**Basic concept of making Dockerfiles**

| **Command** | **Description** |
| --- | --- |
| ADD | Copies a file from the host system onto the container |
| CMD | The command that runs when the container starts |
| ENTRYPOINT |  |
| ENV | Sets an environment variable in the new container |
| EXPOSE | Opens a port for linked containers |
| FROM | The base image to use in the build. This is mandatory and must be the first command in the file. |
| MAINTAINER | An optional value for the maintainer of the script |
| ONBUILD | A command that is triggered when the image in the Dcokerfile is used as a base for another image |
| RUN | Executes a command and save the result as a new layer |
| USER | Sets the default user within the container |
| VOLUME | Creates a shared volume that can be shared among containers or by the host machine |
| WORKDIR | Set the default working directory for the container |

Once you've created a Dockerfile and added all your instructions, you can use it to build an image using the docker build command. The format for this command is:

docker build [OPTIONS] PATH | URL | -

***Before building note[On Windows]***

1. **Name of docker file must be “Dockerfile” with “.” (dot) extension**

**Ex to build image:**

**docker build -t "hello\_python:dockerfiles" C:\Users\admin\Desktop\pythondockerfile**

Run local image:

docker run -it myimage:0.1

**Best Complete example (Windows)**

Dockerfile:

#simple example of dockerfile

FROM ubuntu:latest

MAINTAINER singhsushil5277@gmail.com

RUN apt-get update

RUN apt-get install -y python

COPY hello.py /home

WORKDIR /home

Bulit command:

docker build –t "hello\_python:dockerfiles" C:\Users\admin\Desktop\pythondockerfiles

Run Command:

docker run -it hello\_python:dockerfiles python hello.py

Pull

Ex: docker pull sk5277/fintech:1.0

Note:

sk5277/fintech-> repo name

1.0 -> tag name [which is shown in repo]