HOW TO PREPARE THE ENVIRONMENT FOR THE TASK: „UKNF REPORTING LEDGER" DURING THE „HACKYEAH" HACKATHON

1.   INTRODUCTION

The aim of the documentation is to show the participant the task how to configure their computers. The configuration methods are described for 3 operating systems: Windows, Linux, macOS. For the needs of the task, has been prepared test network and this document presents configuration guidelines for such a network. The event participant can also download the test network prepared by The Linux Foundation (see point III b.). Additionally, in the prepared configuration package, which will be made available at the start of the event via the GitHub platform, there will be additional clarifying comments (readme).

2.   SAMPLE NETWORK PREPARED BY UKNF

a.   PREPARATION THE OS ENVIRONMENT

i.   WINDOWS / Linux / macOS

1. First, you will need to install a virtual machine with the Linux operating system.
    Ubuntu with GUI: https://ubuntu.com/download/desktop
    Ubuntu server: https://ubuntu.com/download/server
2. Before starting the virtual machine installation, you need to configure port forwarding for SSH service so that you can install the system. For the proper operation of the environment, it will be necessary to perform other redirects, but it will be done at the stage of launching the environment. Redirection by activating the global settings option.
3. During installation, we recommend that you download the "Putty" program and the VSCode "ssh remote" extension (see pictures on the next page).
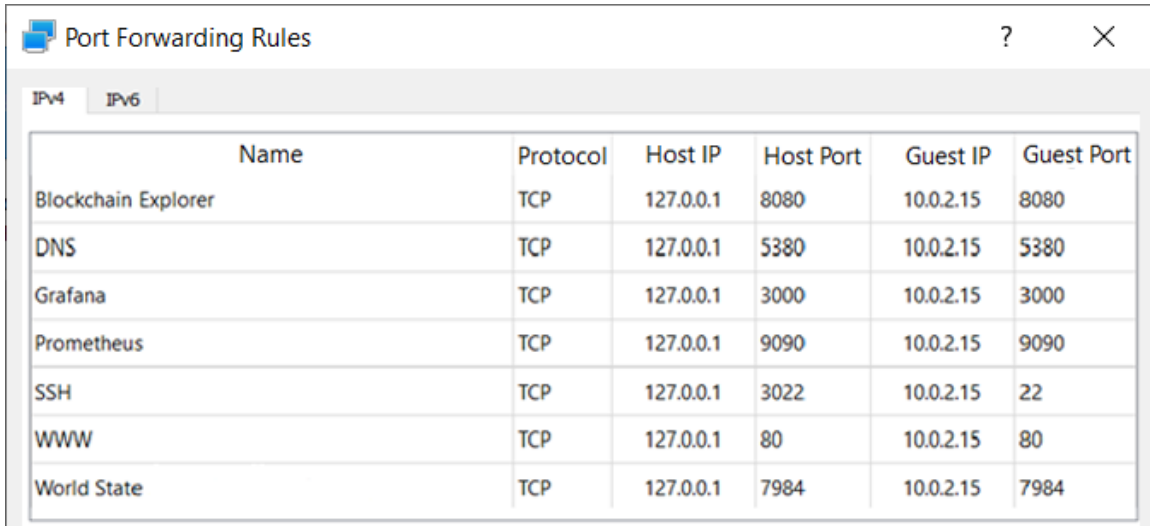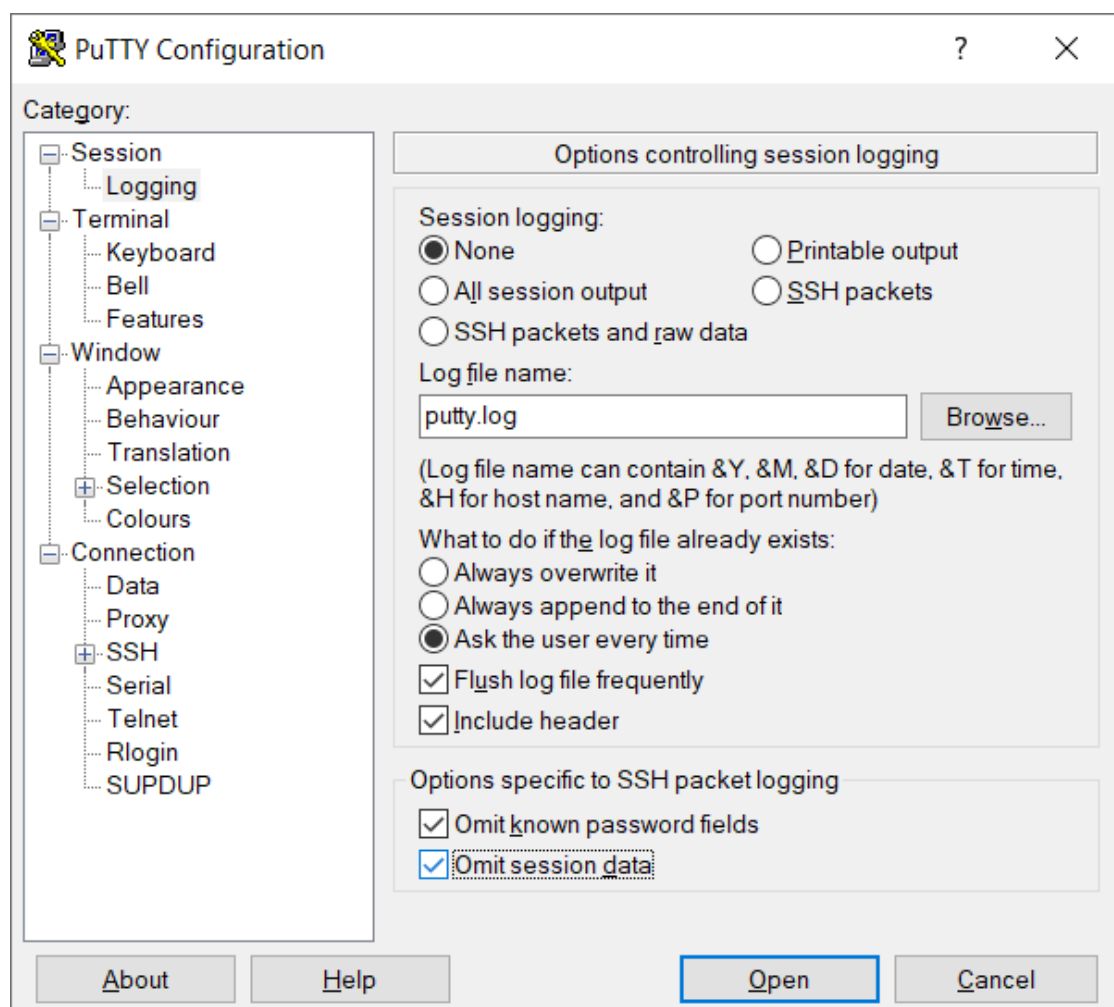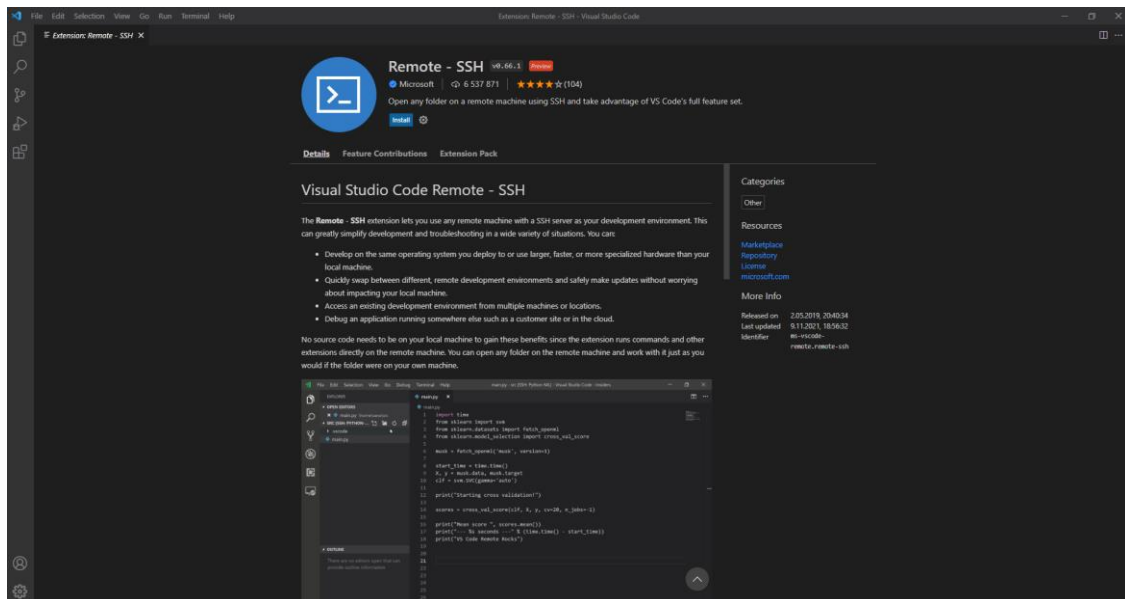
4. After booting the system, download all the required environments (https://hyperledger-fabric.readthedocs.io/en/release-2.2/prereqs.html), which are presented in the additional file.

