

Cloud Management System

User Manual

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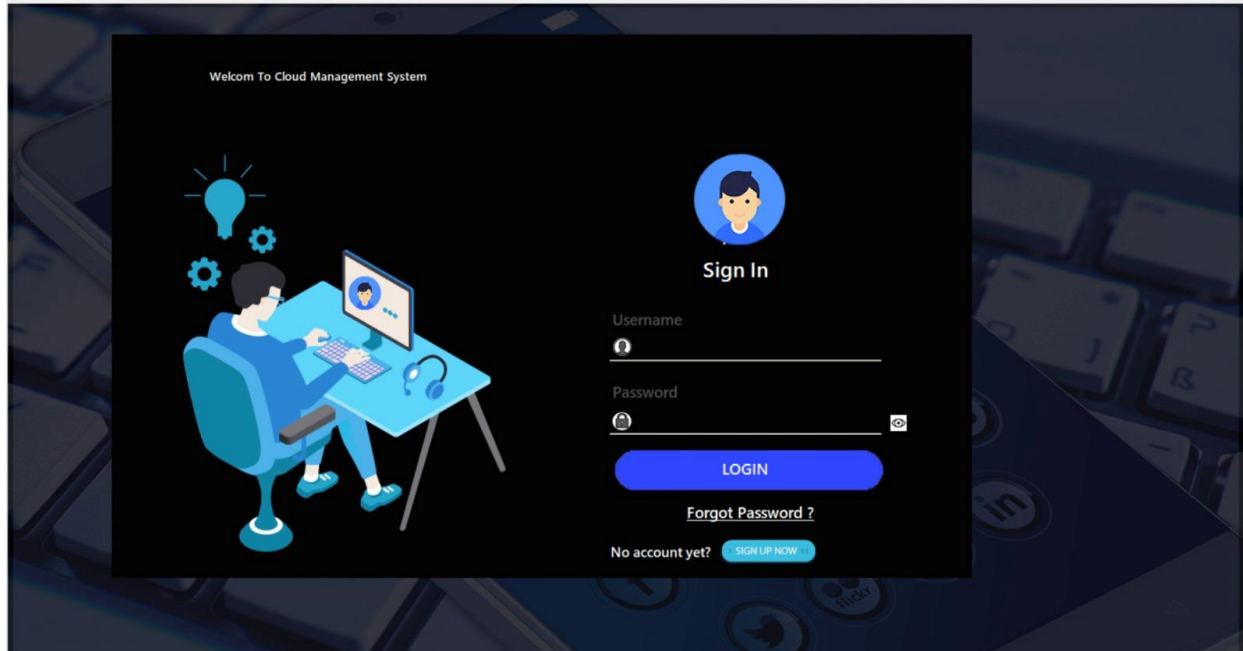
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1. Using the System

Welcome to our user manual, where you'll discover comprehensive guidelines for utilizing our cutting-edge cloud management system.

1.1 Accessing the System

Navigate to the home page to initiate the sign-in process. Enter your username and password. In case you forget your password, simply click on the "Forgot Password" link. If you don't have an account yet, click on "Register Now" to create one.



1.2 System Organization & Navigation

Upon successful login, you will encounter a range of options to cater to your needs:

- Create a Virtual Machine
- Create Docker File
- Build Docker Image
- List Docker Images
- List All Containers
- Stop a container
- Search Image
- Search for image on DockerHub
- Download/Pull image
- EXIT



These options are designed to provide you with a seamless and efficient experience in managing your cloud resources.

1.3 Create a Virtual Machine

To initiate the creation of a virtual machine, follow these steps and provide the specified details:

A screenshot of a "Create VM" form with several input fields and two buttons. The form is titled "Create VM" and has an "Exit" button below it. The fields are: "VM Name:", "OS Type:", "RAM (MB):", "Disk Image Path:", "CPU Cores:", and "Network Model:". Annotations with arrows point to each field, providing instructions on what to enter.

Enter a unique name for your virtual machine, for example, 'aya'.

Specify the operating system type; in this case, set it to "ubuntu".

