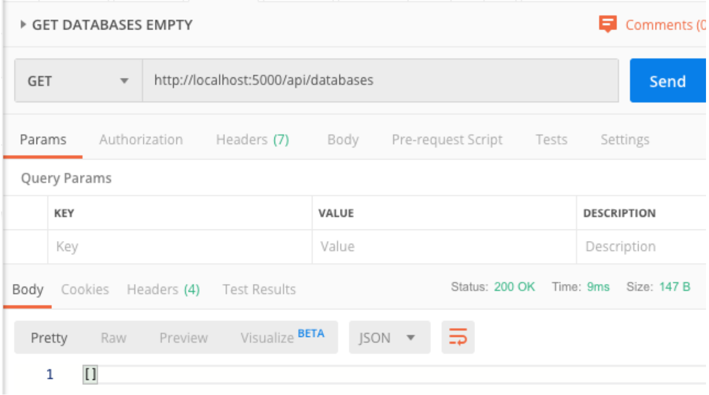
Name : Geraldi Dzakwan
UNI : gd2551

API Test Result

1. Route: GET /api/databases
   Explanation: Since I use _db_tables cache from data_table_adaptor, then at the first call, this route should return an empty list (no databases are accessed already).



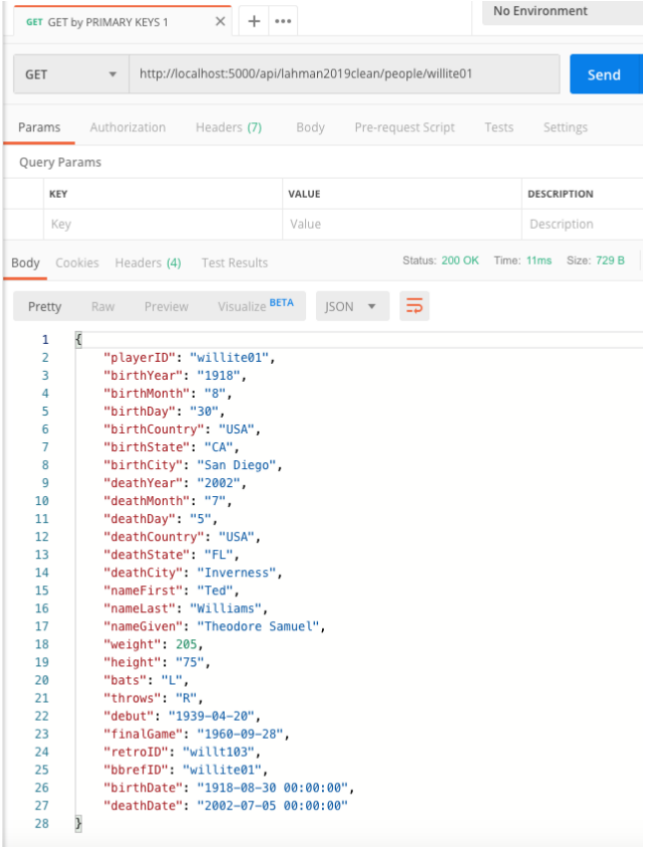
GET http://localhost:5000/api/databases

Status: 200 OK Time: 9ms Size: 147 B

JSON

```
[]
```

2. Route: GET /api/lahman2019clean/people/aaronto01



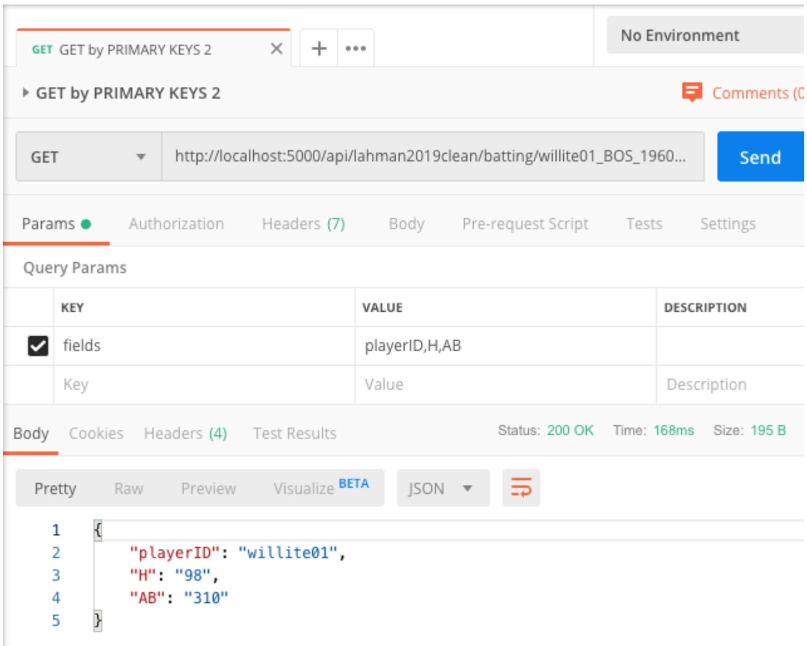
GET http://localhost:5000/api/lahman2019clean/people/willite01

