DockerFile Syntax

It consists of two kind of main line blocks : Command and Command + Arguments

**Docker Commands used in File:-**

**FROM:**

FROM directive is probably the most crucial amongst all other for Dockerfiles. It defines the base image to use to start the build process.

Example:-

# Usage: FROM [Image Name]

FROM Ubuntu

**RUN:**

It is the central executing directive for Dockerfiles. It takes a command as it’s argument and runs it to form the image. Unlike CMD, it actually is used to build the image.

Example:-

# Usage: RUN [command]

RUN apt-get install –y riak

**CMD:**

It is similar to RUN, can be used for executing a specific command. However, unlike RUN it is not executed during build, but when a container is instantiated using the image being built.

Example:-

# Usage: CMD application “argument”, “argument”, …..

CMD “echo” “Hello world”

**ENDPOINT:**

ENTRYPOINT argument sets the concrete default application that is used every time a container is created using the image.

It suggest that once you finish building your Docker image, and you run the Docker container of that Docker image, then the command which is specify as ENTRYPOINTwill be executed first.

Example:-

# Usage: ENTRYPOINT application “argument”, “argument”, ..

# Remember argument are optional. They can be provided by CMD

# or during the creation of a container.

ENTRYPOINT echo

# Usage example with CMD

# Argument set with CMD can be overridden during “run” CMD “hello”

CMD “Hello world”

ENDPOINT echo

**ADD:**

ADD command gets two arguments: a source and a destination. It basically copies the files from the source on the host into the container’s own filesystem at the set destination.

Example:-

# Usage: Add [source directory or URL] [Destination directory]

ADD /source\_folder /desitnation\_folder

**WORKDIR:**

It is used to set where command defined with CMD is to be executed.

Example:

WORKDIR /path WORKDIR ~/

**ENV:**

It is used to set the environment variables (one or more). These variables consist of “KEY-VALUE” pairs which can be accessed within the container by script.

Example:

# Usage: ENV key value

ENV SERVER\_WORKS 4

**EXPOSE:**

It is used to associate a specific port to enable networking between the running process inside the container and the outside world.

Example:

# Usage: EXPOSE [port]

EXPOSE 8080

**MAINTAINER:**

This non-executing command declares the author, hence setting the author field of the images. It should come nonetheless after FROM.

Example:-

# Usage: MAINTAIN [name]

MAINTAIN author\_name

**USER:**

It is used to set the UID or Username which is to run the container based on the image being built.

Example:-

# Usage: USER [UID]

USER 751

**VOLUME:**

It is used to enable access from your container to a directory on the host machine (i.e mounting it).

Example:-

# Usage: VOLUME [“/dir\_1”, “/dir\_2”]

VOLUME [“/my\_files”]

**Most used Docker command:**