

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:

a. The presentation tier, or user interface:

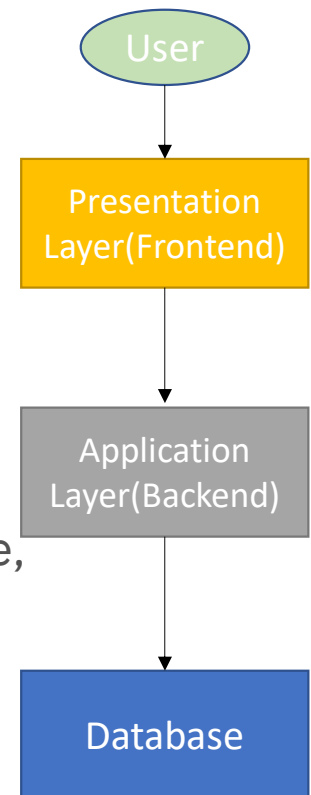
These are the web servers that dispense the web page when they are requested using the web client.

b. The application tier, where data is processed:

Application servers physically or virtually sit between DB 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.

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

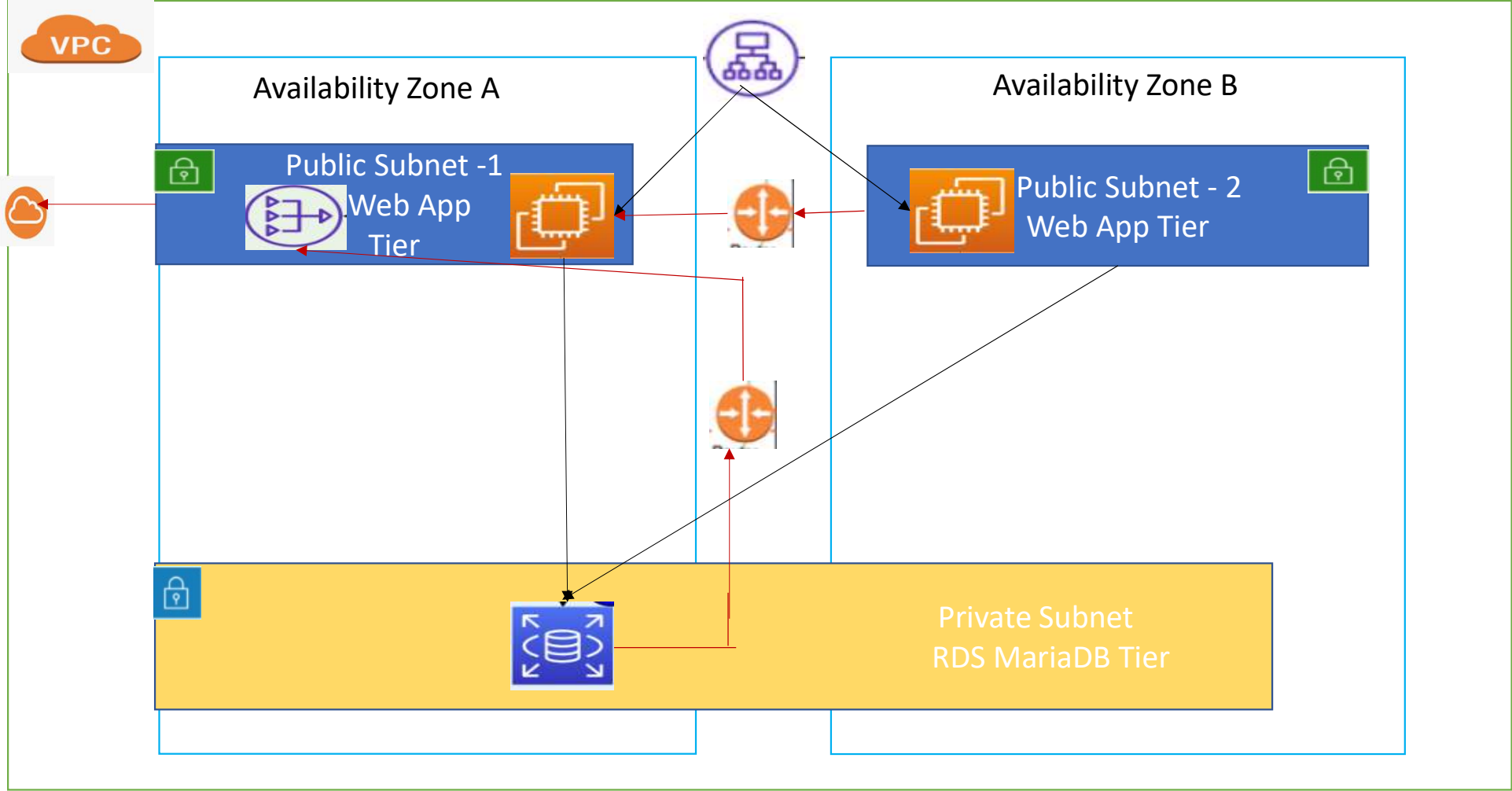
Database software makes data management simpler by enabling users to store data in a structured form and then access it.



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



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 php7.1-cli 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-apache2-mariadb-and-php-7-1-support/>