This lab was originally from the lab Going from single server to serverless from 3 labs free until August 15 but this time used in Local DynamoDB and have minimal improvements on webpage.

aws

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**System Used:**
Windows 10 OS with WSL2 Ubuntu 22.04
Recommended Browsers: Edge and Chrome

**Pre-requisites inside WSL2 Ubuntu 22.04:**
Install php (PHP 8.1.2-1ubuntu2.13): sudo apt install php
To verify installed php, execute php -v:

```
root@DESKTOP-JLEGGJC:/var/www/php# php -v
PHP 8.1.2-1ubuntu2.13 (cli) (built: Jun 28 2023 14:01:49) (NTS)
Copyright (c) The PHP Group
Zend Engine v4.1.2, Copyright (c) Zend Technologies
    with Zend OPcache v8.1.2-1ubuntu2.13, Copyright (c), by Zend Technologies
root@DESKTOP-JLEGGJC:/var/www/php#
```

Java JRE install (sudo apt install default-jre)
Go to AWS SDK PHP Composer Repository (My Version used here is Version 3.279.2) and choose aws.zip:
https://github.com/aws/aws-sdk-php/releases

Then put the AWS-SDK-PHP somewhere in /var/www/php. In my case, I put the SDK in autoloader folder and unzip.

```
root@DESKTOP-JLEGGJC:/etc/apache2# cd /var/www/php
root@DESKTOP-JLEGGJC:/var/www/php# ls -rlt
total 16
drwxr-xr-x 3 root root 4096 Aug 20 00:08 autoloader
drwxr-xr-x 2 root root 4096 Aug 20 00:20 images
-rwxr-xr-x 1 root root 1372 Aug 20 02:58 style.css
-rw-r--r-- 1 root root 3135 Aug 20 03:03 index.php
```

**Pre-requisite in Windows 10:**
NoSQL Workbench (For local DynamoDB but can also be used in remote Amazon DynamoDB):
https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/workbench.settingup.install.html

**To Run Local DynamoDB:**
```
java -Djava.library.path=./DynamoDBLocal_lib -jar DynamoDBLocal.jar -sharedDb
```

```
ron@DESKTOP-JLEGGJC:/mnt/d/AWSDynamo/dynamodb_local_latest$ java -Djava.library.path=./DynamoDBLocal_lib -jar DynamoDBLocal.jar -sharedDb
Initializing DynamoDB Local with the following configuration:
Port:   8000
InMemory:       false
DbPath: null
SharedDb:       true
shouldDelayTransientStatuses:   false
CorsParams:     *
```

Note for index.php, web files like style.css and image source and AWS-PHP-SDK composer: Do not use local windows drives (Drive C and D) as reference as the directory will not be detected. Copy the files from local windows drives to Linux folders.

**Folders/files:**

```
root@DESKTOP-JLEGGJC:~# cd /var/www/php
root@DESKTOP-JLEGGJC:/var/www/php# ls -rlt
total 16
drwxr-xr-x 3 root root 4096 Aug 20 00:08 autoloader
drwxr-xr-x 2 root root 4096 Aug 20 00:20 images
-rwxr-xr-x 1 root root 1372 Aug 20 02:58 style.css
-rw-r--r-- 1 root root 3135 Aug 20 03:03 index.php
root@DESKTOP-JLEGGJC:/var/www/php#
```

**image: you can save it with your desired filename**



autoloader = AWS-SDK-PHP composer folder
images = image source folder
Edit the file below to set the DocumentRoot directory to /var/www/php instead of /var/www/html

**/etc/apache2/sites-enabled/000-default.conf:**

```
<VirtualHost *:80>
        # The ServerName directive sets the request scheme, hostname and port that
        # the server uses to identify itself. This is used when creating
        # redirection URLs. In the context of virtual hosts, the ServerName
        # specifies what hostname must appear in the request's Host: header to
        # match this virtual host. For the default virtual host (this file) this
        # value is not decisive as it is used as a last resort host regardless.
        # However, you must set it for any further virtual host explicitly.
        #ServerName www.example.com

        ServerAdmin webmaster@localhost
        DocumentRoot /var/www/php
```

