**Docker-file Explanation**

1. **Base Image**

dockerfile

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FROM ubuntu:20.04

* + **Explanation**: Specifies Ubuntu 20.04 as the base image for this Docker image. The FROM instruction sets the base image for subsequent instructions.

1. **Environment Variable**

dockerfile

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ENV DEBIAN\_FRONTEND=noninteractive

* + **Explanation**: Sets the DEBIAN\_FRONTEND environment variable to noninteractive. This prevents apt-get from prompting for any user input during package installations, ensuring the Docker build process runs without interruptions.

1. **Apache HTTP Server Installation**

dockerfile

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RUN apt-get update && \

apt-get install -y apache2 && \

apt-get clean && \

rm -rf /var/lib/apt/lists/\*

* + **Explanation**:
    - apt-get update: Updates the package lists from the repositories to get the latest versions of packages and their dependencies.
    - apt-get install -y apache2: Installs Apache HTTP Server (apache2) and automatically answers "yes" to all prompts (-y flag).
    - apt-get clean: Clears out the local repository of retrieved package files, freeing up disk space.
    - rm -rf /var/lib/apt/lists/\*: Removes temporary package files left from package installations.

1. **Copy HTML Files**

dockerfile

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COPY ./website/ /var/www/html/

* + **Explanation**: Copies the contents of the ./website/ directory from the Docker build context (your local machine) into the /var/www/html/ directory inside the Docker container. This is where Apache HTTP Server serves files by default.

1. **Expose Port**

dockerfile

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EXPOSE 80

* + **Explanation**: Informs Docker that the container listens on port 80 at runtime. This does not actually publish the port; it serves as documentation and is typically used with docker run -p to map ports.

1. **Start Apache HTTP Server**

dockerfile

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CMD ["apache2ctl", "-D", "FOREGROUND"]

* + **Explanation**: Specifies the command to run when the container starts. apache2ctl is used to start Apache HTTP Server (apache2) in the foreground (-D FOREGROUND), keeping the container running as long as Apache is active.

**Summary**

This Dockerfile sets up a Docker image based on Ubuntu 20.04 with Apache HTTP Server installed. It copies your local HTML files into the container, exposes port 80 for web traffic, and starts Apache HTTP Server to serve these files. The use of ENV DEBIAN\_FRONTEND=noninteractive ensures that the installation process for Apache and any other packages is non-interactive, allowing for smooth and automated Docker builds.

If you encounter the region zone bug use

**Set environment variable to noninteractive**:

dockerfile

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ENV DEBIAN\_FRONTEND=noninteractive

This line sets the environment variable DEBIAN\_FRONTEND to noninteractive, which tells apt-get to run in non-interactive mode, avoiding any prompts during package installation