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| **DOCUMENT RULES:** | |
| **Task Number / Name:** | **Task 1 / Local Kubernetes setup using minikube** |
| **Task name & column name should be written:** | **Bold (CTRL+B)** |
| **Commands should be written in the after # sign:** | *Italic (CTRL+I) #hostname* |
| **Output photo should be cropped or compressed:**  **Photo could be more than one:**  **If you need extra lines, add the line next after it:** | ***Description photo should be with title bar (CTRL + I + B)*** |
| **All other text should be written:** | Standard |
| **Font name and text size:** | Calibri and 9 |
| **Group name:** | Dev\_ops\_2 |
| **Student name and surname:** | Huseyin Mammadli |
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| **WhatsApp number:** | **+994555687441** |

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| **#** | **Task names** | **Command steps and outputs** |
| **1** | 1. **Installation and configuration of Desktop Paravirtualization software on your Desktop.** 2. **Minimal installation of CentOS 7 or Ubuntu on the paravirtual software** 3. **Test internet access in the cli of guest VM** 4. **Update and upgrade latest version:** | Please, write commands below on each line  *#sudo apt-get update*  *#sudo apt-get upgrade* |
| **2** | 1. **Check status of firewall and take screen shoot of the cli output:** 2. **Give permanent SSH access from your PC to VM** | **For instance: start**, **stop**, **enable**, **disable**  *#systemctl status firewalld #sudo ufw status*    *#sudo apt-get install openssh-server*  *#sudo service ssh start* |
| **3** | 1. **Output of the previous command in the right column:** 2. **If you need extra lines, add the line next after it:** | Managing system firewall on Red Hat Enterprise Linux |
|  | 1. **Check Guest OS IP address** | *#ip addr* |
| **4** | 1. **To be check connectivity use commands:** | *#ping* [*www.google.com*](http://www.google.com)  *#ping -a* [*www.google.com*](http://www.google.com)  *#ping 172.217.169.100* |
|  | 1. **Output result screen shoot:** |  |
| **5** | 1. **To be check SSH port status:** | *#sudo telnet 10.0.2.15 22 #sudo systemctl status ssh* |
|  | 1. **Output result screen shoot:** |  |
| **6** | 1. **Install SSH client application on your work environment:** | Putty    MobaXterm |
| **7** | 1. **Change host name to anything:** | Your name with prefix local  *#hostname*  *#sudo su*  *#hostname Huseyin* |
|  | 1. **Output result screen shoot:** |  |
| **8** | 1. **Reboot system and repeat 10 and 12 commands** | #reboot    Find alternative commands like init 0-6  <https://linuxonfire.wordpress.com/2012/10/19/what-are-init-0-init-1-init-2-init-3-init-4-init-5-init-6-2/> |
|  | 1. **Take snapshoot o the Guest VM** |  |
|  | 1. **Download minikube, then click copy command and install** | *#curl -LO https://storage.googleapis.com/minikube/releases/latest/minikube-linux-amd64*  *#sudo install minikube-linux-amd64 /usr/local/bin/minikube* |
|  | 1. **Go to run in your windows desktop:** |  |

apache

wordpress installation

LAMP stack installation

Apache install on lin and win

sftp on lin and win

dns on lin and win

disk mgmt on lin and win

nfs creation and connections for lin and win

Git installation and connection lin and win

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| **DOCUMENT RULES:** | |
| **Task number / name:** | **Task 2 / Installing Kubernetes using the Docker Client** |
| **Task name & column name should be written:** | **Bold (CTRL+B)** |
| **Commands should be written in the after # sign:** | *Italic (CTRL+I) #hostname* |
| **Output photo should be cropped or compressed:**  **Photo could be more than one:**  **If you need extra lines, add the line next after it:** | ***Description photo should be with title bar (CTRL + I + B)***  Text  Description automatically generated |
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| **Task names** | **Command steps and outputs** |
| **Installing Kubernetes using the Docker Client:** | Newer edition of Docker allows you install Kubernetes to you PC/laptop.  Docker CE -Community Edition for windows suitable for you  Download stable version or edge version  From this link you can download  <https://docs.docker.com/desktop/windows/install/> |
| **Install and configure it:** | Note: There is no kubernetes menu on stabile version please Install edge version.  1. There is Kubernetes menu please, enable it and apply.  2. Wait 1 minute, kubernetes will run on this machine  For Starting installation process please follow link below  <https://docs.docker.com/desktop/windows/install/#install-docker-desktop-on-windows> |
| **User manual:** | [https://docs.docker.com/desktop/wind8ijm ows/](https://docs.docker.com/desktop/wind8ijm%20ows/) |
| **You can use:** |  |
| **Usefull commands** | *#Kubectl get nodes*  *#Kubectl config get-contexts*  *#Kubectl config get-context NAME* Now switched to context “NAME”  Now you can run some servers  *#Kubectl run hello-kubernetes –-image=k8s.gcr.io/echoserver:1.4 –-port=8080 -> hit enter*  Deployment “hello-kubernetes” created  #kubectl expose deployment hello-kubernetes –type=NodePort  service “hello-kubernetes” exposed  #kubectl get service hello-kubernetes  This command for seeing services and you may see browsers  -> localhost:31453 -> enter you will see response  This your first app |
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