Allocate the desired amount of RAM to the virtual machine; for example, set it to 8 MB.

Specify the location of the disk image for the virtual machine, such as "Desktop/image.qcow2".

Set the number of CPU cores for the virtual machine; for instance, set it to 2.

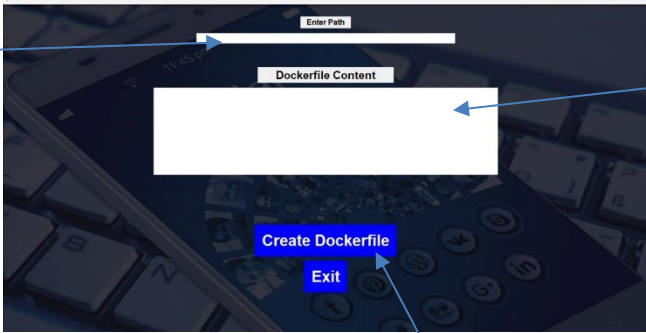
Choose the network model configuration; in this case, set it to "User".

After entering these details, click on the "Create VM" button to initiate the virtual machine creation process.

By following these steps, you'll seamlessly create a virtual machine tailored to your specifications.

1.4 Create Docker File

To generate a Docker file, follow these steps and provide the specified details:



Enter the path to your project directory. For example:
`C:\Users\ayael\OneDrive\Desktop\Project_cloud\test.dockerfile`.

After entering the project directory path and defining the Docker file content, click on "Create Dockerfile" to generate the Docker file.

```
# Use an official Node.js runtime as the base image
FROM node:14

# Set the working directory in the container
WORKDIR /app

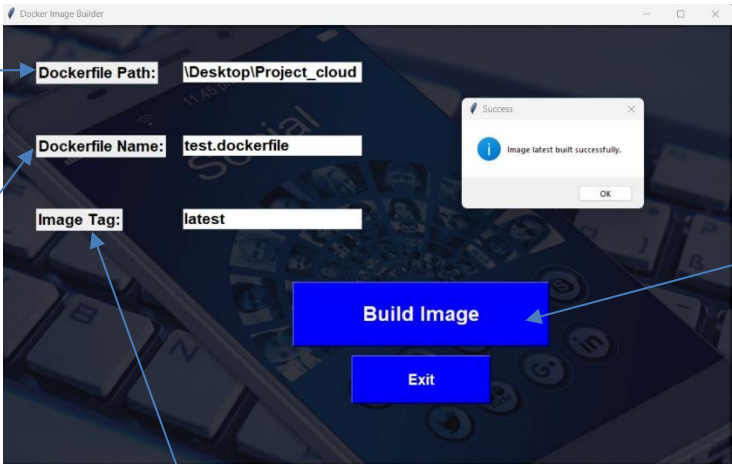
# Copy package.json and package-lock.json to the working directory
COPY package*.json ./

# Install Node.js dependencies
# Add any additional commands or configurations as needed
# Specify any other instructions for your Dockerfile
```

By following these steps, you'll successfully create a Docker file tailored to your project, enabling you to build and deploy your application within a Docker container.

1.5 Build Docker Image

To build a Docker image, follow these steps and provide the specified details:



Specify the path to your Dockerfile. For example:
Desktop\Project_cloud\test.dockerfile.

Enter the name of your Dockerfile. In this case, it's test.dockerfile.

Choose a tag for your Docker image. For instance, set it too latest.

After specifying the Dockerfile path, Dockerfile name, and image tag, click on "Build Image."

Success
Image latest built successfully.

This process will initiate the Docker image building procedure based on the provided Dockerfile and configurations. Ensure that your Dockerfile and configurations are set up correctly to create a successful Docker image.

1.6 List Docker Images

Here you will be presented with a comprehensive overview. This function will list all the docker images found.



Clicking on a specific image will reveal detailed information, including tags and ID.