Status: 200 OK Time: 11ms Size: 729 B

JSON

```
{
    "playerID": "willite01",
    "birthYear": "1918",
    "birthMonth": "8",
    "birthDay": "30",
    "birthCountry": "USA",
    "birthState": "CA",
    "birthCity": "San Diego",
    "deathYear": "2002",
    "deathMonth": "7",
    "deathDay": "5",
    "deathCountry": "USA",
    "deathState": "FL",
    "deathCity": "Inverness",
    "nameFirst": "Ted",
    "nameLast": "Williams",
    "nameGiven": "Theodore Samuel",
    "weight": 205,
    "height": "75",
    "bats": "L",
    "throws": "R",
    "debut": "1939-04-20",
    "finalGame": "1960-09-28",
    "retroID": "willt103",
    "bbrefID": "willite01",
    "birthDate": "1918-08-30 00:00:00",
    "deathDate": "2002-07-05 00:00:00"
}
```

3. Route: GET /api/lahman2019clean/batting/willite01_BOS_1960_1?fields=playerID,H,AB



GET by PRIMARY KEYS 2

GET http://localhost:5000/api/lahman2019clean/batting/willite01_BOS_1960...

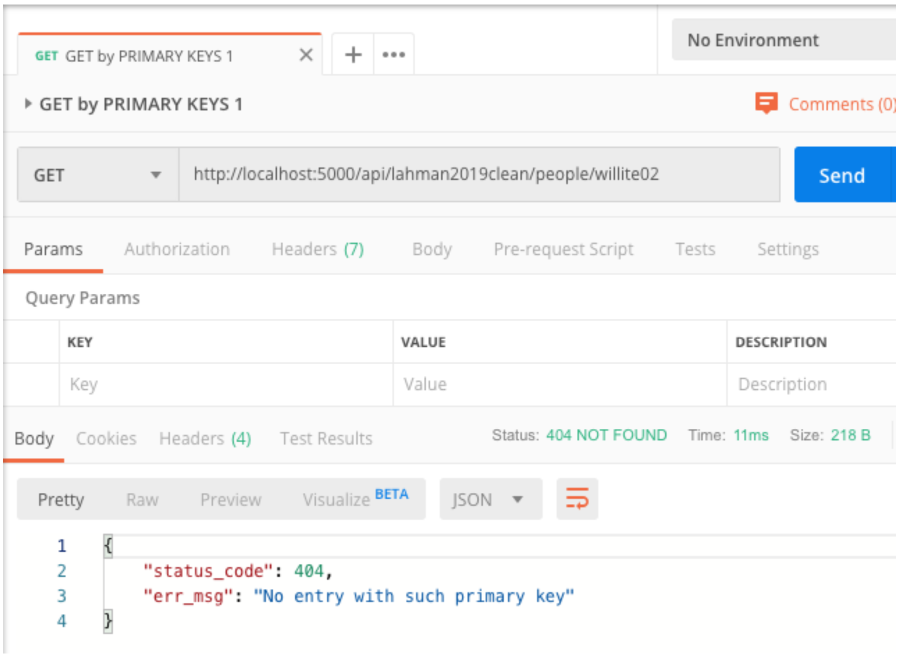
Query Params

	KEY	VALUE	DESCRIPTION
☑	fields	playerID,H,AB	
	Key	Value	Description

Status: 200 OK Time: 168ms Size: 195 B

```
{
    "playerID": "willite01",
    "H": "98",
    "AB": "310"
}
```

4. Route: GET /api/lahman2019clean/people/willite02
Explanation: When no entry is found, GET by primary key will return 404 NOT FOUND.



GET by PRIMARY KEYS 1

GET http://localhost:5000/api/lahman2019clean/people/willite02

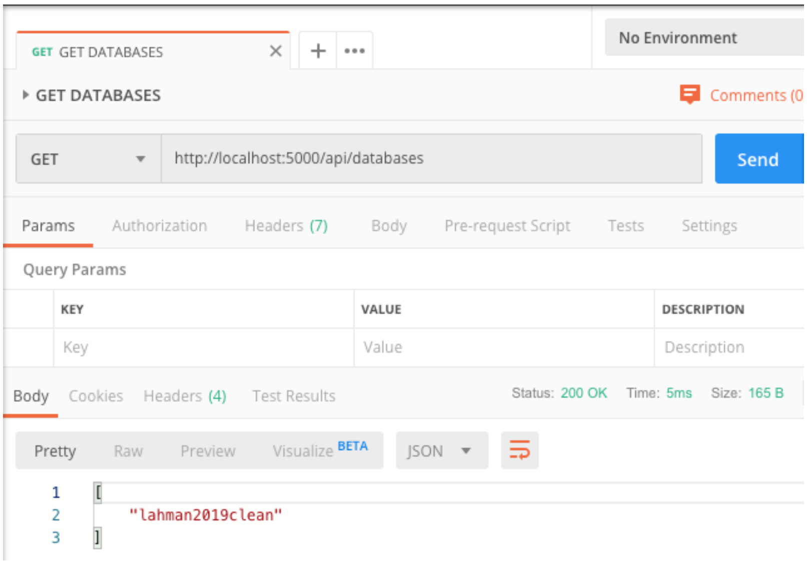
Query Params

	KEY	VALUE	DESCRIPTION
	Key	Value	Description

Status: 404 NOT FOUND Time: 11ms Size: 218 B

```
{
    "status_code": 404,
    "err_msg": "No entry with such primary key"
}
```

5. Route: GET /api/databases
   Explanation: Now, in our cache, we have lahman2019clean database because we have accessed it previously. So, the route should return a list with one element.



