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Kelas : 5 A / Kelompok 3

Homework Week 8

Buatlah sebuah aplikasi Express JS yang dapat menampilkan data text pada halaman web yang didapatkan dari sampel data ini dan schema di sini sebagai referensi.

Soal 1: Lakukan seeding untuk menambahkan 5 data baru pada data table actor yang disediakan

Sebelum dilakukan Seeding

	actor_id [PK] integer	first_name character varying (45)	last_name character varying (45)	last_update timestamp without time zone
197	197	Reese	West	2013-05-26 14:47:57.62
198	198	Mary	Keitel	2013-05-26 14:47:57.62
199	199	Julia	Fawcett	2013-05-26 14:47:57.62
200	200	Thora	Temple	2013-05-26 14:47:57.62

Proses Seeding

```
src > utils > seeding.js > ...
1  const fs = require('fs');
2  const pool = require('./database');
3
4  const seedQuery = fs.readFileSync('src/utils/seeding.sql', { encoding: 'utf-8' });
5  pool.query(seedQuery, (error, result) => {
6    if (error) {
7      throw error;
8    }
9    console.log('Seeding Complete');
10   pool.end();
11 });
```

```
src > utils > seeding.sql
1  INSERT INTO actor (actor_id, first_name, last_name, last_update) VALUES
2  (201, 'Aswangga', 'Bhanu', NOW()),
3  (202, 'Java', 'Moreno', NOW()),
4  (203, 'Raul', 'Aksal', NOW()),
5  (204, 'Kennedy', 'Lewi', NOW()),
6  (205, 'Yoga', 'Ardiansyah', NOW());
```

```
6  "scripts": {
7    "seed": "node src/utils/seeding.js",
8    "test": "echo \"Error: no test specified\" && exit 1"
9  },
```

```

aswan@Bhanu MSYS ~/Documents/Rakamin/HomeWork/HW8 (main)
$ npm run seed

> hw8@1.0.0 seed
> node src/utils/seeding.js

Seeding Complete

```

Setelah dilakukan Seeding

	actor_id [PK] integer	first_name character varying (45)	last_name character varying (45)	last_update timestamp without time zone
200	200	Thora	Temple	2013-05-26 14:47:57.62
201	201	Aswangga	Bhanu	2023-10-06 13:30:25.531119
202	202	Java	Moreno	2023-10-06 13:30:25.531119
203	203	Raul	Aksal	2023-10-06 13:30:25.531119
204	204	Kennedy	Lewi	2023-10-06 13:30:25.531119
205	205	Yoga	Ardiansyah	2023-10-06 13:30:25.531119

Soal 2: Buatlah query untuk menampilkan data pada database sebagai berikut.