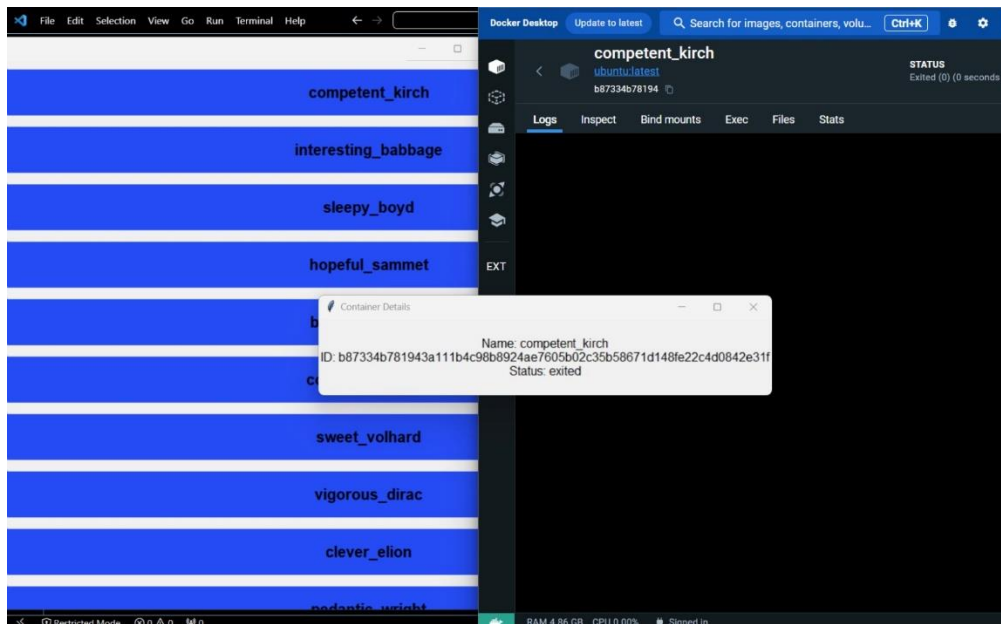
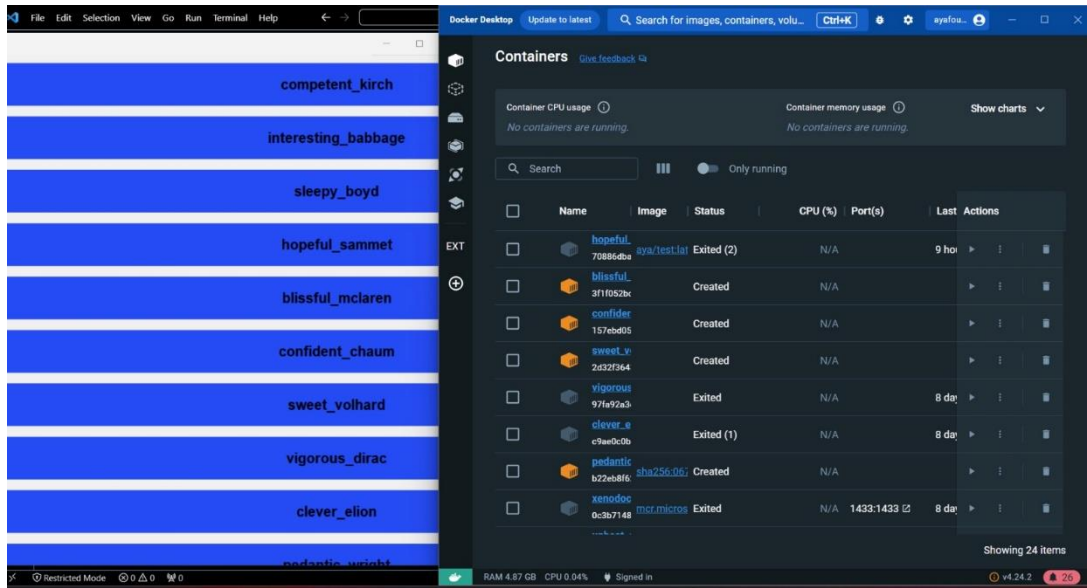


This functionality provides a convenient way to inspect and manage your Docker images efficiently.