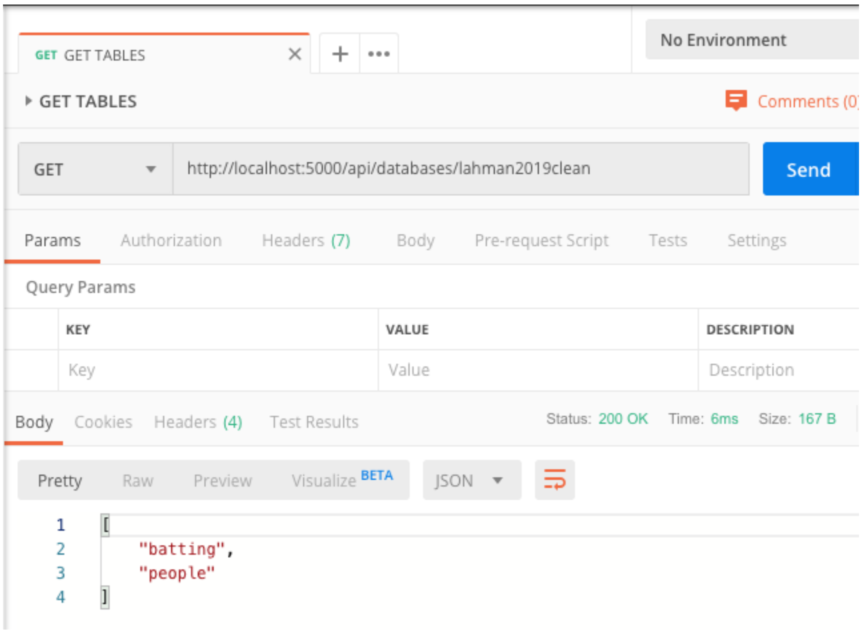
GET http://localhost:5000/api/databases

KEY	VALUE	DESCRIPTION
Key	Value	Description

Status: 200 OK Time: 5ms Size: 165 B

```
[
    "lahman2019clean"
]
```

6. Route: GET /api/databases/lahman2019clean
   Explanation: We also have accessed People and Batting tables, so the route should return a list with two elements.



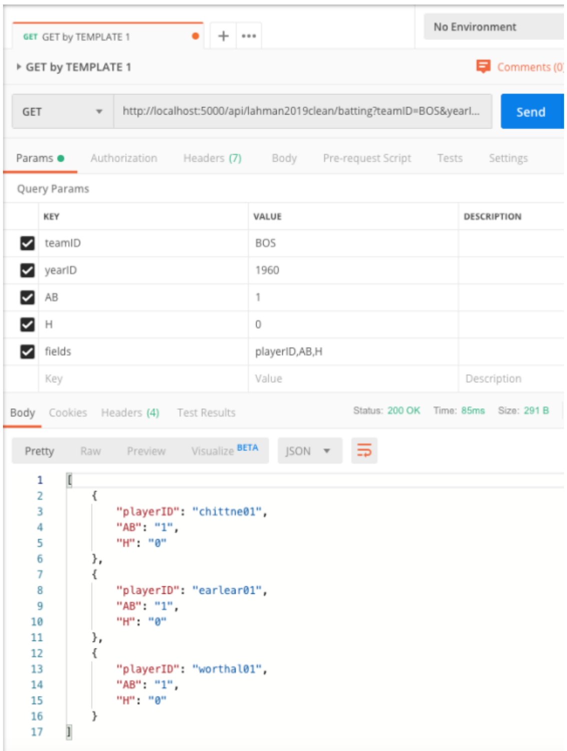
GET http://localhost:5000/api/databases/lahman2019clean

