Access the Web Page through LB

First create 6 instances  
2 instances of named index\_instance

2 instances of named api\_instance

2 instances of named admin\_instance

**Index.html code to add in index\_instance user data**

#!/bin/bash

# Wait until internet is available

while ! ping -c 1 -W 5 8.8.8.8 &>/dev/null; do

echo "Waiting for internet connection..."

sleep 5

done

# Update and install httpd

sudo yum update -y

sudo yum install -y httpd

# Start and enable httpd

sudo systemctl start httpd

sudo systemctl enable httpd

# Set proper ownership and permissions

sudo chown -R apache:apache /var/www/html

sudo chmod -R 755 /var/www/html

# Create the index.html page with your custom content

cat <<EOF | sudo tee /var/www/html/index.html

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8" />

<meta name="viewport" content="width=device-width, initial-scale=1.0" />

<title>ALB Path-Based Routing Demo</title>

<link href="https://fonts.googleapis.com/css2?family=Quicksand:wght@500&display=swap" rel="stylesheet" />

<style>

\* {

margin: 0;

padding: 0;

box-sizing: border-box;

font-family: 'Quicksand', sans-serif;

}

body {

background: linear-gradient(135deg, #74ebd5, #ACB6E5);

height: 100vh;

display: flex;

align-items: center;

justify-content: center;

text-align: center;

color: #333;

}

.container {

background: white;

padding: 40px;

border-radius: 20px;

box-shadow: 0 20px 30px rgba(0, 0, 0, 0.1);

width: 90%;

max-width: 600px;

transition: transform 0.3s ease;

}

.container:hover {

transform: scale(1.02);

}

h1 {

font-size: 2.5em;

margin-bottom: 10px;

color: #444;

}

p {

font-size: 1.2em;

margin-bottom: 30px;

color: #555;

}

.links {

display: flex;

flex-direction: column;

gap: 20px;

}

a {

text-decoration: none;

padding: 15px 25px;

background-color: #007BFF;

color: white;

border-radius: 10px;

font-size: 1.1em;

transition: background-color 0.3s ease;

}

a:hover {

background-color: #0056b3;

}

@media (min-width: 600px) {

.links {

flex-direction: row;

justify-content: center;

}

}

</style>

</head>

<body>

<div class="container">

<h1>Welcome to the ALB Routing Demo</h1>

<p>This is the main landing page. Choose a service to proceed:</p>

<div class="links">

<a href="/admin/">Visit Admin Page</a>

<a href="/api/">Visit API Page</a>

</div>

</div>

</body>

</html>

EOF

**api.html code to add in index\_instance user data**

#!/bin/bash

# Wait until internet is available

while ! ping -c 1 -W 5 8.8.8.8 &>/dev/null; do

echo "Waiting for internet connection..."

sleep 5

done

# Update and install Apache HTTP Server

sudo yum update -y

sudo yum install -y httpd

# Start and enable httpd

sudo systemctl start httpd

sudo systemctl enable httpd

# Set ownership and permissions

sudo chown -R apache:apache /var/www/html

sudo chmod -R 755 /var/www/html

# Create directory for API page

sudo mkdir -p /var/www/html/api

# Create API index.html

cat <<EOF | sudo tee /var/www/html/api/index.html

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8" />

<meta name="viewport" content="width=device-width, initial-scale=1.0" />

<title>API Page</title>

<link href="https://fonts.googleapis.com/css2?family=Quicksand:wght@500&display=swap" rel="stylesheet" />

<style>

body {

margin: 0;

font-family: 'Quicksand', sans-serif;

background: linear-gradient(135deg, #fdfbfb, #ebedee);

display: flex;

height: 100vh;

justify-content: center;

align-items: center;

}

.card {

background: white;

padding: 40px;

border-radius: 20px;

box-shadow: 0 20px 30px rgba(0, 0, 0, 0.1);

text-align: center;

max-width: 600px;

}

h1 {

color: #007BFF;

margin-bottom: 20px;

}

p {

font-size: 1.2em;

color: #444;

margin-bottom: 30px;

}

a {

text-decoration: none;

padding: 12px 20px;

background-color: #28a745;

color: white;

border-radius: 8px;

font-size: 1em;

transition: background-color 0.3s;

}

a:hover {

background-color: #218838;

}

</style>

</head>

<body>

<div class="card">

<h1>API Service</h1>

<p>This page is served from the API target group behind the ALB.</p>

<a href="/">← Back to Home</a>

</div>

</body>

</html>

EOF

**admin.html code to add in index\_instance user data**

#!/bin/bash

# Wait until internet is available

while ! ping -c 1 -W 5 8.8.8.8 &>/dev/null; do

echo "Waiting for internet connection..."

sleep 5

done

# Update and install Apache HTTP Server

sudo yum update -y

sudo yum install -y httpd

# Start and enable httpd

sudo systemctl start httpd

sudo systemctl enable httpd

# Set ownership and permissions

sudo chown -R apache:apache /var/www/html

sudo chmod -R 755 /var/www/html

# Create directory for Admin page

sudo mkdir -p /var/www/html/admin

# Create Admin index.html

cat <<EOF | sudo tee /var/www/html/admin/index.html

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8" />

<meta name="viewport" content="width=device-width, initial-scale=1.0" />

<title>Admin Page</title>

<link href="https://fonts.googleapis.com/css2?family=Quicksand:wght@500&display=swap" rel="stylesheet" />

<style>

body {

margin: 0;

font-family: 'Quicksand', sans-serif;

background: linear-gradient(135deg, #ffe6e6, #fce3ec);

display: flex;

height: 100vh;

justify-content: center;

align-items: center;

}

.card {

background: white;

padding: 40px;

border-radius: 20px;

box-shadow: 0 20px 30px rgba(0, 0, 0, 0.1);

text-align: center;

max-width: 600px;

}

h1 {

color: #d63384;

margin-bottom: 20px;

}

p {

font-size: 1.2em;

color: #555;

margin-bottom: 30px;

}

a {

text-decoration: none;

padding: 12px 20px;

background-color: #6f42c1;

color: white;

border-radius: 8px;

font-size: 1em;

transition: background-color 0.3s;

}

a:hover {

background-color: #5936a2;

}

</style>

</head>

<body>

<div class="card">

<h1>Admin Dashboard</h1>

<p>This page is served from the Admin target group behind the ALB.</p>

<a href="/">← Back to Home</a>

</div>

</body>

</html>

EOF

Next after creating instances create 3 target groups namely indexTG add index instances and health is /  
next apiTG add api instances and health is /api/

next adminTG add admin instances and health is /admin/

now create a load balancer namely indexLB with the indexTG  
after creating load balancer go to that indextg added then add rule the path then /app\* create

similarly for admin

then after creating all these things open load balancer dns and verify