5. To ensure proper determination of the DNS server's location, it is necessary to enter its address in the resolv.conf file (**nameserver 172.20.0.250**).
    sudo nano /etc/resolv.conf

6. Set in VMBox ports like in the picture below:

Name	Protocol	Host IP	Host Port	Guest IP	Guest Port
Blockchain Explorer	TCP	127.0.0.1	8080	10.0.2.15	8080
DNS	TCP	127.0.0.1	5380	10.0.2.15	5380
Grafana	TCP	127.0.0.1	3000	10.0.2.15	3000
Prometheus	TCP	127.0.0.1	9090	10.0.2.15	9090
SSH	TCP	127.0.0.1	3022	10.0.2.15	22
WWW	TCP	127.0.0.1	80	10.0.2.15	80
World State	TCP	127.0.0.1	7984	10.0.2.15	7984

These ports are crucial for firing components. For other ports, it will be required to change the code in some places.

7. Download the repository from GitHub (you will get the link when the event will start)

ii.   Creating network without Virtual Machine

1. Install the required development environments https://hyperledger-fabric.readthedocs.io/en/release-2.2/prereqs.html.
2. Download the project from Github (you will get the link when the event will start).

4.   ADDITIONAL MATERIALS

a. HYPERLEDGER FABRIC – SAMPLE NETWORK FROM THE LINUX FOUNDATION

1. Create a virtual machine if you work on **windows** and connect to it via ssh
2. If you are using linux or macOS can start without installing VMBox, according to the instructions in the technical documentation https://hyperledger-fabric.readthedocs.io/en/release-2.2/.

3. Install the required development environments https://hyperledger-fabric.readthedocs.io/en/release-2.2/prereqs.html.

4. Download sample-network from GitHub: https://github.com/hyperledger/fabric-samples.

5. Use the technical documentation https://hyperledger-fabric.readthedocs.io/en/release-2.2/

b. IBM BLOCKCHAIN PLATFORM

For management of the network you can also use IBM Blockchain Platform Extension do Visual Studio Code (https://marketplace.visualstudio.com/items?itemName=IBMBlockchain.ibm-blockchain-platform).