1.7 List All Containers

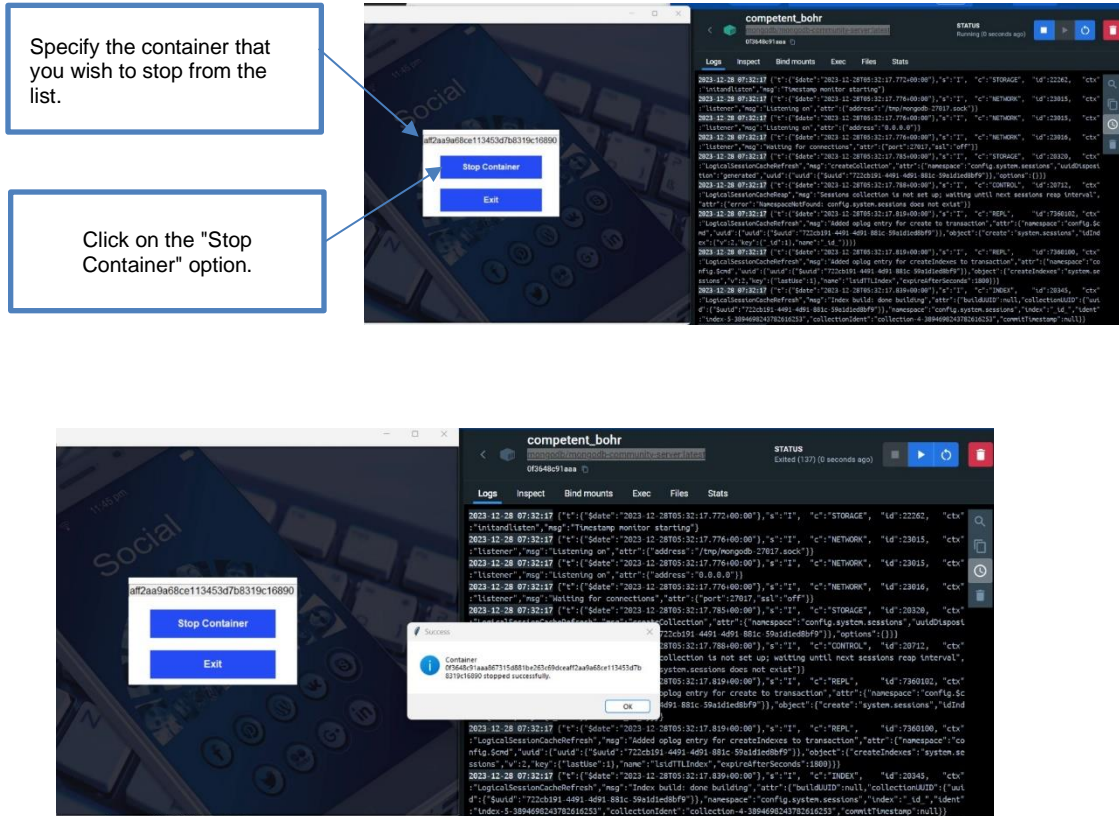
Here a comprehensive list of all containers will be displayed. Clicking on a specific container will trigger the display of detailed information, encompassing its name, ID, and status. This feature allows for quick and convenient oversight of your containers, facilitating effective management and troubleshooting.





1.8 Stop A Container

To halt a specific container, follow these steps:

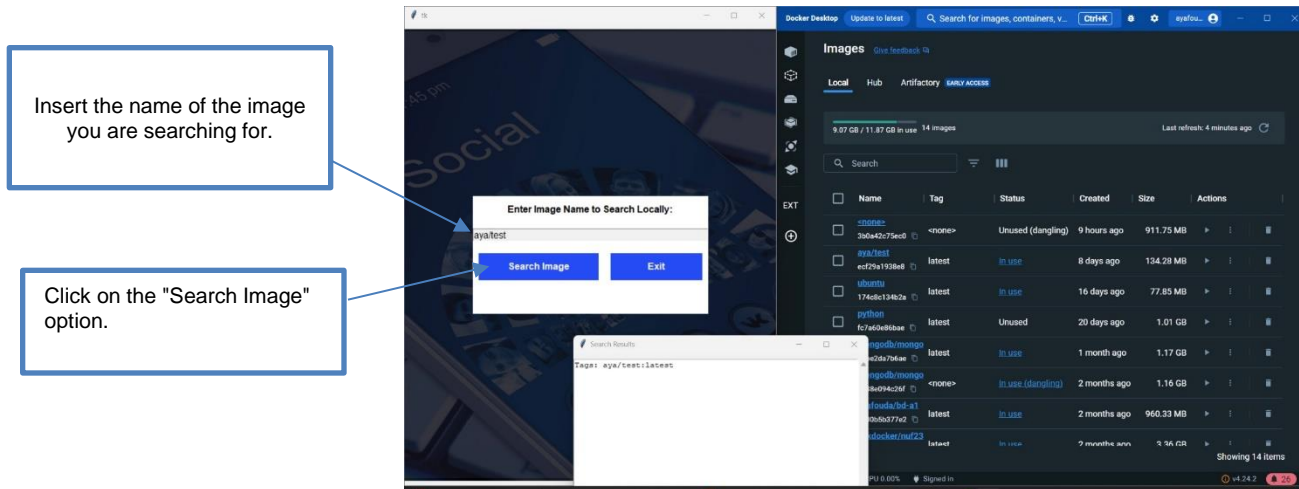


This action will initiate the process of stopping the chosen container.

Ensure that you've selected the correct container before confirming to prevent unintended disruptions.

1.9 Search Image

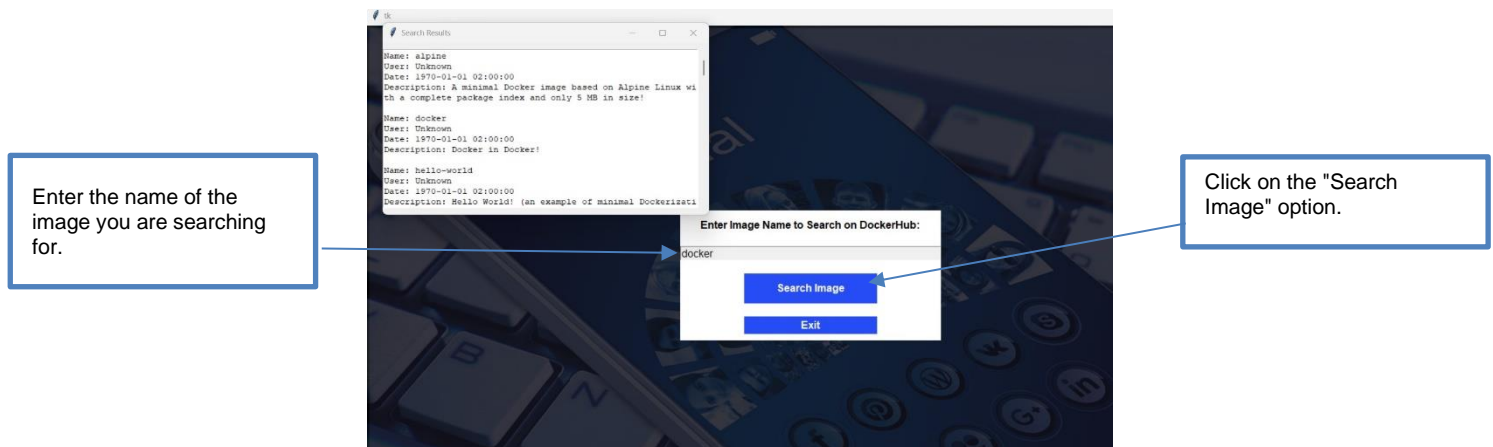
To find a specific Docker image, follow these steps:



This process will initiate a search for the specified image, providing you with relevant results based on the entered image name. Ensure accuracy in the image name to obtain the desired search outcome.