Get IP Addresses to access the webpage from WSL2: hostname -I

**Get aws key and secret credentials via NoSQL Workbench**
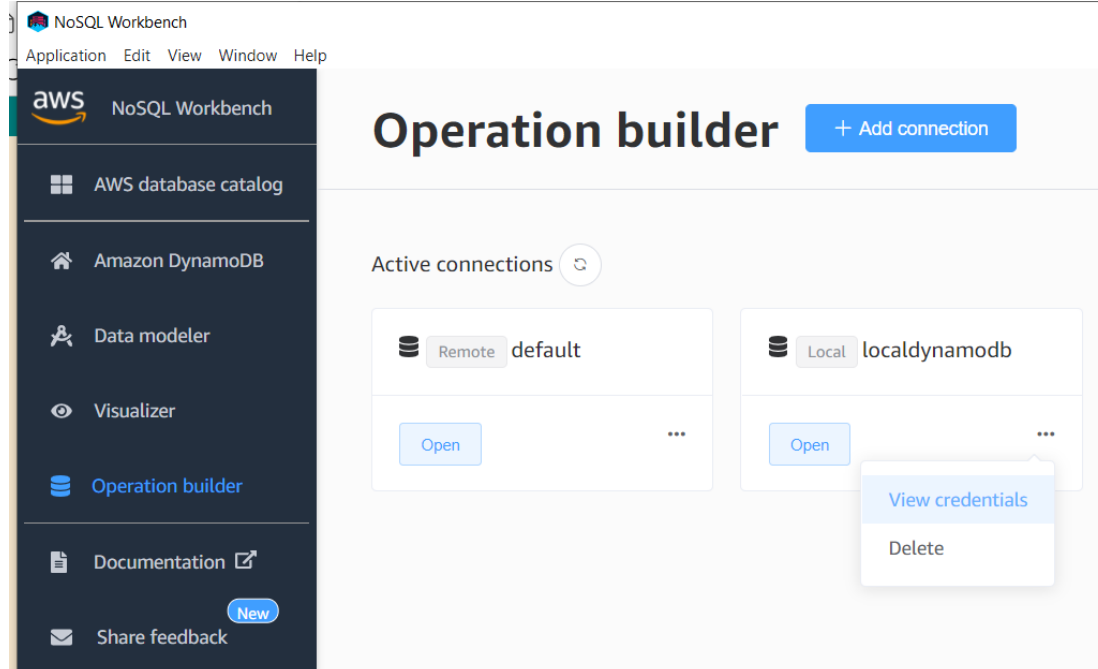


**Sample Random Credentials from NoSQL Workbench local DynamoDB**



**Local DynamoDB Data**

**Webpage final:**



**index.php**
```
<!DOCTYPE html>
<html>
<head>
```

```html
    <link
href="https://fonts.googleapis.com/css2?family=Urbanist:ital,wght@0,100;0,200;0,300;0,400;0,500;0,60
0;0,700;0,800;0,900;1,100;1,200;1,300;1,400;1,500;1,600;1,700;1,800;1,900&display=swap"
    rel="stylesheet">
  <link rel="stylesheet" href="style.css">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/4.7.0/css/font-
awesome.min.css">
</head>
<body>
  <!-- Announcement -->
  <div class="announcement">
    <p>Save 10%! With Promo Code ANYCO</p>
  </div>
  <!-- Header -->
  <div class="header">
    <h1>ANYCO.</h1>
  </div>
  <!-- Main Body -->
  <div class="row">
    <div class="column">
    <img src="../images/main_icecream.jpg" style="width:100%">
    </div>
    <div class="column">
      <div class="cta">
        <p1>DON'T COMPROMISE ON TASTE! TRY OUR BOLD, CLASSIC FLAVORS TODAY.</p1>
      </div>
      <div class="menu">
        <?php
          // Autoloader required - using Composer
          require 'autoloader/aws/aws-autoloader.php';
          use Aws\DynamoDb\DynamoDbClient;
          try {
          // Register the Handler
          $client = DynamoDbClient::factory(array(
          'version' => 'latest',
          'region' => 'us-east-1',
          'endpoint' => 'http://localhost:8000',
          'credentials' => array(
          'key' => < local dynamodb key>,
          'secret' => <local dynamodb secret>)
          ));
          $iterator = $client->getIterator('Scan', array(
            'TableName' => 'Products'
          ));
          echo "<table>
            <tr>
```

```php
                    <th> Flavor </th>
                    <th> Price </th>
                </tr>";
            foreach ($iterator as $item) {
                // Grab the flavor value
                echo
                    "<tr>
                    <td align = center>{$item['ProductFlavor']['S']}</td>
                    <td align = center>{$item['ProductPrice']['S']}</td>
                    </tr>";
            }
            echo "</table>";
            } catch (Exception $e) {
                echo 'Caught exception: ',  $e->getMessage(), "\n";
            }

            ?>
        </div>
      </div>
     </div>
    <!-- Footer -->
    <div class="footer">
       <div class="footer-container1">
          <p2>Contact Us.</p2><br>
          <p2>(555) 555-1212</p2><br>
          <p2>1234 AnyCompany Drive</p2><br>
          <p2>AnyTown, USA, 55555</p2>
       </div>
       <div class="footer-container2">
          <a href="#" class="fa fa-facebook"></a>
          <a href="#" class="fa fa-twitter"></a>
          <a href="#" class="fa fa-instagram"></a>
          <a href="#" class="fa fa-pinterest"></a>
       </div>
    </div>

</body>
</html>
```

**style.css**
```css
@charset "utf-8";

* {
    box-sizing: border-box;
    margin: 0;
    font-family: 'Urbanist', sans-serif;
}
```

```css
body {
  margin: 0;
  font-family: Arial;
  background-color: #fdecd2;
}

.announcement {
  text-align: center;
  padding: 5px;
  background-color: teal;
  color: white;
}
.header {
  text-align: center;
  padding: 18px;
}

.row {
  display: flex;
}

.column {
  flex: 50%;
}

.cta {
  padding-top: 150px;
}

.menu {
  padding: 10px;
  font-size: 20px;
}

ul {
  padding: 10px;
}

.ul1 {
  font-style: italic;
}

p1 {
  font-size: x-large;
}

.footer {
  position: fixed;
```

```css
  left: 0;
  bottom: 0;
  width: 100%;
  background-color: white;
  text-align: center;
}

.footer-container1 {
  flex: 50%;
  justify-content: right;
  text-align: center;
  justify-items: right;
  vertical-align: center;
}

.footer-container2 {
  flex: 50%;
  justify-content: right;
}

.fa {
  padding: 20px;
  font-size: 30px;
  width: 50px;
  height: 50%;
  text-align: center;
  text-decoration: none;
  margin: 5px 2px;
}

.fa:hover {
  opacity: 0.7;
}

.fa-facebook {
background: #3B5998;
color: white;
}

.fa-twitter {
background: #55ACEE;
color: white;
}

.fa-instagram {
  background: #125688;
  color: white;
}
```

```css
.fa-pinterest {
  background: #cb2027;
  color: white;
}
```