Dockerfile from php 8.1

1-dockerfile :

A-description :

use an official php as a parent image to :

- set working directory
- install dependencies: nginx ...
- install php extensions
- install composer
- copy the application code inside container
- copy nginx cofiguration file
- change the owner of the var/www/html directory to www-data.

B-code:

Use an official PHP runtime as a parent image
FROM php:8.1-fpm
USER root
Set the working directory to /app
WORKDIR /var/www/html

Install any necessary dependencies
RUN apt-get update && apt-get install -y \
    nginx \
    libpng-dev \
    libonig-dev \
    libxml2-dev \
    libzip-dev \
    zip \
    unzip
RUN apt-get upgrade -y

Install PHP extensions
RUN docker-php-ext-install pdo pdo_mysql zip gd mbstring exif pcntl bcmath opcache

Install composer
RUN curl -sS https://getcomposer.org/installer | php -- --install-dir=/usr/local/bin --filename=composer

```
# Copy the application code into the container
COPY . /var/www/html

RUN composer install

RUN chmod -R 777 /var/www/html

# Copy the Nginx configuration file
COPY ./site.conf /etc/nginx/conf.d/default.conf
COPY ./site.conf /etc/nginx/conf.d/default.conf

# Set the appropriate permissions on the application directory
RUN chown -R www-data:www-data /var/www/html
EXPOSE 80
CMD service nginx start && php-fpm
```

2-nginx configuration file :

A-Description :

- **nginx** : is open-source web server software :
  performance and scalability
  can be configured as reverse proxy server , A load
  balancer , API gateway , firewall for web applications ,
- This is an Nginx configuration file to listen on port 80:
  must listen for HTTP connections. and responds the
  requests by server name: localhost
- NGINX's location setting help for NGINX responds to
  requests for resources inside the server

B-code :

```
server {
    listen 80;
    server_name localhost;

    root /var/www/html/public;

    index index.php index.html index.htm;

    location / {
        try_files $uri $uri/ /index.php$is_args$args;
    }
```

```
    location ~ \.php$ {
        try_files $uri =404;
        fastcgi_split_path_info ^(.+\.php)(/.+)$;
        fastcgi_pass 127.0.0.1:9000;
        fastcgi_index index.php;
        include fastcgi_params;
        fastcgi_param SCRIPT_FILENAME $document_root$fastcgi_script_name;
        include /etc/nginx/fastcgi.conf;
    }
    location ~ /\.ht {
        deny all;
    }
}
```