KEY	VALUE	DESCRIPTION
Key	Value	Description

Status: 200 OK Time: 6ms Size: 167 B

```
[
    "batting",
    "people"
]
```

7. Route: GET /batting?teamID=BOS&yearID=1960&AB=1&H=0&fields=playerID,AB,H



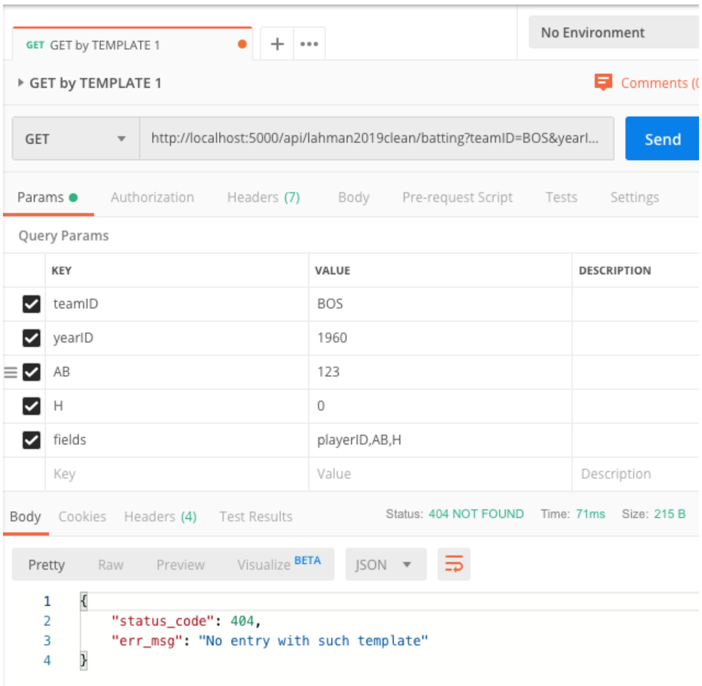
GET http://localhost:5000/api/lahman2019clean/batting?teamID=BOS&yearI...

	KEY	VALUE	DESCRIPTION
☑	teamID	BOS	
☑	yearID	1960	
☑	AB	1	
☑	H	0	
☑	fields	playerID,AB,H	
	Key	Value	Description

Status: 200 OK Time: 85ms Size: 291 B

```
[
    {
        "playerID": "chittne01",
        "AB": "1",
        "H": "0"
    },
    {
        "playerID": "earlear01",
        "AB": "1",
        "H": "0"
    },
    {
        "playerID": "worthal01",
        "AB": "1",
        "H": "0"
    }
]
```

8. Route:
GET /batting?teamID=BOS&yearID=1960&AB=123&H=0&fields=playerID,AB,H
Explanation: When no entry is found, GET by template will return 404 NOT FOUND.



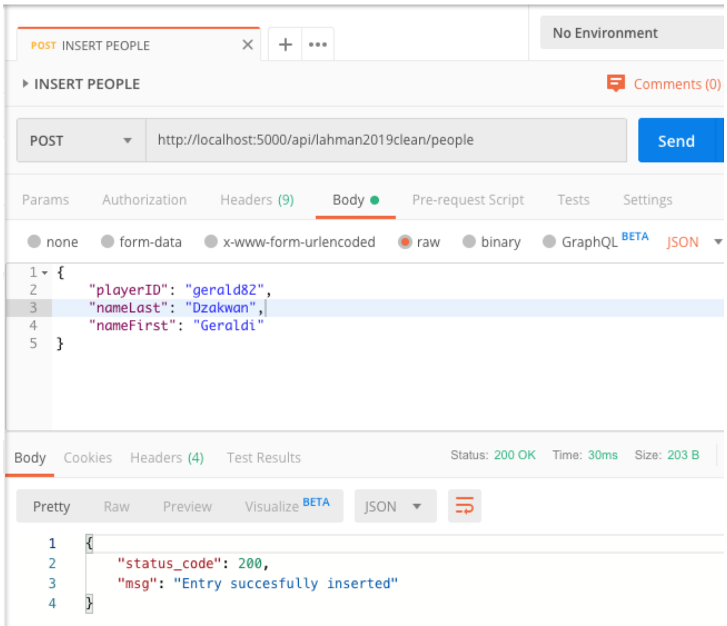
GET http://localhost:5000/api/lahman2019clean/batting?teamID=BOS&yearI...

	KEY	VALUE	DESCRIPTION
☑	teamID	BOS	
☑	yearID	1960	
☑	AB	123	
☑	H	0	
☑	fields	playerID,AB,H	
	Key	Value	Description

Status: 404 NOT FOUND Time: 71ms Size: 215 B

```
{
    "status_code": 404,
    "err_msg": "No entry with such template"
}
```

9. Route: POST /api/lahman2019clean/people
Body: { “playerID”: “gerald82”, “nameLast”: “Dzakwan”, “nameFirst”: “Geraldi”}



POST http://localhost:5000/api/lahman2019clean/people

Body: raw, JSON

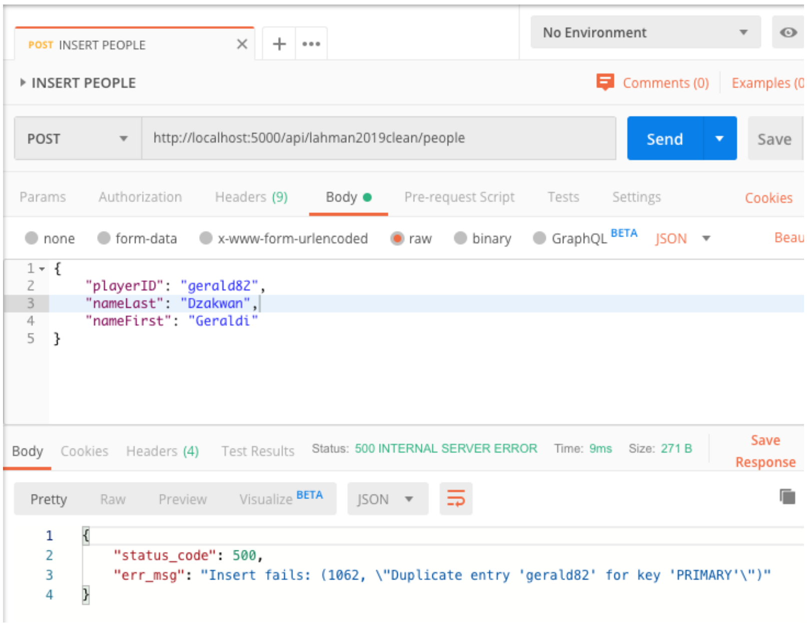
```
{
    "playerID": "gerald82",
    "nameLast": "Dzakwan",
    "nameFirst": "Geraldi"
}
```

