

LINK TO WEB API RUNNING AS A CLOUD FUNCTION

https://us-central1-nifty-matrix-382617.cloudfunctions.net/hello_http

1. Register Voter

POST http://127.0.0.1:5000/ New Session POST https://us-central1-nifty-matrix-382617.cloudfunctions.net/hello_http/voter

Save

POST https://us-central1-nifty-matrix-382617.cloudfunctions.net/hello_http/voter Send

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

none form-data x-www-form-urlencoded raw binary GraphQL JSON Beautify

```
1 {
2   "ID": "55552025",
3   "Major": "Computer Engineering",
4   "Name": "Selom Caleb",
5   "Year_Group": "2025"
6 }
```

Body Cookies Headers (7) Test Results 200 OK 1393 ms 448 B Save as Example

Pretty Raw Preview Visualize JSON

```
1 {
2   "Message": "Voter registered successfully"
3 }
```

43152024-Lab5 Cloud Firestore

More in Google Cloud

Home > Voters > 55552025

nifty-matrix-382617	Voters	55552025
+ Start collection	+ Add document	+ Start collection
Elections	12342025	+ Add field
Voters >	22222025	ID: "55552025"
	43152024	Major: "Computer Engineering"
	55552025 >	Name: "Selom Caleb"
		Year_Group: "2025"

1. Create Election

POST http://127.0.0.1:5000/ New Session POST https://us-central1-nifty-matrix-382617.cloudfunctions.net/hello_http/election

Save

POST https://us-central1-nifty-matrix-382617.cloudfunctions.net/hello_http/election Send

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

none form-data x-www-form-urlencoded raw binary GraphQL JSON Beautify

```
12 {
13   "Candidate_ID": "3",
14   "Name": "Angel Captan",
15   "Position": "Speaker of Parliament",
16   "Year_Group": "2022",
17   "Major": "Technology",
18   "Vote_Count": 5
19 }
20 ]
21 }
22 }
```

Body Cookies Headers (7) Test Results 200 OK 948 ms 448 B Save as Example

Pretty Raw Preview Visualize JSON

```
1 {
2   "Message": "Election created successfully"
3 }
```

43152024-Lab5 Cloud Firestore

nifty-matrix-382617 Elections 002

+ Start collection + Add document + Start collection

Elections Voters 001 002

+ Add field

0

Candidate_ID: "3"
Major: "Chemistry"
Name: "Daryl Mansu"
Position: "MP"
Vote_Count: 8
Year_Group: "2024"

1

Candidate_ID: "3"
Major: "Technology"
Name: "Angel Captan"
Position: "Speaker of Parliament"
Vote_Count: 5

Database location: nam5

2. Get Voter Details

POST http://127.0.0.1:5000/\n

New Session

GET https://us-central1-nift

+ ...

No Environment

Save

https://us-central1-nifty-matrix-382617.cloudfunctions.net/hello_http/voter?ID=55552025

Send

Params

Authorization

Headers (6)

Body

Pre-request Script

Tests

Settings

Cookies

Query Params

	Key	Value	Description	...	Bulk Edit
<input checked="" type="checkbox"/>	ID	55552025			
	Key	Value	Description		

Body

Cookies

Headers (7)

Test Results

200 OK 1200 ms 494 B

Save as Example

...

Pretty

Raw

Preview

Visualize

JSON

...

1

2

3

4

5

6

"ID": "55552025",

"Major": "Computer Engineering",

"Name": "Selom Caleb",

"Year_Group": "2025"

43152024-Lab5

Cloud Firestore

More in Google Cloud

> Voters > 55552025

nifty-matrix-382617

Voters

55552025

+ Start collection

+ Add document

+ Start collection

+ Add field

Elections

12342025

22222025

43152024

Voters

55552025

ID: "55552025"

Major: "Computer Engineering"

Name: "Selom Caleb"

Year_Group: "2025"

3. Get Election Details

The image displays two screenshots related to a REST API and its data storage.

Top Screenshot: REST Client

The REST client shows a GET request to `https://us-central1-nifty-matrix-382617.cloudfunctions.net/hello_http/election?Election_ID=002`. The response is a JSON object with the following structure:

```
1 {
2   "Candidates": [
3     {
4       "Candidate_ID": "3",
5       "Major": "Chemistry",
6       "Name": "Daryl Mansu",
7       "Position": "MP",
8       "Vote_Count": 8,
9       "Year_Group": "2024"
10    },
11    {
12      "Candidate_ID": "3",
13      "Major": "Technology",
14      "Name": "Angel Captan",
15      "Position": "Speaker of Parliament",
16      "Vote_Count": 5,
17      "Year_Group": "2024"
18    }
19  ]
20 }
```

Bottom Screenshot: Google Cloud Firestore Console

The Firestore console shows the database structure for the `Elections` collection. The `002` document is expanded, showing the `Candidates` array with two entries:

- 0**:
 - Candidate_ID: "3"
 - Major: "Chemistry"
 - Name: "Daryl Mansu"
 - Position: "MP"
 - Vote_Count: 8
 - Year_Group: "2024"
- 1**:
 - Candidate_ID: "3"
 - Major: "Technology"

4. Delete Voter

The screenshot shows a REST client interface with a DELETE request configured. The URL is `https://us-central1-nifty-matrix-382617.cloudfunctions.net/hello_http/voter?ID=55552025`. The request is set to "DELETE" and the body is empty, with a message stating "This request does not have a body". The response status is 200 OK, with a response time of 1746 ms and a body size of 325 B. The response body is displayed in JSON format: `{"Message": "Voter deleted successfully"}`.

