Deployment Sever Documentation

*Initial Set-Up*

1. Install the following packages:
   1. git 4.6.0+
   2. apache2 2.4.18+
   3. php 7.0.22+
   4. php-amqp
   5. php-mysql
   6. rabbitmq-server 3.5.7+
   7. mysql-server 5.7.20
2. enable the rabbitmq management plugin with the following command

*rabbitmq-plugins enable rabbitmq\_management*

1. Login to rabbitmq management console using the following URL

[http://127.0.0.1:15672](http://127.0.0.1:15672/)

1. Create a new rabbitmq user with the following credentials

username: test

password: test

tags: Admin

1. Create a new Virtual Host with the name “deployHost”
2. give the user we just created “test’’ permission to access the Virtual Host “deployHost”
3. Create 2 exchanges with the following names “logExchange” and “deployExchage”.

Virtual host: deployHost

type: Headers

Durability: Durable

Auto Delete: No

Internal: No

Arguments:

1. Create 2 queues with the followingnames “deployQueue” and “logQueue”. Assign the following attributes

Virtual host: deployHost

Durability: Durable

Auto Delete: No

Arguments:

1. Make sure you bind all of the queues with their appropriate exchanges in the rabbitmq console. Ie. logQueue → logExchange
2. Clone the deployment server repository from the URL below make sure you use the “deploy” branch

[*https://github.com/agar23/IT490.gi*](https://github.com/agar23/IT490.git)*t*

1. the tree structure should be like the one below:

1

├── Ini

│ ├── deploy.ini

│ ├── deploy.php.inc

│ ├── deployServerctl

│ ├── get\_host\_info.inc

│ ├── host.ini

│ ├── logRabbitMQ.ini

│ ├── logserverctl

│ ├── path.inc

│ └── rabbitMQLib.inc

├── logs

│ └── logfile.log

├── logscript.php

├── README.md

└── servers

├── deployServer.php

└── logServer.php

3 directories, 14 files

1. For file specific documentation please see documentation inside each file.
2. Set-up the two servers in the servers folder so they can start up automatically at boot
   1. navigate to the folder below

/etc/systemd/system

* 1. create two files, one for each file under the server’s directory. Follow the syntax below

logServer.php → logServer.Service

* 1. use the lines below as template for the contents of each file. Make sure to make the appropriate changes where marked. Marks are enclosed in <> tags.

[Unit]

Description= <descriptive title for the server>

[Service]

User=<your username for the server>

WorkingDirectory=<where the root directory of this project lives>

ExecStart=<path to the php server ex. logServer.php> start

ExecStop=<path to the ctl file for this specific server. Found under Ini dir > stop

TimeoutSec=30

Restart=on-failure

RestartSec=30

StartLimitInterval=350

StartLimitBurst=10

[Install]

WantedBy=multi-user.target

1. Once you create both files you will need to make sure both the servers in the original servers directory and the files you create are executable
2. now enable the servers to start at boot by running the command below.

sudo systemctl enable <name of the service ex. logServer.service>

1. create a database in mysql called “dbDeploy”, create the following tables with the structure shown below.

Tables:

+-------------------------+

| Tables\_in\_dbDeploy |

+-------------------------+

| currentVersions |

| versions |

+-------------------------+

CurrentVersion Table

+-----------+----------------+-------+-----+-----------+-------+

| Field | Type | Null | Key | Default | Extra |

+-----------+----------------+-------+-----+-----------+-------+

| machine | varchar(255) | YES | | NULL | |

| vNumber | varchar(255) | YES | | NULL | |

+-----------+----------------+------+-------+---------+--------+

Versions table

+------------+----------------+------+-----+-----------+--------+

| Field | Type | Null | Key | Default | Extra |

+------------+----------------+------+-----+-----------+--------+

| machine | varchar(255) | YES | | NULL | |

| vNumber | varchar(255) | YES | | NULL | |

| dep | varchar(255) | YES | | no | |

+------------+----------------+------+-----+-----------+--------+

*Current set-up*

* *The existing deployment server lives at the address below*

*deployServer* – 192.168.43.114

* *The root directory for this project is*

*/local/1*

* *This machine is in-charge of hosting 2 “servers/Listeners” both are found under the normal systemd path. You can check the status of the server by running the command below*

*sudo systemctl status <name of the serer ex. LogServer.service>*

* *This server is also in-charge of housing the different packages/bundle versions for each machine/layer. Those can be found at the directory below*

*/local/0*