Status: 200 OK Time: 30ms Size: 203 B

Pretty, JSON

```
{
    "status_code": 200,
    "msg": "Entry succesfully inserted"
}
```

10. Route: POST /api/lahman2019clean/people
Body: { “playerID”: “gerald82”, “nameLast”: “Dzakwan”, “nameFirst”: “Geraldi”}
Explanation: When trying to insert a record in which the primary key already exists (we already insert the same record previously), 500 error code will be returned.



POST http://localhost:5000/api/lahman2019clean/people

Body: raw, JSON

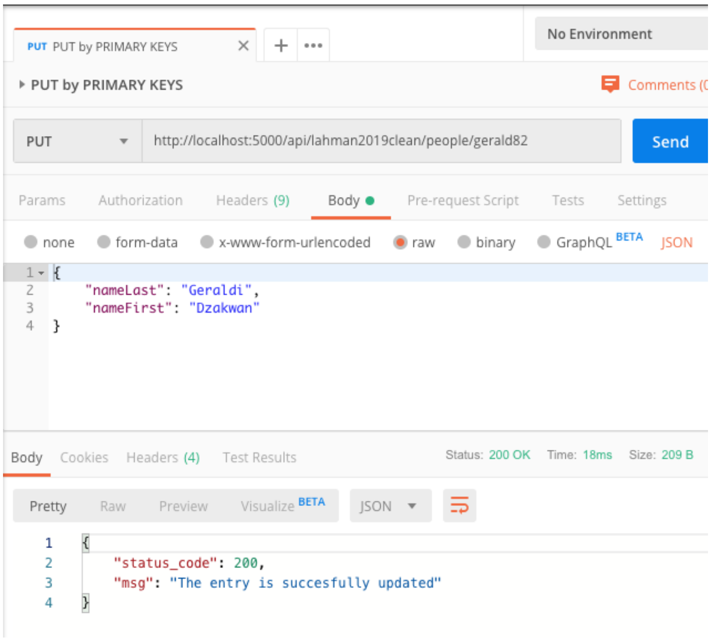
```
{
    "playerID": "gerald82",
    "nameLast": "Dzakwan",
    "nameFirst": "Geraldi"
}
```

Status: 500 INTERNAL SERVER ERROR Time: 9ms Size: 271 B

Pretty, JSON

```
{
    "status_code": 500,
    "err_msg": "Insert fails: (1062, \"Duplicate entry 'gerald82' for key 'PRIMARY'\")"
}
```

11. Route: PUT /api/lahman2019clean/people
    Body: { “playerID”: “gerald82”, “nameLast”: “Geraldi”, “nameFirst”: “Dzakwan”}
    Explanation: Switch the first and the last name of the previously inserted record at step 9



PUT http://localhost:5000/api/lahman2019clean/people/gerald82

Body: ● raw JSON

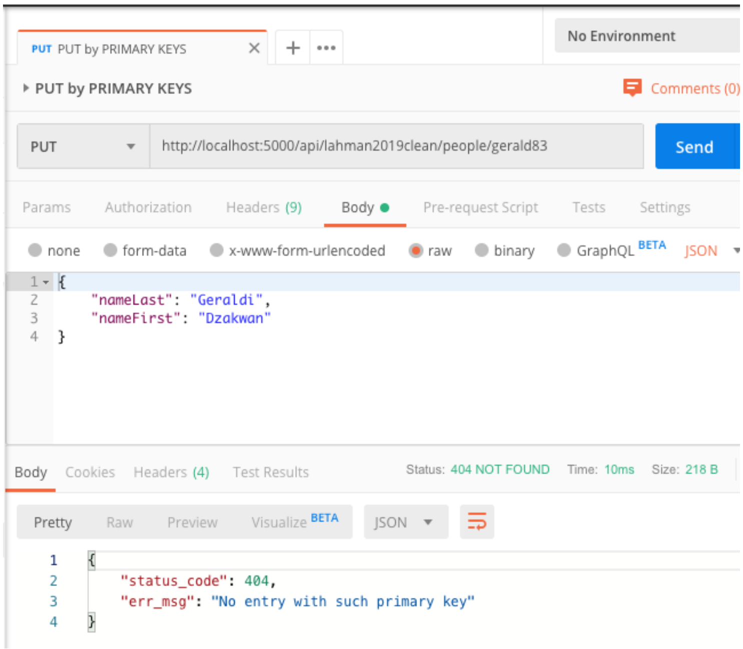
```
{
    "nameLast": "Geraldi",
    "nameFirst": "Dzakwan"
}
```

Status: 200 OK Time: 18ms Size: 209 B

Body: Pretty JSON

```
{
    "status_code": 200,
    "msg": "The entry is succesfully updated"
}
```

12. Route: PUT /api/lahman2019clean/people
    Body: { “playerID”: “gerald83”, “nameLast”: “Geraldi”, “nameFirst”: “Dzakwan”}
    Explanation: When no entry to update is found, the route will return 404 NOT FOUND.