1. Menampilkan data seluruh list film



```

[{"film_id":1,"title":"Academy Dinosaur","description":"A Epic Drama of a Feminist And a Mad Scientist who must Battle a Teacher in The Canadian Rockies","release_year":2006,"language_id":1,"rental_duration":6,"rental_rate":"0.99","length":86,"replacement_cost":"20.99","rating":"PG","last_update":"2013-05-26T07:50:58.951Z","special_features":["Deleted Scenes","Behind the Scenes"],"fulltext":"'academi':1 'battl':15 'canadian':20 'dinosaur':2 'drama':5 'epic':4 'feminist':8 'mad':11 'must':14 'rocki':21 'scientist':12 'teacher':17}],{"film_id":2,"title":"Ace Goldfinger","description":"A Astounding Epistle of a Database Administrator And a Explorer who must Find a Car in Ancient China","release_year":2006,"language_id":1,"rental_duration":3,"rental_rate":"4.99","length":48,"replacement_cost":"12.99","rating":"G","last_update":"2013-05-26T07:50:58.951Z","special_features":["Trailers","Deleted Scenes"],"fulltext":"'ace':1 'administr':9 'ancient':19 'astound':4 'car':17 'china':20 'databas':8 'epistl':5 'explor':12 'find':15 'goldfing':2 'must':14}],{"film_id":3,"title":"Adaptation Holes","description":"A Astounding Reflection of a Lumberjack And a Car who must Sink a Lumberjack in A Baloon Factory","release_year":2006,"language_id":1,"rental_duration":7,"rental_rate":"2.99","length":50,"replacement_cost":"18.99","rating":"NC-17","last_update":"2013-05-26T07:50:58.951Z","special_features":["Trailers","Deleted Scenes"],"fulltext":"'adapt':1 'astound':4 'baloon':19 'car':11 'factori':20 'hole':2 'lumberjack':8,16 'must':13 'reflect':5 'sink':14}],{"film_id":4,"title":"Affair Prejudice","description":"A Fanciful Documentary of a Frisbee And a Lumberjack who must Chase a Monkey in A Shark Tank","release_year":2006,"language_id":1,"rental_duration":5,"rental_rate":"2.99","length":117,"replacement_cost":"26.99","rating":"G","last_update":"2013-05-26T07:50:58.951Z","special_features":["Commentaries","Behind the Scenes"],"fulltext":"'affair':1 'chase':14 'documentari':5 'fanci':4 'frisbe':8 'lumberjack':11 'monkey':16 'must':13 'prejudic':2 'shark':19 'tank':20}],{"film_id":5,"title":"African Egg","description":"A Fast-Paced Documentary of a Pastry Chef And a Dentist who must Pursue a Forensic Psychologist in The Gulf of Mexico","release_year":2006,"language_id":1,"rental_duration":6,"rental_rate":"2.99","length":130,"replacement_cost":"22.99","rating":"G","last_update":"2013-05-26T07:50:58.951Z","special_features":["Deleted Scenes"],"fulltext":"'african':1 'chef':11 'dentist':14 'documentari':7 'egg':2 'fast':5 'fast-pac':4 'forens':19 'gulf':23 'mexico':25 'must':16 'pace':6 'pastri':10 'psychologist':20 'pursu':17}],{"film_id":6,"title":"Agent Truman","description":"A Intrepid Panorama of a Robot And a Boy who must Escape a Sumo Wrestler in Ancient China","release_year":2006,"language_id":1,"rental_duration":3,"rental_rate":"2.99","length":169,"replacement_cost":"17.99","rating":"PG","last_update":"2013-05-26T07:50:58.951Z","special_features":["Deleted Scenes"],"fulltext":"'agent':1 'ancient':19 'boy':11 'china':20 'escap':14 'intrepid':4 'must':13 'panorama':5 'robot':8 'sumo':16 'truman':2 'wrestler':17}],{"film_id":7,"title":"Airplane Sierra","description":"A Touching Saga of a Hunter And a Butler who must Discover a Butler in A Jet Boat","release_year":2006,"language_id":1,"rental_duration":6,"rental_rate":"4.99","length":62,"replacement_cost":"28.99","rating":"PG-13","last_update":"2013-05-26T07:50:58.951Z","special_features":["Trailers","Deleted Scenes"],"fulltext":"'airplan':1 'boat':20 'butler':11,16 'discov':14 'hunter':8 'jet':19 'must':13 'saga':5 'sierra':2 'touch':4}],{"film_id":8,"title":"Airport Pollock","description":"A Epic Tale of a Moose And a Girl who must Confront a Monkey in Ancient India","release_year":2006,"language_id":1,"rental_duration":6,"rental_rate":"4.99","length":54,"replacement_cost":"15.99","rating":"R","last_update":"2013-05-26T07:50:58.951Z","special_features":["Trailers"],"fulltext":"'airport':1 'ancient':18 'confront':14 'epic':4 'girl':11 'india':19 'monkey':16 'moos':8 'must':13 'pollock':2 'tale':5}],{"film_id":9,"title":"Alabama Devil","description":"A Thoughtful Panorama of a Database Administrator And a Mad Scientist who must Outgun a Mad Scientist in A Jet Boat","release_year":2006,"language_id":1,"rental_duration":3,"rental_rate":"2.99","length":114,"replacement_cost":"21.99","rating":"PG-13","last_update":"2013-05-26T07:50:58.951Z","special_features":["Trailers","Deleted Scenes"],"fulltext":"'administr':9 'alabama':1 'boat':23 'databas':8 'devil':2 'jet':22 'mad':12,18 'must':15 'outgun':16 'panorama':5 'scientist':13,19 'thought':4}],{"film_id":10,"title":"Aladdin Calendar","description":"A Action-Packed Tale of a Man And a Lumberjack who must Reach a Feminist in Ancient China","release_year":2006,"language_id":1,"rental_duration":6,"rental_rate":"4.99","length":63,"replacement_cost":"24.99","rating":"NC-17","last_update":"2013-05-26T07:50:58.951Z","special_features":["Trailers","Deleted Scenes"],"fulltext":"'action':5 'action-pack':14 'aladdin':1 'ancient':20 'calendar':2 'china':21 'feminist':18 'lumberjack':13 'man':10 'must':15 'pack':6 'reach':16 'tale':7}],{"film_id":11,"title":"Alamo Videotape","description":"A Boring Epistle of a Butler And a Cat who must Fight a Pastry Chef in A MySQL Convention","release_year":2006,"language_id":1,"rental_duration":6,"rental_rate":"0.99","length":126,"replacement_cost":"16.99","rating":"G","last_update":"2013-05-26T07:50:58.951Z","special_features":["Commentaries","Behind the Scenes"],"fulltext":"'alamo':1 'bore':4 'butler':8 'cat':11 'chef':17 'convent':21 'epistl':5 'fight':14 'must':13 'mysql':20 'pastri':16 'videotap':2}],{"film_id":12,"title":"Alaska Phantom","description":"A Fanciful Saga of a Hunter And a Pastry Chef who must Vanquish a Boy in Australia","release_year":2006,"language_id":1,"rental_duration":6,"rental_rate":"0.99","length":136,"replacement_cost":"22.99","rating":"PG","last_update":"2013-05-

```

GET ▼ http://localhost:3000/api/v1/films Send ▼

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

Query Params

	Key	Value	Description	...	Bulk Edit
	Key	Value	Description		

Body Cookies Headers (7) Test Results 200 OK 134 ms 514.14 KB Save as Example ...