1.10 Search for image on DockerHub

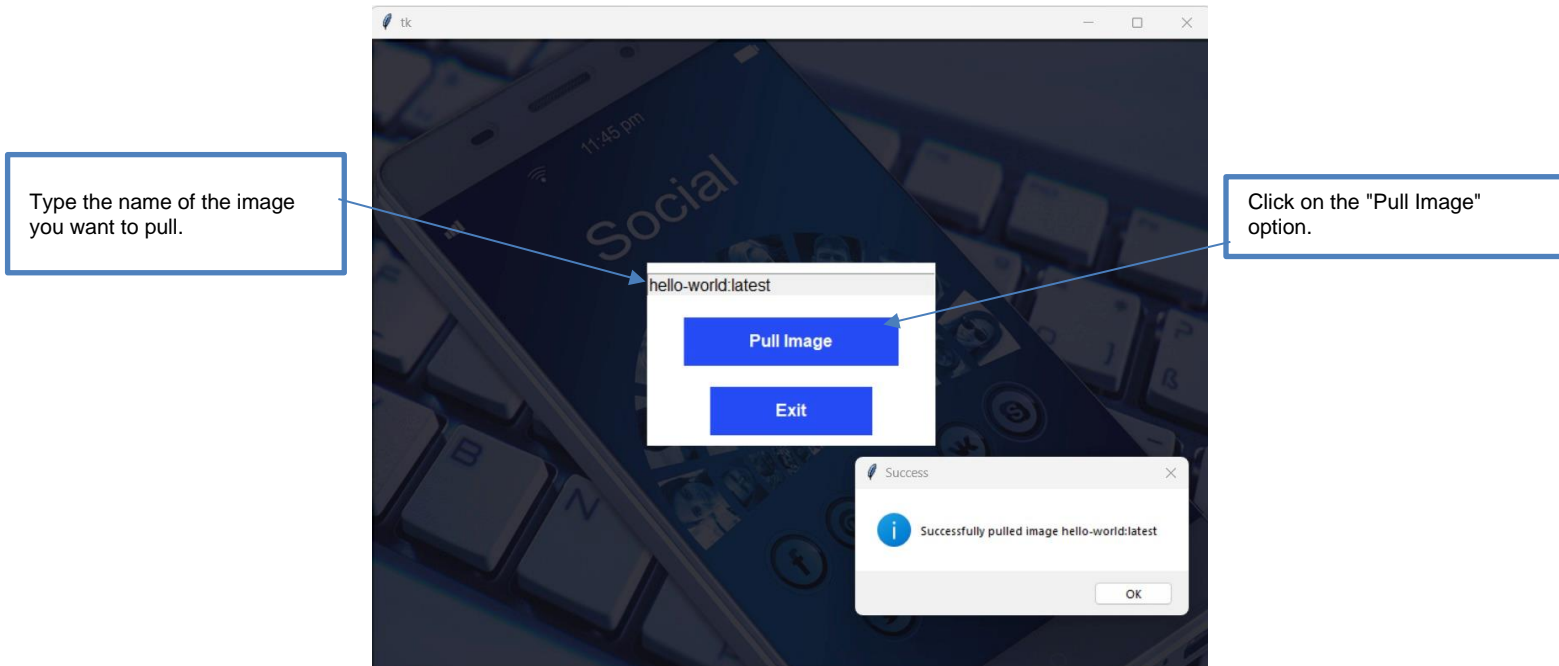
To locate an image on DockerHub, follow these steps:



Upon executing this command, detailed information about the specified image will be displayed. This includes the image name, user, date, and a description, offering valuable insights into the Docker image hosted on DockerHub.

1.11 Download/Pull image

To download or "pull" a Docker image, follow these steps:



This action will initiate the process of fetching the specified Docker image from the repository. Ensure that the image name is accurate, and by clicking "Pull Image," you will download the desired Docker image to your local environment.

1.12 Exit

To gracefully exit the system, follow these steps:

- Look for the "Exit" option.
- Click on "Exit" to close the system.

This action will safely conclude your session and exit the cloud management system.

