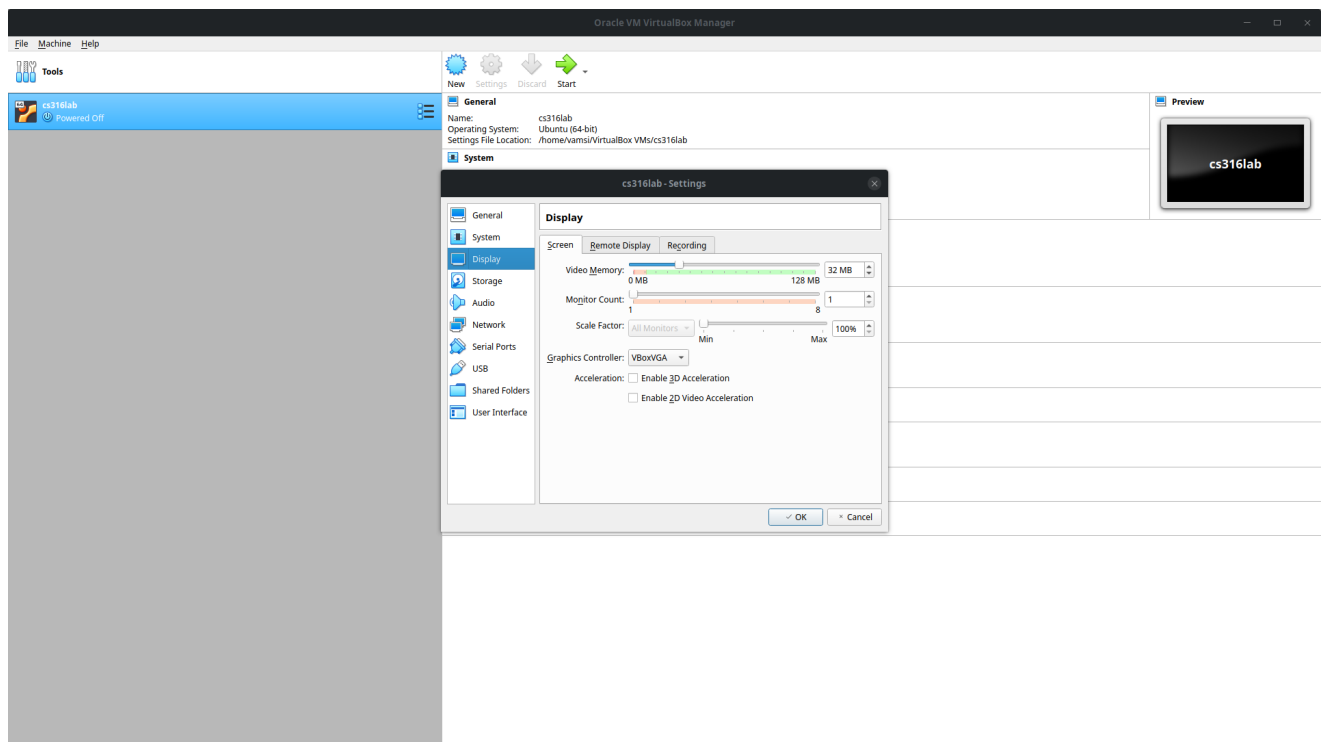
- Select use an existing virtual hard disk file, choose the '.vdi' file , just downloaded by you and continue



