Tasks and Assignments Course 02267

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Version 1

1 Task (single/group): Instructions for Using the Linux VM ᴛᴀsᴋ_ʟɪɴᴜx

1.1 (single) Log in to Your Group's Virtual Machine

- Command:

```
ssh -i <key-file> root@fm-xx.compute.dtu.dk
```

- Ensure the key file is downloaded in binary mode (no newline or format changes).

- Make sure that the key file has the correct rights. Only users can access the file, but not the 'group' and 'other's. Ssh will tell you if the rights of the key file are too open.

  - On Linux, you can restrict the rights of 'group' and 'other' by executing `chmod go-rwx <key-file>`.
  - On Windows you locate the file in Windows Explorer, right-click on it then select "Properties". Navigate to the "Security" tab and click "Advanced". Change the owner to you, disable inheritance and delete all permissions. Then grant yourself "Full control" and save the permissions.

- Do not enable password-based login; it poses a security risk.

- Do not disable the root account; it must remain accessible for administrative purposes.

1.2 (single) Create Sudo Users

- Steps:

  1. Log in as 'root'.
  2. Add a new user:

     ```
     adduser <username>
     ```

  3. Grant sudo privileges:

     ```
     adduser <username> sudo
     ```

1.3 (single) Enable Public-Key Login for Users

- Steps:

  1. Copy 'root''s SSH configuration to the new user:

     ```
     cp -r /root/.ssh /home/<username>/
     ```

  2. Change directory:

     ```
     cd /home/<username>/
     ```

  3. Update ownership of the `/home/<username>/.ssh` directory and all files within:

```
chown -R <username>:<username> /home/<username>/.ssh
```

– **Important:** Use the full path to avoid affecting the root's '.ssh' directory.

4. Log in as the new user:

```
ssh -i <key-file> <username>@<vm-name>
```

5. Once all group members are configured, root login is generally unnecessary, but the root account must remain enabled.

1.4 (group) Install Java 21 JDK and Maven

- Steps:

   1. Update the repository:

   ```
   sudo apt update
   ```

   2. Install Java 21 JDK:

   ```
   sudo apt install openjdk-21-jdk-headless
   ```

   3. Install Maven:

   ```
   sudo apt install maven
   ```

   4. Ensure Java 21 is also installed on your desktop for consistency.

1.5 Notes

- If you encounter issues, contact the instructor or a TA promptly.