

COMP 6231 Assignment 3

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Task 1:

File Server Commands Explanation

1. Docker image creation:

- **Client:** Navigate to the `Task1/client` directory and build the Docker image for the client using the command:

```
docker build --tag task1_client .
```

This command creates a Docker image named `task1_client` based on the instructions in the `Dockerfile` located in the current directory. The content of the `Dockerfile` is as follows:

```
FROM ozxx33/fileserver-base
WORKDIR /usr/src/app
COPY . .
CMD ["python", "./client.py"]
```

- **Server:** Navigate to the `Task1/server` directory and build the Docker image for the server using the command:

```
docker build --tag task1_server .
```

This command creates a Docker image named `task1_server` based on the instructions in the `Dockerfile` located in the current directory. The content of the `Dockerfile` is as follows:

```
FROM ozxx33/fileserver-base
WORKDIR /usr/src/app
COPY ./server.py .
EXPOSE 65432
CMD ["python", "./server.py"]
```

2. Running Docker containers:

- **Server:** To run the server container, use the command:

```
docker run -it --name socket_server --network host task1_server
```

This command starts a new container named `socket_server` in interactive mode from the `task1_server` image. The `--network host` option allows the container to share the host's network stack, enabling it to listen for incoming connections on the host's network interfaces. The `-it` option allows for interactive terminal access to the server container.

- **Client:** To run the client container, use the command:

```
docker run -it --name socket_client --network host task1_client
```

This command starts a new container named `socket_client` from the `task1_client` image. The `--network host` option allows the client container to share the host's network stack, enabling it to communicate with the server running on the host machine. The `-it` option allows for interactive terminal access to the client container.