Instruction Manual: Setting Up Redis and RabbitMQ using Docker on Windows
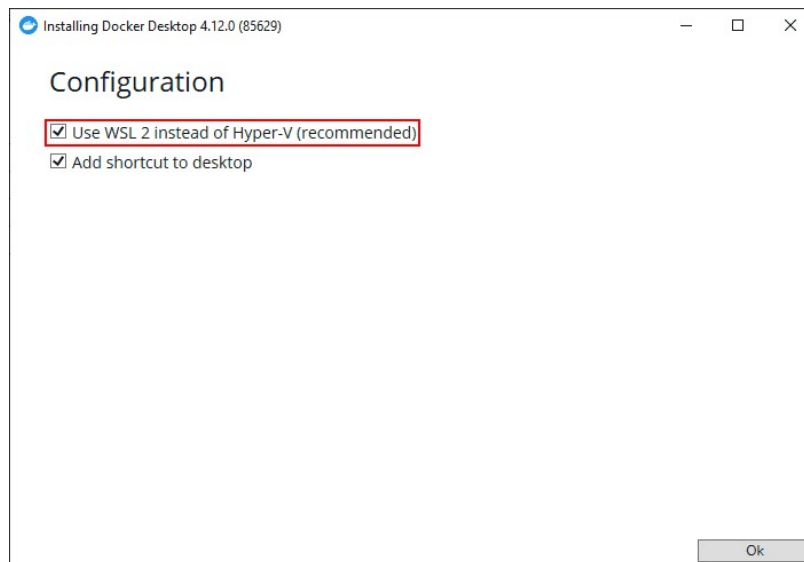
Step 1: Installing Docker on Windows

1. **Download Docker**:

   - Go to the [Docker Desktop for Windows](#) official website.

   - Click on "Download for Windows" and download the installer.

2. **Install Docker**:

   - Find the downloaded Docker installer on your computer.

   - Double-click it to start the installation process.

   - Follow the on-screen instructions and accept the terms and conditions.

   - For detailed Instructions, [visit here.](#)

   - Make sure you have selected **Use WSL 2 instead of Hyper-V** option on the Configuration page while installing.

3. **Start Docker**:

   - Once installed, open Docker Desktop. It might take a few minutes to start the first time.

   - You should see a small Docker icon in your system tray, indicating Docker is running.

Step 2: Installing Redis using Docker

1. **Open Command Prompt**:

   - Press **Windows Key + R**, type **cmd**, and press Enter.

2. **Run Redis Docker Command**:

   - In the Command Prompt, type the following command to start a Redis instance:

```
# latest Redis
    docker run -d --name redis-stack -p 6379:6379 -p 8001:8001
redis/redis-stack:latest
```

3. **Check Redis**:

   - After running the command, you should see a long string of numbers and letters. This means Redis is now running!

   - The Redis server is started at port 6379 and RedisInsight at 8001.

Step 3: Installing RabbitMQ using Docker

1. **Run RabbitMQ Docker Command**:

   - In the Command Prompt, type the following command to start a RabbitMQ instance:

```
# latest RabbitMQ 3.12
    docker run -it --rm --name rabbitmq -p 5672:5672 -p 15672:15672
rabbitmq:3.12-management
```

2. **Check RabbitMQ**:

   - Just like with Redis, you should see a long string of numbers and letters after running the command. This indicates that RabbitMQ is running!

   - The RabbitMQ server is started at port 5672 and RabbitMQ Management at 15672.

Note: Always remember to stop the Redis and RabbitMQ containers when you're done using them.

Troubleshooting:

- **Docker Issues**: If Docker isn't starting or you're experiencing issues, try restarting Docker from the system tray icon or restart your computer.

- **Port Conflicts**: If you have other services running on ports 6379, 8001, 5672, or 15672, you may face conflicts. Ensure these ports are free before starting Redis or RabbitMQ.

- **Docker Updates**: Ensure Docker is updated to the latest version for optimal performance and compatibility.