**Linux Based Apache Server Hosting Guide**

**(MERN Stack)**

**If hosting server is running on IP Address**

* To serve React build on hosting server using only IP address and specific port.
  + Example: <http://93.127.195.119:3000/>

**Step 1:**

* Ensure Required Modules are enabled.
* You need to have proxy and proxy\_http modules enabled.
* Run the following commands to enable them.

**Ex:**

sudo a2enmod proxy

sudo a2enmod proxy\_http

sudo systemctl restart apache2

sudo a2enmod rewrite (Enable this for solving React Routing Issue)

**Step 2:**

* Set Up a Virtual Host for React.
* Create a virtual host configuration for your React app.
* Create a file named react-app.conf in /etc/apache2/sites-available/

sudo nano /etc/apache2/sites-available/react-app.conf

**Ex:**  
<VirtualHost \*:3000>

ServerAdmin webmaster@localhost

DocumentRoot /var/www/html/client

<Directory /var/www/html/client>

Options Indexes FollowSymLinks

AllowOverride All

Require all granted

</Directory>

ErrorLog ${APACHE\_LOG\_DIR}/react-app-error.log

CustomLog ${APACHE\_LOG\_DIR}/react-app-access.log combined

</VirtualHost>

**Step 3:**

* Enable the New Virtual Host.

**Ex:**

sudo a2ensite react-app.conf

sudo systemctl reload apache2

**Step 4:**

* Listen on Port 3001.
* Ensure that Apache is configured to listen on port 3000. Open the ports configuration file

sudo nano /etc/apache2/ports.conf

**Ex:**  
Listen 3000

**Step 5:**

* Restart Apache

**Ex:**

sudo systemctl restart apache2

**Step 6:**

* Ensure that your firewall allows traffic on port 3000. For example, if you are using **ufw.**

**Ex:**

sudo ufw allow 3000/tcp

**Step 7:**

* Upload your build files to /var/www/html/client folder and create .htaccess file in the client folder.
* Write the below configuration in .htaccess file.

**Ex:**

<IfModule mod\_rewrite.c>

RewriteEngine On

RewriteBase /

RewriteRule ^index\.html$ - [L]

RewriteCond %{REQUEST\_FILENAME} !-f

RewriteCond %{REQUEST\_FILENAME} !-d

RewriteRule ^ /index.html [L]

</IfModule>

**Step 7: OR**

* Add a fallback resource line in Virtual Host configuration file like below.

**Ex:**

FallbackResource /index.html

* To serve React Admin build on hosting server using only IP address and specific port.
  + Example: <http://93.127.195.119:3001/>

**Step 1:**

* Ensure Required Modules are enabled.
* You need to have proxy and proxy\_http modules enabled.
* Run the following commands to enable them.

**Ex:**

sudo a2enmod proxy

sudo a2enmod proxy\_http

sudo systemctl restart apache2

**Step 2:**

* Set Up a Virtual Host for React.
* Create a virtual host configuration for your React app.
* Create a file named admin.conf in /etc/apache2/sites-available/

sudo nano /etc/apache2/sites-available/admin.conf

**Ex:**  
<VirtualHost \*:3001>

ServerAdmin webmaster@localhost

DocumentRoot /var/www/html/admin

<Directory /var/www/html/admin>

Options Indexes FollowSymLinks

AllowOverride All

Require all granted

</Directory>

ErrorLog ${APACHE\_LOG\_DIR}/admin-error.log

CustomLog ${APACHE\_LOG\_DIR}/admin-access.log combined

</VirtualHost>

**Step 3:**

* Enable the New Virtual Host.

**Ex:**

sudo a2ensite react-app.conf

sudo systemctl reload apache2

**Step 4:**

* Listen on Port 3001.
* Ensure that Apache is configured to listen on port 3000. Open the ports configuration file

sudo nano /etc/apache2/ports.conf

**Ex:**  
Listen 3001

**Step 5:**

* Restart Apache

**Ex:**

sudo systemctl restart apache2

**Step 6:**

* Ensure that your firewall allows traffic on port 3001. For example, if you are using **ufw.**

**Ex:**

sudo ufw allow 3001/tcp

**Step 7:**

* Upload your build files to /var/www/html/admin folder and create .htaccess file in the admin folder.
* Write the below configuration in .htaccess file.

**Ex:**

<IfModule mod\_rewrite.c>

RewriteEngine On

RewriteBase /

RewriteRule ^index\.html$ - [L]

RewriteCond %{REQUEST\_FILENAME} !-f

RewriteCond %{REQUEST\_FILENAME} !-d

RewriteRule ^ /index.html [L]

</IfModule>

**Step 7: OR**

* Add a fallback resource line in Virtual Host configuration file like below.

**Ex:**

FallbackResource /index.html

* To Host Node backend server code on Linux based Apache Server using pm2

**Step 1:**

* Upload all your backend code of files on /var/www/html/server folder

**Step 2:**

* Install pm2 globally on server

**Ex:**

npm i pm2 –g

**Step 3:**

* Start main file i.e index.js or app.js with specific pm2 service name and port

**Ex:**

pm2 start index.js or app.js --name "server\_name" --env PORT=8080