

RUN RESULT

go-employee-analytics

Dokumen ini berisi bukti bahwa aplikasi go-employee-analytics berhasil dijalankan dan seluruh fitur utama dapat diakses dengan baik melalui HTTP API.

Repository: <https://github.com/hackim18/go-employee-analytics>

1. Aplikasi Berjalan

Deskripsi

Menunjukkan bahwa aplikasi backend berhasil dijalankan dan siap menerima request.

```
PROBLEMS SONARQUBE DEBUG CONSOLE TERMINAL OUTPUT GITLENS

watching internal\repository
watching internal\usecase
watching internal\utils
watching output
watching sql
exclude tmp
building...
running...
2025/12/24 14:31:04 Successfully loaded configuration from .env
[GIN-debug] [WARNING] Running in "debug" mode. Switch to "release" mode in production.
- using env: export GIN_MODE=release
- using code: gin.SetMode(gin.ReleaseMode)

[GIN-debug] GET    /health           --> go-employee-analytics/internal/delivery/http.(*AnalyticsController).Health-fm (3 handlers)
[GIN-debug] GET    /q2              --> go-employee-analytics/internal/delivery/http.(*AnalyticsController).Q2-fm (3 handlers)
[GIN-debug] GET    /q3              --> go-employee-analytics/internal/delivery/http.(*AnalyticsController).Q3-fm (3 handlers)
[GIN-debug] GET    /q4              --> go-employee-analytics/internal/delivery/http.(*AnalyticsController).Q4-fm (3 handlers)
[GIN-debug] GET    /q5              --> go-employee-analytics/internal/delivery/http.(*AnalyticsController).Q5-fm (3 handlers)
[GIN-debug] POST   /q6/save         --> go-employee-analytics/internal/delivery/http.(*AnalyticsController).Q6Save-fm (3 handlers)
[GIN-debug] GET    /q7/file          --> go-employee-analytics/internal/delivery/http.(*AnalyticsController).Q7Read-fm (3 handlers)
[GIN-debug] GET    /q8              --> go-employee-analytics/internal/delivery/http.(*AnalyticsController).Q8-fm (3 handlers)
[GIN-debug] GET    /q9/sorted-unique --> go-employee-analytics/internal/delivery/http.(*AnalyticsController).Q9SortedUnique-fm (3 handlers)
[GIN-debug] GET    /q9/duplicates   --> go-employee-analytics/internal/delivery/http.(*AnalyticsController).Q9Duplicates-fm (3 handlers)
[GIN-debug] POST   /q9/remove       --> go-employee-analytics/internal/delivery/http.(*AnalyticsController).Q9Remove-fm (3 handlers)
[GIN-debug] POST   /q9/add          --> go-employee-analytics/internal/delivery/http.(*AnalyticsController).Q9Add-fm (3 handlers)
[GIN-debug] GET    /q10             --> go-employee-analytics/internal/delivery/http.(*AnalyticsController).Q10-fm (3 handlers)
[GIN-debug] GET    /api              --> go-employee-analytics/internal/delivery/http.route.(*RouteConfig).RegisterCommonRoutes.func1 (3 handlers)
[GIN-debug] Listening and serving HTTP on :8080
```

Table

The screenshot shows a database interface with the following details:

- Database: employee_analytics
- Table: annual_reviews
- Columns: id, emp_id, review_date
- Data:

Grid	123 id	123 emp_id	review_date
1	10	1	2016-01-01 07:00:00.000 +0700
2	20	2	2016-04-12 07:00:00.000 +0700
3	30	10	2015-02-13 07:00:00.000 +0700
4	40	22	2010-10-12 07:00:00.000 +0700
5	50	11	2009-01-01 07:00:00.000 +0700
6	60	12	2009-03-03 07:00:00.000 +0700
7	70	13	2008-12-01 07:00:00.000 +0700
8	80	1	2003-04-12 07:00:00.000 +0700
9	90	1	2014-04-30 07:00:00.000 +0700

Screenshot of a PostgreSQL database interface showing the 'employees' table. The table has columns: id, first_name, last_name, hire_date, termination_date, and salary. The data shows six rows of employee information.