PUT http://localhost:5000/api/lahman2019clean/people/gerald83

Body: ● raw JSON

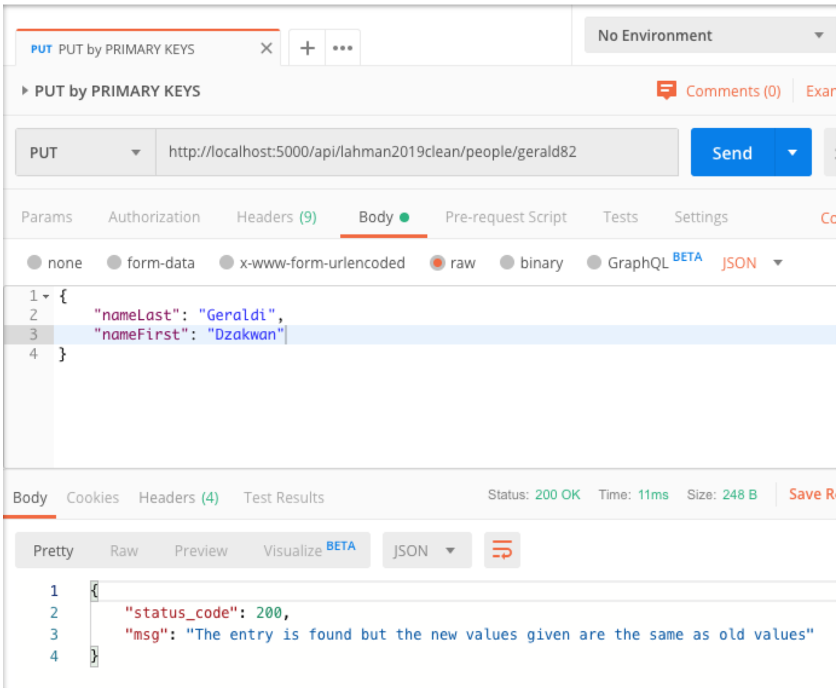
```
{
    "nameLast": "Geraldi",
    "nameFirst": "Dzakwan"
}
```

Status: 404 NOT FOUND Time: 10ms Size: 218 B

Body: Pretty JSON

```
{
    "status_code": 404,
    "err_msg": "No entry with such primary key"
}
```

13. Route: PUT /api/lahman2019clean/people
Body: { “playerID”: “gerald82”, “nameLast”: “Geraldi”, “nameFirst”: “Dzakwan”}
Explanation: When we want to update an entry but the new values don’t change anything, the route will still return status code 200, but with a different message.



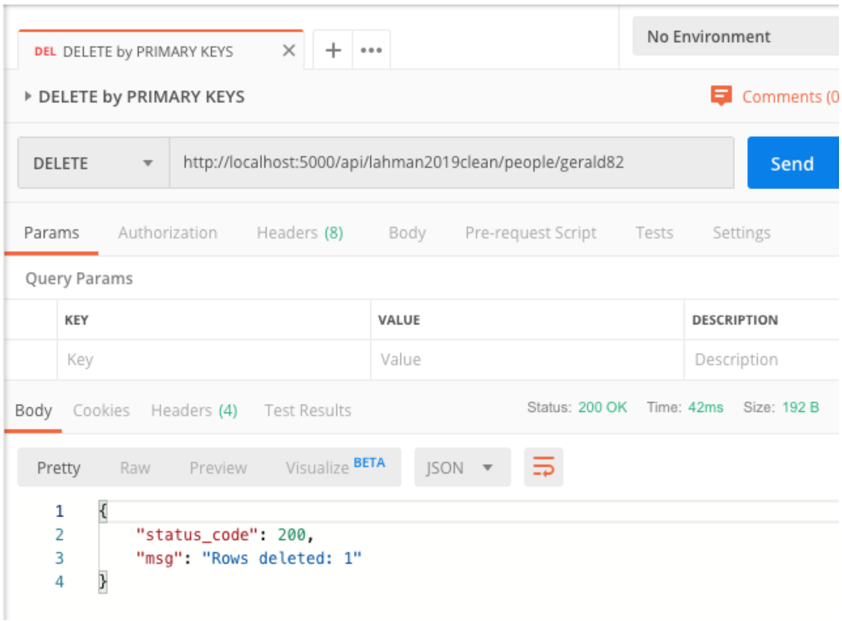
PUT http://localhost:5000/api/lahman2019clean/people/gerald82

```
{
    "nameLast": "Geraldi",
    "nameFirst": "Dzakwan"
}
```

