AWS Project Building Session Building a Three Tier Application

The 3 Tier Application:

Three-tier architecture is a well-established software application architecture that organizes applications into three logical tiers:

1. The presentation tier, or user interface:

These are the web servers that dispense the web page when they are requested using the web client.

1. The application tier, where data is processed:

Application servers physically or virtually sit betweenDB servers and web servers. App servers are the operating systems supporting an application delivery. OrangeHRM is the full suite of applications for comprehensive human capital management: core HR, time and attendance, candidate recruiting, performance reviews, absence management, etc.

Presentation

Layer(Frontend)

Application

Layer(Backend)

Database

User

1. The data tier, where the data associated with the:

Database software makes data management simpler by enabling users to store data in a structured form and then access it.

# LAMP Stack

* A LAMP stack is a bundle of four different software technologies that are used together to run applications.
* L - The operating system, Linux;
* A - The web server, Apache;
* M - The database server, MySQL; (MariaDB)
* P - The programming language, PHP. PHP (Hypertext Preprocessor) is known as a general-purpose scripting language that can be used to develop dynamic and interactive websites
* previously as Personal Home Page. It is a programming language widely used to build web applications or websites.

Region



Public Subnet -1

Web App

Tier

2

Public Subnet -

Web App Tier

Private Subnet

RDS MariaDB Tier

Availability Zone A

Availability Zone B



# Installation of Apache2 Web Server and PHP

* Installation of Webserver
* apt update
* apt-get install software-properties-common
* add-apt-repository ppa:ondrej/php
* apt update
* apt install php7.1
* apt install php7.1 php7.1-common php7.1-mbstring php7.1-xmlrpc php7.1-soap php7.1-gd php7.1-xml php7.1-intl php7.1-mysql php7.1cli php7.1-mcrypt php7.1-ldap php7.1-zip php7.1-curl

# PHP

• vi /etc/php/7.1/apache2/php.ini

file\_uploads = On allow\_url\_fopen = On memory\_limit = 256M upload\_max\_filesize = 100M date.timezone = America/Chicago

Repo Clone

Clone the repo from the GitHub git clone https://github.com/SHRIDHARMUDASHI/orangehrms.git cd orangehrms mv orangehrm-4.0.zip /var/www apt install unzip unzip orangehrm-4.0.zip mv orangehrm-4.0 orangehrm

Need to change the Apache2 permission chown -R www-data:www-data /var/www/orangehrm/ chmod -R 755 /var/www/orangehrm/ vi /etc/apache2/sites-available/orangehrm.conf

< VirtualHost \* :80>

ServerAdmin admin@example.com

DocumentRoot /var/www/orangehrm

ServerName example.com

ServerAlias www.example.com

< Directory /var/www/orangehrm/ >

Options +FollowSymlinks

AllowOverride All

Require all granted

< /Directory >

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

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

< /VirtualHost >

a2ensite orangehrm.conf a2enmod rewrite systemctl restart apache2.service

https://geekrewind.com/setup-orangehrm-on-ubuntu-16-04-lts-with-apache2mariadb-and-php-7-1-support/