	123 id	A-Z first_name	A-Z last_name	hire_date	termination_date	123 salary
1	1	Bob	Smith	2009-06-20 07:00:00.000 +0700	2016-01-01 07:00:00.000 +0700	10,000
2	2	Joe	Jarrod	2010-02-12 07:00:00.000 +0700	[NULL]	20,000
3	3	Nancy	Soley	2012-03-14 07:00:00.000 +0700	[NULL]	30,000
4	4	Keith	Widjaja	2013-09-10 07:00:00.000 +0700	2014-01-01 07:00:00.000 +0700	20,000
5	5	Kelly	Smalls	2013-09-10 07:00:00.000 +0700	[NULL]	20,000
6	6	Frank	Nguyen	2015-04-10 07:00:00.000 +0700	2015-05-01 07:00:00.000 +0700	60,000

Menunjukkan bahwa aplikasi backend berhasil dijalankan dan siap menerima request.

2. Health Check API

Endpoint

GET /health

The screenshot shows the Postman application interface. On the left, there's a sidebar with a tree view of API endpoints. One endpoint, 'Health', is expanded, showing sub-endpoints like 'Q2 - Active Smith Employees' and 'Q3 - Employees Without Reviews'. The main panel shows a 'GET /{{baseUri}}/health' request. The 'Params' tab is selected, with 'http://localhost:8080' entered. The 'Body' tab shows a JSON response: { "message": "Analytics health success", "data": { "status": "ok" } }. The status bar at the bottom indicates a 200 OK response.

3. Analisis Karyawan Aktif Berdasarkan Kriteria Nama

Endpoint

GET /q2

HTTP go-employee-analytics / Q2 - Active Smith Employees

GET `[[baseUri]]/q2`

Docs Params

Query Params

Body Cookies (1) Headers (3) Test Results

```
{
  "message": "Analytics Q2 success",
  "data": []
}
```

4. Karyawan Tanpa Data Ulasan

Endpoint

GET /q3

HTTP go-employee-analytics / Q3 - Employees Without Reviews

GET `[[baseUri]]/q3`

Docs Params

Query Params

Body Cookies (1) Headers (3) Test Results

```
[
  {
    "message": "Analytics Q3 success",
    "data": [
      {
        "first_name": "Nancy",
        "last_name": "Soley",
        "hire_date": "2012-03-14"
      },
      {
        "first_name": "Kelly",
        "last_name": "Smalls",
        "hire_date": "2013-09-10"
      },
      {
        "first_name": "Keith",
        "last_name": "Widjaja"
      }
    ]
  }
]
```

5. Selisih Tanggal Perekutan

Endpoint

GET /q4

Q4 - Hire Date Difference

Body

```
{
  "message": "Analytics Q4 success",
  "data": {
    "earliest_hire_date": "2010-02-12",
    "latest_hire_date": "2013-09-10",
    "difference_days": 1306
  }
}
```

6. Proyeksi Kenaikan Gaji dan Total Ulasan

Endpoint

GET /q5

Q5 - Salary Projections

Body

```
[
  {
    "id": 3,
    "first_name": "Nancy",
    "last_name": "Soley",
    "hire_year": 2012,
    "base_salary": 30000,
    "salary_2016": 52470.19,
    "review_count": 0
  },
  {
    "id": 2,
    "first_name": "Joe",
    "last_name": "Jairod",
    "hire_year": 2010,
    "base_salary": 20000
  }
]
```

7. Ekspor Data ke File

Endpoint

POST /q6/save

The screenshot shows the MongoDB Compass interface with the following details:

