

Flask installation:

```
Administrator: Command Prompt
Microsoft Windows [Version 10.0.19042.1706]
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C:\Users\LENOVO>pip install flask
Requirement already satisfied: flask in c:\users\lenovo\appdata\local\packages\pythonsoftwarefoundation.python.3.7_qbz5n2kfra8p0\localcache\local-packages\python37\site-packages (2.2.2)
Requirement already satisfied: Werkzeug>=2.2.2 in c:\users\lenovo\appdata\local\packages\pythonsoftwarefoundation.python.3.7_qbz5n2kfra8p0\localcache\local-packages\python37\site-packages (from flask) (2.2.2)
Requirement already satisfied: click>=8.0 in c:\users\lenovo\appdata\local\packages\pythonsoftwarefoundation.python.3.7_qbz5n2kfra8p0\localcache\local-packages\python37\site-packages (from flask) (8.1.2)
Requirement already satisfied: Jinja2>=3.0 in c:\users\lenovo\appdata\local\packages\pythonsoftwarefoundation.python.3.7_qbz5n2kfra8p0\localcache\local-packages\python37\site-packages (from flask) (3.1.2)
Requirement already satisfied: importlib-metadata>=3.6.0; python_version < "3.10" in c:\users\lenovo\appdata\local\packages\pythonsoftwarefoundation.python.3.7_qbz5n2kfra8p0\localcache\local-packages\python37\site-packages (from flask) (4.12.0)
Requirement already satisfied: itsdangerous>=2.0 in c:\users\lenovo\appdata\local\packages\pythonsoftwarefoundation.python.3.7_qbz5n2kfra8p0\localcache\local-packages\python37\site-packages (from flask) (2.1.2)
Requirement already satisfied: MarkupSafe>=2.1.1 in c:\users\lenovo\appdata\local\packages\pythonsoftwarefoundation.python.3.7_qbz5n2kfra8p0\localcache\local-packages\python37\site-packages (from Werkzeug>=2.2.2->flask) (2.1.1)
Requirement already satisfied: colonamo; platform_system == "Windows" in c:\users\lenovo\appdata\local\packages\pythonsoftwarefoundation.python.3.7_qbz5n2kfra8p0\localcache\local-packages\python37\site-packages (from click>=8.0->flask) (0.4.5)
Requirement already satisfied: zipp>=0.5 in c:\users\lenovo\appdata\local\packages\pythonsoftwarefoundation.python.3.7_qbz5n2kfra8p0\localcache\local-packages\python37\site-packages (from importlib-metadata>=3.6.0; python_version < "3.10"->flask) (3.8.1)
Requirement already satisfied: typing-extensions>=3.6.4; python_version < "3.8" in c:\users\lenovo\appdata\local\packages\pythonsoftwarefoundation.python.3.7_qbz5n2kfra8p0\localcache\local-packages\python37\site-packages (from importlib-metadata>=3.6.0; python_version < "3.10"->flask) (4.3.0)
WARNING: You are using pip version 20.1.1; however, version 22.2.2 is available.
You should consider upgrading via the 'C:\Users\LENOVO\AppData\Local\Microsoft\WindowsApps\PythonSoftwareFoundation.Python.3.7_qbz5n2kfra8p0\python.exe -m pip install --upgrade pip' command.

C:\Users\LENOVO>
```

app.py:

```
from flask import Flask
```

```
app = Flask(__name__)
```

```
@app.route('/')
```

```
def hello():
```

```
    return '<h1>Hello, World!</h1>'
```

CREATING DATABASE:

```
CREATE TABLE IF NOT EXISTS `accounts` (
    `id` int(11) NOT NULL AUTO_INCREMENT,
    `username` varchar(50) NOT NULL,
    `password` varchar(255) NOT NULL,
    `email` varchar(100) NOT NULL,
    PRIMARY KEY (`id`)
) ENGINE=InnoDB AUTO_INCREMENT=2 DEFAULT CHARSET=utf8;
```

```
INSERT INTO `accounts` (`id`, `username`, `password`, `email`) VALUES (1, 'test', 'test', 'test@test.com');
```

Style.css:

```
* {  
    box-sizing: border-box;  
    font-family: -apple-system, BlinkMacSystemFont, "segoe ui", roboto,  
oxygen, ubuntu, cantarell, "fira sans", "droid sans", "helvetica neue", Arial,  
sans-serif;  
    font-size: 16px;  
    -webkit-font-smoothing: antialiased;  
    -moz-osx-font-smoothing: grayscale;  
}  
body {  
    background-color: #435165;  
    margin: 0;  
}  
.login, .register {  
    width: 400px;  
    background-color: #ffffff;  
    box-shadow: 0 0 9px 0 rgba(0, 0, 0, 0.3);  
    margin: 100px auto;  
}  
.login h1, .register h1 {  
    text-align: center;  
    color: #5b6574;  
    font-size: 24px;  
    padding: 20px 0 20px 0;  
    border-bottom: 1px solid #dee0e4;  
}  
.login .links, .register .links {  
    display: flex;  
    padding: 0 15px;  
}  
.login .links a, .register .links a {  
    color: #adb2ba;  
    text-decoration: none;  
    display: inline-flex;  
    padding: 0 10px 10px 10px;  
    font-weight: bold;
```

```

}
.login .links a:hover, .register .links a:hover {
    color: #9da3ac;
}
.login .links a.active, .register .links a.active {
    border-bottom: 3px solid #3274d6;
    color: #3274d6;
}
.login form, .register form {
    display: flex;
    flex-wrap: wrap;
    justify-content: center;
    padding-top: 20px;
}
.login form label, .register form label {
    display: flex;
    justify-content: center;
    align-items: center;
    width: 50px;
    height: 50px;
    background-color: #3274d6;
    color: #ffffff;
}
.login form input[type="password"], .login form input[type="text"], .login
form input[type="email"], .register form input[type="password"], .register
form input[type="text"], .register form input[type="email"] {
    width: 310px;
    height: 50px;
    border: 1px solid #dee0e4;
    margin-bottom: 20px;
    padding: 0 15px;
}
.login form input[type="submit"], .register form input[type="submit"] {
    width: 100%;
    padding: 15px;
    margin-top: 20px;
    background-color: #3274d6;
    border: 0;
    cursor: pointer;
}