Status: 200 OK Time: 11ms Size: 248 B

```
{
    "status_code": 200,
    "msg": "The entry is found but the new values given are the same as old values"
}
```

14. Route: DELETE /api/lahman2019clean/people/gerald82 ->
Response: Rows deleted: 1



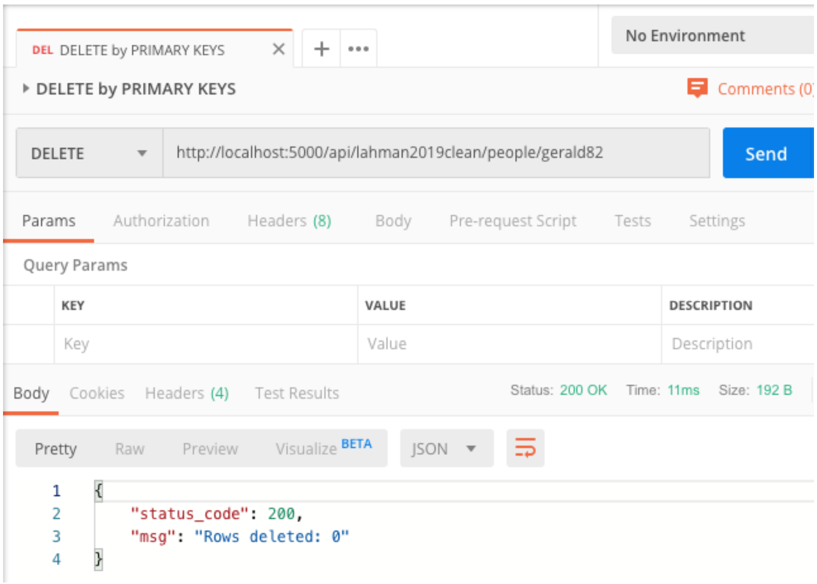
DELETE http://localhost:5000/api/lahman2019clean/people/gerald82

KEY	VALUE	DESCRIPTION
Key	Value	Description

Status: 200 OK Time: 42ms Size: 192 B

```
{
    "status_code": 200,
    "msg": "Rows deleted: 1"
}
```

15. Route: DELETE /api/lahman2019clean/people/gerald82
    Response: Rows deleted: 0
    Explanation: The row doesn’t exist anymore it is already deleted previously at step 14.

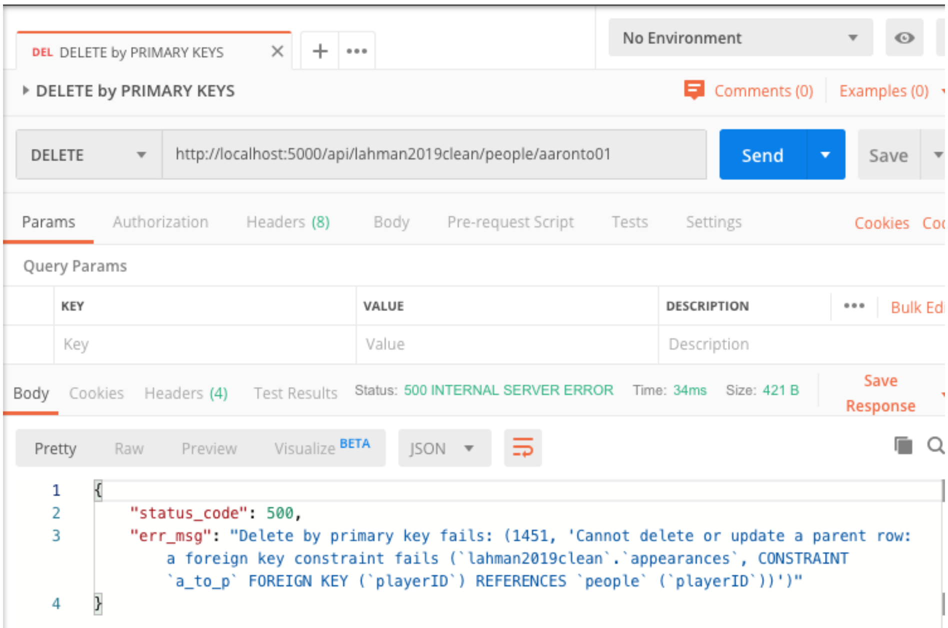


DELETE http://localhost:5000/api/lahman2019clean/people/gerald82

Status: 200 OK Time: 11ms Size: 192 B

```
{
    "status_code": 200,
    "msg": "Rows deleted: 0"
}
```

16. Route: DELETE /api/lahman2019clean/people/aaronto01
    Explanation: DELETE by primary key fails because there is a primary key reference constraint. Thus, the route will return 500 error code and the corresponding error message.