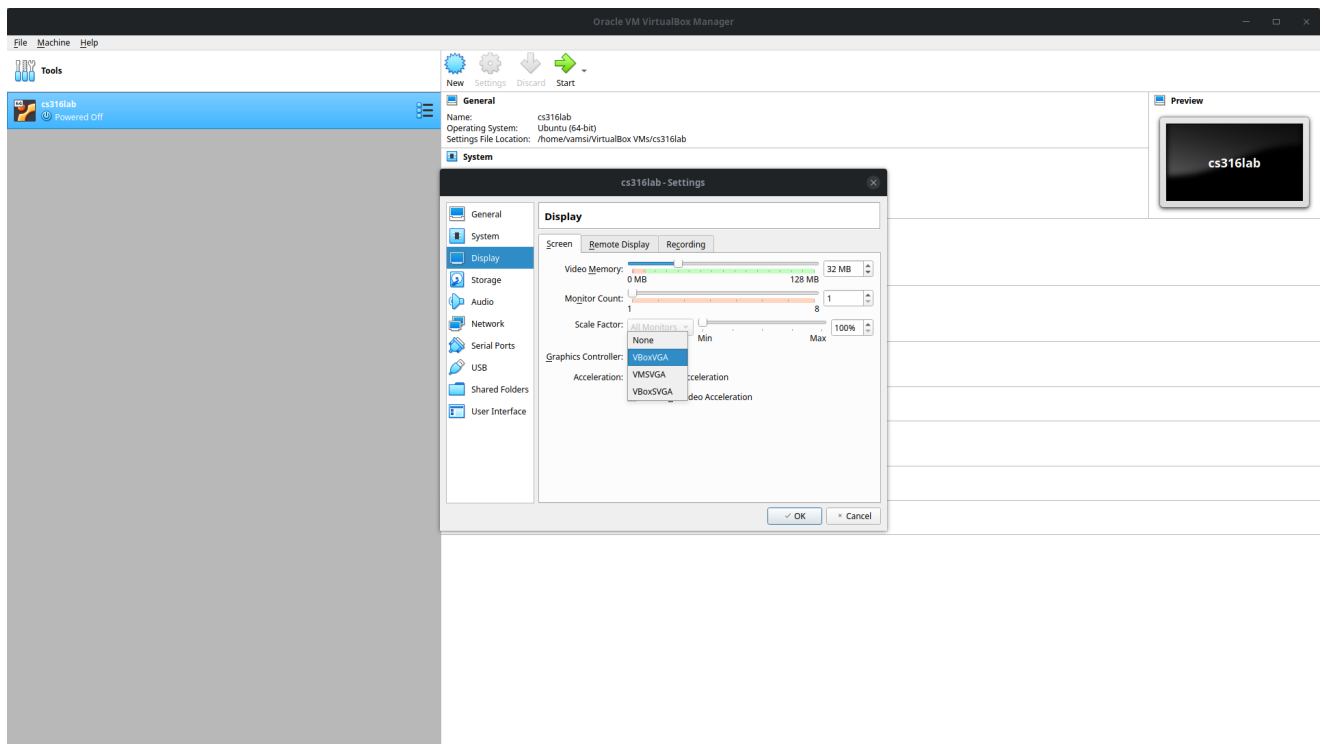
- After your machine has been created go to settings -> System -> Acceleration, make sure **Enable VT-x/ AMD-V** and **Enable Nested Paging** options are checked



- Go to Settings -> Display -> Screen and allocate it more than **32mb** virtual memory



- If you are facing any issues due to screen resolution, go through the different Graphic Controller options present. **VBoxVGA** is the recommended Graphic Controller Setting.