```

```
        font-weight: bold;
        color: #ffffff;
        transition: background-color 0.2s;
    }
    .login form input[type="submit"]:hover, .register form
    input[type="submit"]:hover {
        background-color: #2868c7;
        transition: background-color 0.2s;
    }
    .navtop {
        background-color: #2f3947;
        height: 60px;
        width: 100%;
        border: 0;
    }
    .navtop div {
        display: flex;
        margin: 0 auto;
        width: 1000px;
        height: 100%;
    }
    .navtop div h1, .navtop div a {
        display: inline-flex;
        align-items: center;
    }
    .navtop div h1 {
        flex: 1;
        font-size: 24px;
        padding: 0;
        margin: 0;
        color: #eaebed;
        font-weight: normal;
    }
    .navtop div a {
        padding: 0 20px;
        text-decoration: none;
        color: #c1c4c8;
        font-weight: bold;
```

```
}
.navtop div a i {
    padding: 2px 8px 0 0;
}
.navtop div a: hover {
    color: #eaebed;
}
body.loggedin {
    background-color: #f3f4f7;
}
.content {
    width: 1000px;
    margin: 0 auto;
}
.content h2 {
    margin: 0;
    padding: 25px 0;
    font-size: 22px;
    border-bottom: 1px solid #e0e0e3;
    color: #4a536e;
}
.content > p, .content > div {
    box-shadow: 0 0 5px 0 rgba(0, 0, 0, 0.1);
    margin: 25px 0;
    padding: 25px;
    background-color: #fff;
}
.content > p table td, .content > div table td {
    padding: 5px;
}
.content > p table td:first-child, .content > div table td:first-child {
    font-weight: bold;
    color: #4a536e;
    padding-right: 15px;
}
.content > div p {
    padding: 5px;
    margin: 0 0 10px 0;
```

```
}
```

CREATING THE LOGGING SYSTEM:

```
from flask import Flask, render_template, request, redirect, url_for, session
```

```
from flask_mysqlldb import MySQL
```

```
import MySQLdb.cursors
```

```
import re
```

AA AFTER:

```
app = Flask(__name__)
```

```
# Change this to your secret key (can be anything, it's for extra protection)
```

```
app.secret_key = 'your secret key'
```

```
# Enter your database connection details below
```

```
app.config['MYSQL_HOST'] = 'localhost'
```

```
app.config['MYSQL_USER'] = 'root'
```

```
app.config['MYSQL_PASSWORD'] = ''
```

```
app.config['MYSQL_DB'] = 'pythonlogin'
```

```
# Intialize MySQL
```

```
mysql = MySQL(app)
```

ADD AFTER:

```
# http://localhost:5000/pythonlogin/ - the following will be our login page, which will use both GET and POST requests
```

```
@app.route('/pythonlogin/', methods=['GET', 'POST'])
```

```
def login():
```

```
    # Output message if something goes wrong...
```

```
    msg = ''
```

```
    return render_template('index.html', msg='')
```

CREATING THE TEMPLATE:

```
<!DOCTYPE html>
```

```
<html>
```

```
    <head>
```

```

        <meta charset="utf-8">
        <title>Login</title>
        <link rel="stylesheet" href="{{ url_for('static',
filename='style.css') }}">
        <link rel="stylesheet"
href="https://use.fontawesome.com/releases/v5.7.1/css/all.css">
    </head>
    <body>
        <div class="login">
            <h1>Login</h1>
            <div class="links">
                <a href="{{ url_for('login') }}"
class="active">Login</a>
                <a href="#">Register</a>
            </div>
            <form action="{{ url_for('login') }}" method="post">
                <label for="username">
                    <i class="fas fa-user"></i>
                </label>
                <input type="text" name="username"
placeholder="Username" id="username" required>
                <label for="password">
                    <i class="fas fa-lock"></i>
                </label>
                <input type="password" name="password"
placeholder="Password" id="password" required>
                <div class="msg">{{ msg }}</div>
                <input type="submit" value="Login">
            </form>
        </div>
    </body>
</html>

```

OUTPUT:

Login

Login

Register



Username



Password

Login