POST `http://127.0.0.1:5000/` New Session DEL `https://us-central1-nift` + ... No Environment

`https://us-central1-nifty-matrix-382617.cloudfunctions.net/hello_http/voter?ID=55552025` Save

DELETE `https://us-central1-nifty-matrix-382617.cloudfunctions.net/hello_http/voter?ID=55552025` Send

Params Authorization Headers (6) Body Pre-request Script Tests Settings Cookies

none form-data x-www-form-urlencoded raw binary GraphQL

This request does not have a body

Body Cookies Headers (7) Test Results 200 OK 1746 ms 325 B Save as Example

Pretty Raw Preview Visualize JSON

```
1 {
2   "Message": "Voter deleted successfully"
3 }
```

The screenshot shows the Google Cloud Firestore console. The breadcrumb navigation is `43152024-Lab5 > Cloud Firestore > Voters > 55552025`. The left sidebar shows the collection hierarchy: `nifty-matrix-382617` > `Elections` > `Voters`. The main panel shows the `Voters` collection with three documents: `12342025`, `22222025`, and `43152024`. The right panel shows the details for the document `55552025`, which is currently empty, with a message stating "This document does not exist, it will not appear in queries or snapshots".

43152024-Lab5 Cloud Firestore More in Google Cloud

> Voters > 55552025

nifty-matrix-382617	Voters	55552025
+ Start collection	+ Add document	+ Start collection
Elections	12342025	+ Add field
Voters >	22222025	
	43152024	

This document does not exist, it will not appear in queries or snapshots [Learn more](#)

5. Delete election

The screenshot shows a REST client interface with a DELETE request to `https://us-central1-nifty-matrix-382617.cloudfunctions.net/hello_http/election/?Election_ID=002`. The request body is a JSON object:

```
1 {
2   "ID": "12342028",
3   "Name": "Sena Vuvor",
4   "Year_Group": "2028",
5   "Major": "MIS"
6 }
```

The response status is 200 OK, 807 ms, 448 B. The response body is a JSON object:

```
1 {
2   "Message": "Election deleted successfully"
3 }
```

The screenshot shows the Google Cloud Firestore console for the `43152024-Lab5` project. The `Elections` collection is selected, showing a list of documents. The document `001` is expanded, showing the following fields:

- `Candidate_ID`: "1"
- `Major`: "French"
- `Name`: "Oheneba Dade"
- `Position`: "ASC President"
- `Vote_Count`: 4
- `Year_Group`: "2024"

The `Candidates` collection is also expanded, showing a list of documents. The document `1` is expanded, showing the following fields:

- `Candidate_ID`: "2"
- `Major`: "Dance"

6. Update voter details

PUT https://us-central1-nift ... New Session DEL http://127.0.0.1:5000/el ... No Environment

https://us-central1-nifty-matrix-382617.cloudfunctions.net/hello_http/voter/?ID=12342028

PUT https://us-central1-nifty-matrix-382617.cloudfunctions.net/hello_http/voter/?ID=12342028 Send

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

none form-data x-www-form-urlencoded raw binary GraphQL JSON Beautify

```
1 {
2   "ID": "12342028",
3   "Name": "Sena Vuvor",
4   "Year_Group": "2028",
5   "Major": "MIS"
6 }
```

Body Cookies Headers (7) Test Results 409 Conflict 374 ms 459 B Save as Example

Pretty Raw Preview Visualize JSON

```
1 {
2   "Message": "Voter records updated successfully"
3 }
```

43152024-Lab5 Cloud Firestore

Home > Voters > 12342028 More in Google Cloud

nifty-matrix-382617	Voters	12342028
+ Start collection	+ Add document	+ Start collection
Elections	12342025	+ Add field
Voters >	12342028 >	ID: "12342028"
	22222025	Major: "MIS"
	43152024	Name: "Sena Vuvor"
		Year_Group: "2028"

7. Vote in an election

PATCH https://us-central1-nifty-matrix-382617.cloudfunctions.net/hello_http/001/1

Save

Send

Params Authorization Headers (7) **Body** Pre-request Script Tests Settings Cookies

none form-data x-www-form-urlencoded raw binary GraphQL

This request does not have a body

Body Cookies Headers (7) Test Results 200 OK 426 ms 473 B Save as Example

Pretty Raw Preview Visualize JSON

```
1
2 "Message": "Vote for candidate 1 in election 001 has been counted."
3
```

43152024-Lab5 Cloud Firestore

nifty-matrix-382617 Elections 001

+ Start collection + Add document + Start collection

Elections > 001 > + Add field

Voters

Candidates

- 0
 - Candidate_ID: "1"
 - Major: "French"
 - Name: "Oheneba Dade"
 - Position: "ASC President"
 - Vote_Count: 5
 - Year Group: "2024"
- 1
 - Candidate_ID: "2"
 - Major: "Dance"
 - Name: "Laura Larbi"
 - Position: "ASC President"

Database location: nam5

Link to a publicly accessible version control containing your code (Use Ashesi's organizational GitHub):

https://github.com/Ashesi-Org/43152024_Lab5/upload