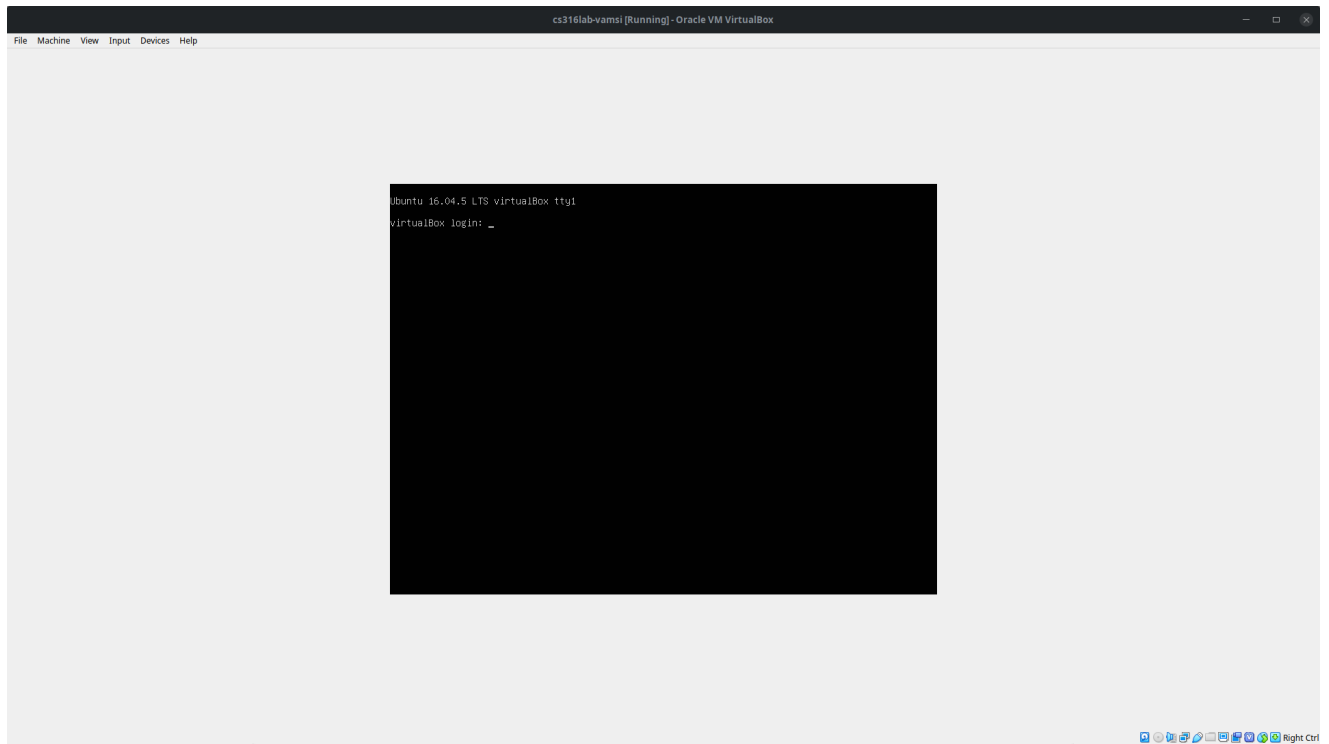
4. Virtual Machine Startup

- Make sure you are connected to **IIT Bombay internal network**, before starting the machine
- Start the newly created Virtual Machine
- You will be presented with an enter passphrase screen, do not press anything and wait for a **minute**

5. Virtual Machine Initial Setup

- After starting the Virtual Machine, wait for a minute at the Enter Passphrase screen, until it takes you in automatically
- You will be presented with a tty screen

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- Enter username: **basicuser**
- Enter password: **1234**
- Run **setup <group{number}> <group password>** in the terminal
- Wait for the system to reboot
- Now the system has been set to be used by your group
- Please enter your **group password** to login
- Open a terminal and run **update** to get the moodle application
- These steps have to be done once per VM, during the initial set-up, from then onwards you can use your group credentials to login

6. Using git and moodle

- **moodle** is a command line application, through which you can submit your labs. Type **moodle --help** in the terminal for usage instructions.
- **Commands:**
 - To see the list of all available labs for the course **moodle --listlabs**
 - To see the status of the lab (Deadline, late submission allowed or not, submission details etc.) **moodle --status --lab <labname>**
Example: **moodle --status --lab Assignmentto2**

- To make a submission to a lab `moodle --upload --lab <labname> --file <filename>`

Example: `moodle --upload --lab Assignment02 --file Assignment02.tar.gz`

Note: Only .tar.gz files can to be submitted. This is enforced to maintain uniformness in submissions. Any file you submit will be stored as <group{no}>.tar.gz on the server for that lab where <group{no}> is your groupno

- To download the submission for a lab

`moodle --download --lab <labname> [--file <filename> | <dirname>]`

Examples: It can be used in three ways:

- 1) `moodle --download --lab Assignment02 --file Assignment02.tar.gz` (Downloads your Assignment02 submission to Assignment02.tar.gz)
- 2) `moodle --download --lab Assignment02 --file Desktop/` (Downloads your Assignment02 submission to Desktop/ as Assignment02_download.tar.gz)
- 3) `moodle --download --lab Assignment02` (Downloads your Assignment02 submission to current directory as Assignment02_download.tar.gz)

- **Git** can be used to sync your repository across your multiple virtual machine instances

- **Git usage:** For a group <group{no}> say group09

- To create your group repository for the first time:

```
mkdir group09
cd group09
git init
git remote add origin git@coffre:group09
touch readme
git add .
git commit -m "Initial commit"
git push origin master
```

- To clone the repository: `git clone git@coffre:group09`

- To push the repository: `git push origin master`

- To pull the repository: `git pull origin master`

- All the git commands work as they are (eg. git log, git checkout, git status, git fetch will work)
- Reference implementations are provided via a public git repository . To download reference implementations use `git clone git://coffre/resources.git`
- Whenever, the reference implementations have been updated use `git pull origin mater` , to download new reference implementations

7. Debugging Installation

- If your VM is unable to start or giving out errors, see that hardware virtualization extensions are enabled in your BIOS
- To check if hardware virtualization is supported by your cpu
run `sudo apt-get install cpu-checker`
then check `kvm-ok`
Ignore `/dev/kvm/` does not exist error if it occurs
Check for `KVM acceleration can be used` or `KVM (vmx) is disabled by your BIOS`
If it is disabled reboot the system and turn it on in BIOS
- If you are still unable to use the system properly, send us a mail at vamsi@cse.iitb.ac.in or bhavan@cse.iitb.ac.in with relevant error information