- Left Panel:** Shows the database structure with collections like Health, Q2, Q3, Q4, Q5, and Q6.
- Top Bar:** Shows the URL as go-employee-analytics / Q6 - Save Output Files and various navigation buttons.
- Request Panel:** A POST request to {{baseUrl}}/q6/save is selected. Headers: none. Body: JSON.
- Response Panel:** Status: 200 OK. Response body (JSON):


```

1 {
2   "message": "Analytics Q6 save success",
3   "data": [
4     {
5       "name": "contoh2.txt",
6       "path": "output\contoh2.txt"
7     },
8     {
9       "name": "contoh3.txt",
10      "path": "output\contoh3.txt"
11    },
12    {
13      "name": "contoh4.txt",
14      "path": "output\contoh4.txt"
15    }
16  ]

```

8. Bukti File Hasil Ekspor

The screenshot shows a code editor (VS Code) with four tabs open, each displaying a JSON file:

- contoh2.txt:** A single array entry representing a file named "contoh2.txt" in the "output" directory.
- contoh3.txt:** An array of two objects representing files "contoh3.txt" and "contoh4.txt" in the "output" directory.
- contoh4.txt:** An array of three objects representing files "contoh3.txt", "contoh4.txt", and "contoh5.txt" in the "output" directory.
- contoh5.txt:** An array of two objects representing files "contoh4.txt" and "contoh5.txt" in the "output" directory.

The code editor also shows the file structure on the left and a terminal at the bottom with some Go code and logs.

9. Membaca Data dari File

Endpoint

GET /q7/file?name=contoh3.txt

The screenshot shows the Postman interface with a collection tree on the left and a request details panel on the right.

Collection Tree:

- + Search collections
- GET Health (200 OK)
- GET Q2 - Active Smith Employees (200 OK)
- GET Q3 - Employees Without Reviews (200 OK)
- GET Q4 - Hire Date Difference (200 OK)
- GET Q5 - Salary Projections (200 OK)
- GET Q6 - Save Output Files (200 OK)
- POST Q6 - Save Output Files (200 OK)
- GET Q7 - Read Output File (200 OK) **(Selected)**
- GET Q8 - City Lookup (200 OK)
- GET Q9a - Sorted Unique Numbers (200 OK)
- GET Q9b - Duplicate Counts (200 OK)
- POST Q9c - Remove Numbers (400 Bad Request)
- GET Q9d - Remove Numbers (200 OK)

Request Details:

Method: GET
URL: {{baseUrl}}/q7/file?name=contoh3.txt

Params:

Key	Value	Description
name	contoh3.txt	
Key	Value	Description

Body: Cookies (1) Headers (3) Test Results 200 OK 4 ms 448 B Save Response

Response Preview:

```

9   [
10    {
11      "first_name": "Kelly",
12      "last_name": "Smalls",
13      "hire_date": "2013-09-10"
14    },
15    {
16      "first_name": "Keith",
17      "last_name": "Widjaja",
18      "hire_date": "2013-09-10"
19    },
20    {
21      "first_name": "Frank",
22      "last_name": "Nguyen",
23      "hire_date": "2015-04-10"
24    }
]

```

10. Validasi dan Pencarian Data Kota

Endpoint

GET /q8

The screenshot shows the Postman interface with a collection tree on the left and a request details panel on the right.

Collection Tree:

- + Search collections
- GET Health (200 OK)
- GET Q2 - Active Smith Employees (200 OK)
- GET Q3 - Employees Without Reviews (200 OK)
- GET Q4 - Hire Date Difference (200 OK)
- GET Q5 - Salary Projections (200 OK)
- POST Q6 - Save Output Files (200 OK)
- GET Q7 - Read Output File (200 OK)
- GET Q8 - City Lookup (200 OK) **(Selected)**
- GET Q9a - Sorted Unique Numbers (200 OK)
- GET Q9b - Duplicate Counts (200 OK)
- POST Q9c - Remove Numbers (400 Bad Request)
- GET Q9d - Remove Numbers (200 OK)

Request Details:

Method: GET
URL: {{baseUrl}}/q8?city=Bogor

Params:

Key	Value	Description
city	Bogor	
Key	Value	Description

Body: Cookies (1) Headers (3) Test Results 200 OK 2 ms 233 B Save Response

Response Preview:

```

1 {
2   "message": "Analytics Q8 success",
3   "data": {
4     "city": "Bogor",
5     "exists": false,
6     "suggestions": [
7       "Bandung",
8       "Makasar"
9     ]
10  }
11

```

11. Operasi Data Array

Endpoint

/q9/*

HTTP go-employee-analytics / Q9a - Sorted Unique Numbers

GET `(({baseUrl})) /q9/sorted-unique`

Docs Params Authorization Headers (8) Body Scripts Settings Cookies

Query Params

Key	Value	Description
Key	Value	Description

Body Cookies (1) Headers (3) Test Results 200 OK 2 ms 194 B Save Response

{ JSON Preview Visualize }

```

1 {
2   "message": "Analytics Q9 sorted unique success",
3   "data": [
4     1,
5     2,
6     3,
7     4,
8     6,
9     8,
10    9
11  ]
12 }

```

HTTP go-employee-analytics / Q9b - Duplicate Counts

GET `(({baseUrl})) /q9/duplicates`

Docs Params Authorization Headers (8) Body Scripts Settings Cookies

Query Params

Key	Value	Description
Key	Value	Description

Body Cookies (1) Headers (3) Test Results 200 OK 3 ms 332 B Save Response

{ JSON Preview Visualize }

```

17   "value": 4,
18   "count": 2
19 },
20 [
21   {
22     "value": 6,
23     "count": 3
24   },
25   {
26     "value": 8,
27     "count": 3
28   },
29   {
30     "value": 9,
31     "count": 1
32 ]

```

HTTP go-employee-analytics / Q9c - Remove Numbers

POST `(({baseUrl})) /q9/remove`

Docs Params Authorization Headers (11) Body Scripts Settings Cookies Schema Beautify

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

```

1 [
2   "remove": [
3     9,
4     1,
5     6,
6     4
7   ]

```

Body Cookies (1) Headers (3) Test Results 200 OK 2 ms 189 B Save Response

{ JSON Preview Visualize }

```

1 {
2   "message": "Analytics Q9 remove success",
3   "data": [
4     8,
5     3,
6     6,
7     2,
8     3,
9     3,
10    8,
11    2
12  ]
13 }

```

```

1 {
2   "add": 15
3 }

```

Body Cookies (1) Headers (3) Test Results ⚡

{} JSON ▾ D Preview ▾ Visualize ▾

```

1 {
2   "message": "Analytics Q9 add success",
3   "data": [
4     1,
5     2,
6     3,
7     4,
8     5,
9     6,
10    7,
11    8,
12    9,
13    10,
14    11,
15    12,
16    13,
17    14,
18    15
19  ]
20 }

```

200 OK 3 ms 218 B ⚡ Save Response ⚡

12. Generator Data Acak

Endpoint

GET /q10

Q Search collections

go-employee-analytics / Q10 - Random String Report

Save Share ⚡

Send

Docs Params Authorization Headers (8) Body Scripts Settings Cookies

Query Params

Key	Value	Description	Bulk Edit
Key	Value	Description	

Body Cookies (1) Headers (3) Test Results ⚡

{} JSON ▾ D Preview ▾ Visualize ▾

```

1 {
2   "message": "Analytics Q10 success",
3   "data": {
4     "generated": "lb24g48246tf0vf3lts72g6d1bo7xsv984d25zx64iytlf742vvq92012y9z5074n5tu11o17ue9s18c38k33y3zta1ze7v05",
5     "stats": {
6       "total_letters": 58,
7       "total_vowels": 11,
8       "total_numbers": 50,
9       "total_even_numbers": 25
10      },
11      "sorted_unique": [
12        "9",
13        "8",
14        "7",
15        "6",
16        "5",
17        "4",
18        "3",
19        "2",
20        "1"
21      ]
22    }
23 }

```

200 OK 3 ms 938 B ⚡ Save Response ⚡

13. Penutup

Seluruh fitur utama aplikasi telah berhasil dijalankan dan diverifikasi melalui HTTP API.