Testing_1

March 23, 2025

```python
import requests
import json

# The URL of the server
BASE_URL = "http://pase.pythonanywhere.com"
```

```python
url = f"{BASE_URL}/generate-key"
response = requests.post(url, json={"key_type": "AES", "key_size": 256})
print(response.json())
```

```
{'key_id': '1', 'key_value': 'YdYEwKN3/iFLRO/srM6o/F0qliftd/TP7b2113eB2Ak='}
```

```python
url = f"{BASE_URL}/encrypt"
data = {"key_id": "1", "plaintext": "Now, if you two don't mind, I'm going to
 ⤷bed before either of you come up with another clever idea to get us killed
 ⤷or worse... expelled!", "algorithm": "AES"}

response = requests.post(url, json=data)
print(response.json())
```

{'ciphertext': 'ZLalhBZ29AvmD2SCADdX46qEk/tte852nvXssqCyxCHqG3Jck443lfT9ROJH9dqt
p1AOTTH5x09VBB0X+toliyNorwR9z6q5vvZnXtuk3rgupDnes12Z6qqQI3GRu37yLlpx+x0ORMFVEyQv
EOW4Iipuq74g+lAEYFTyCpQVG7GO6g4dOWusU+noVArZp3yjZ1+uIlb/alBP7YKEKiN4mQ=='}

```python
url = f"{BASE_URL}/decrypt"
data = {"key_id": "1", "ciphertext": "ZLalhBZ29AvmD2SCADdX46qEk/
 ⤷tte852nvXssqCyxCHqG3Jck443lfT9ROJH9dqtp1AOTTH5x09VBB0X+toliyNorwR9z6q5vvZnXtuk3rgupDnes12Z6
 ⤷alBP7YKEKiN4mQ==", "algorithm": "AES"}

response = requests.post(url, json=data)
print(response.json())
```

```
{'plaintext': "Now, if you two don't mind, I'm going to bed before either of you
come up with another clever idea to get us killed or worse… expelled!"}
```

```python
url = f"{BASE_URL}/generate-hash"
data = {"data": "You are a wizard, Harry!", "algorithm": "SHA-256"}

response = requests.post(url, json=data)
```

```
print(response.json())
```

{'algorithm': 'SHA-256', 'hash_value':
'JNRHqdLVFruA2v1EW0aDuy9MUgWX0CHUbGzr0gu8N20='}

```
url = f"{BASE_URL}/verify-hash"
data = {"data": "You are a wizard, Harry!", "hash_value":␣
 ↪"JNRHqdLVFruA2v1EW0aDuy9MUgWX0CHUbGzr0gu8N20=", "algorithm": "SHA-256"}

response = requests.post(url, json=data)
print(response.json())
```

{'hash_validity': True, 'message': 'Hash matches the data.'}

```
url = f"{BASE_URL}/verify-hash"
data = {"data": "Good morning, Harry!", "hash_value":␣
 ↪"JNRHqdLVFruA2v1EW0aDuy9MUgWX0CHUbGzr0gu8N20=", "algorithm": "SHA-256"}

response = requests.post(url, json=data)
print(response.json())
```

{'hash_validity': False, 'message': 'Hash does not match the data.'}