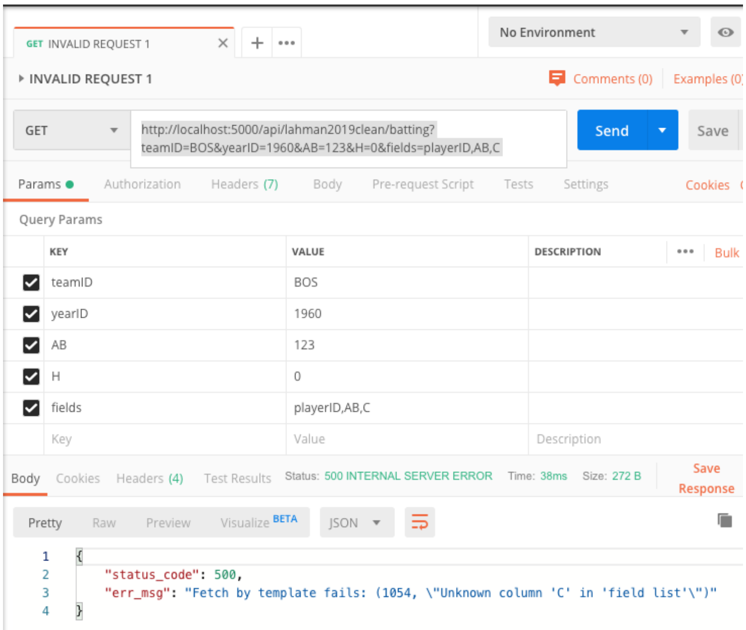


DELETE http://localhost:5000/api/lahman2019clean/people/aaronto01

Status: 500 INTERNAL SERVER ERROR Time: 34ms Size: 421 B

```
{
    "status_code": 500,
    "err_msg": "Delete by primary key fails: (1451, 'Cannot delete or update a parent row:
        a foreign key constraint fails (`lahman2019clean`.`appearances`, CONSTRAINT
        `a_to_p` FOREIGN KEY (`playerID`) REFERENCES `people` (`playerID`))')"
}
```

17. Route:
GET /batting?teamID=BOS&yearID=1960&AB=123&H=0&fields=playerID,AB,C
Explanation: MySQL internal error, no column 'C' in Batting



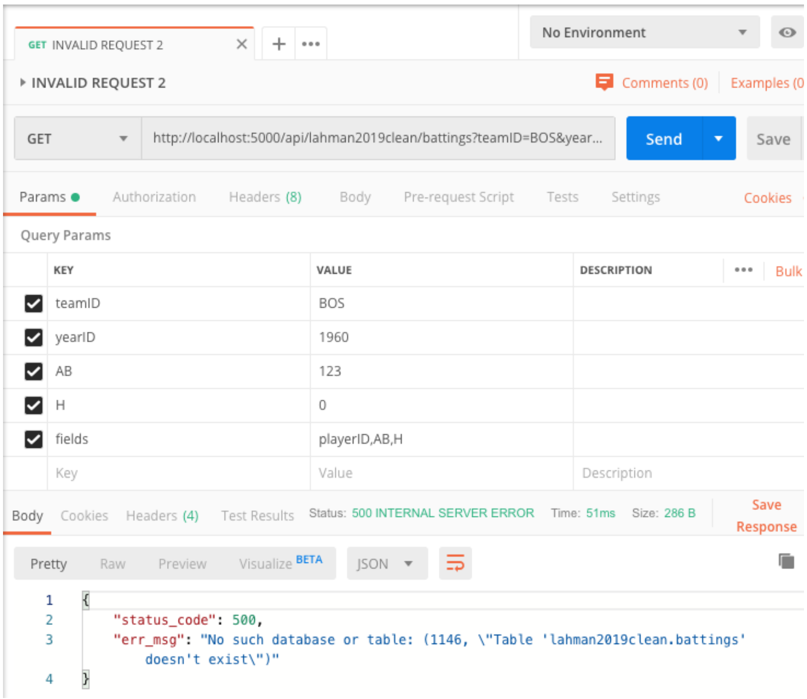
GET http://localhost:5000/api/lahman2019clean/batting?teamID=BOS&yearID=1960&AB=123&H=0&fields=playerID,AB,C

	KEY	VALUE	DESCRIPTION
☑	teamID	BOS	
☑	yearID	1960	
☑	AB	123	
☑	H	0	
☑	fields	playerID,AB,C	
	Key	Value	Description

Status: 500 INTERNAL SERVER ERROR Time: 38ms Size: 272 B

```
{
    "status_code": 500,
    "err_msg": "Fetch by template fails: (1054, \"Unknown column 'C' in 'field list'\")"
}
```

18. Route:
GET /battings?teamID=BOS&yearID=1960&AB=123&H=0&fields=playerID,AB,H
Body: {“nameLast”: “Dzakwan”}
Explanation: MySQL internal error, no table Battings in database



GET http://localhost:5000/api/lahman2019clean/battings?teamID=BOS&year...

	KEY	VALUE	DESCRIPTION
☑	teamID	BOS	
☑	yearID	1960	
☑	AB	123	
☑	H	0	
☑	fields	playerID,AB,H	
	Key	Value	Description

Status: 500 INTERNAL SERVER ERROR Time: 51ms Size: 286 B

```
{
    "status_code": 500,
    "err_msg": "No such database or table: (1146, \"Table 'lahman2019clean.battings'
        doesn't exist\")"
}
```