Pretty Raw Preview Visualize JSON ▼ 🔍

```

1  [
2    {
3      "film_id": 1,
4      "title": "Academy Dinosaur",
5      "description": "A Epic Drama of a Feminist And a Mad Scientist who must Battle a Teacher in The
6        Canadian Rockies",
7      "release_year": 2006,
8      "language_id": 1,
9      "rental_duration": 6,
10     "rental_rate": "0.99",

```

2. Menampilkan data film tertentu berdasarkan id

← → ↻ localhost:3000/api/v1/films/2 🔍 ⚙️ 📄 ⌵

```

1  // 20231006135829
2  // http://localhost:3000/api/v1/films/2
3
4  [
5    {
6      "film_id": 2,
7      "title": "Ace Goldfinger",
8      "description": "A Astounding Epistle of a Database Administrator And a Explorer who must Find a Car in Ancient China",
9      "release_year": 2006,
10     "language_id": 1,
11     "rental_duration": 3,
12     "rental_rate": "4.99",
13     "length": 48,
14     "replacement_cost": "12.99",
15     "rating": "G",
16     "last_update": "2013-05-26T07:50:58.951Z",
17     "special_features": [
18       "Trailers",
19       "Deleted Scenes"
20     ],
21     "fulltext": "'ace':1 'administr':9 'ancient':19 'astound':4 'car':17 'china':20 'databas':8 'epistl':5 'explor':12 'find':15
'goldfing':2 'must':14"
22   }
23 ]

```

GET <http://localhost:3000/api/v1/films/2> Send

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

Query Params

Key	Value	Description	...	Bulk Edit
Key	Value	Description		

Body Cookies Headers (7) Test Results 200 OK 87 ms 761 B Save as Example

Pretty Raw Preview Visualize JSON

```
1 {}
2 {
3   "film_id": 2,
4   "title": "Ace Goldfinger",
5   "description": "A Astounding Epistle of a Database Administrator And a Explorer who must Find a
6     Car in Ancient China",
7   "release_year": 2006,
8   "language_id": 1,
9   "rental_duration": 3,
10  "rental_rate": "4.99",
```

3. Menampilkan data list category

localhost:3000/api/v1/categories

```
1 // 20231006135910
2 // http://localhost:3000/api/v1/categories
3
4 [
5   {
6     "category_id": 1,
7     "name": "Action",
8     "last_update": "2006-02-15T02:46:27.000Z"
9   },
10  {
11    "category_id": 2,
12    "name": "Animation",
13    "last_update": "2006-02-15T02:46:27.000Z"
14  },
15  {
16    "category_id": 3,
17    "name": "Children",
18    "last_update": "2006-02-15T02:46:27.000Z"
19  },
20  {
21    "category_id": 4,
22    "name": "Classics",
23    "last_update": "2006-02-15T02:46:27.000Z"
24  },
25  {
26    "category_id": 5,
27    "name": "Comedy"
```

GET <http://localhost:3000/api/v1/categorys> Send

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

Query Params

	Key	Value	Description	...	Bulk Edit
	Key	Value	Description		

Body Cookies Headers (7) Test Results 200 OK 87 ms 1.42 KB Save as Example

Pretty Raw Preview Visualize JSON

```

1  [
2    {
3      "category_id": 1,
4      "name": "Action",
5      "last_update": "2006-02-15T02:46:27.000Z"
6    },
7    {
8      "category_id": 2,
9      "name": "Animation",
10     "last_update": "2006-02-15T02:46:27.000Z"
11   }
12 ]

```

4. Menampilkan data list film berdasarkan category

localhost:3000/api/v1/films?category=5

```

1  // 20231006135934
2  // http://localhost:3000/api/v1/films?category=5
3
4  [
5    {
6      "film_id": 7,
7      "title": "Airplane Sierra",
8      "description": "A Touching Saga of a Hunter And a Butler who must Discover a Butler in A Jet Boat",
9      "release_year": 2006,
10     "language_id": 1,
11     "rental_duration": 6,
12     "rental_rate": "4.99",
13     "length": 62,
14     "replacement_cost": "28.99",
15     "rating": "PG-13",
16     "last_update": "2006-02-15T02:46:27.000Z",
17     "special_features": [
18       "Trailers",
19       "Deleted Scenes"
20     ],
21     "fulltext": "'airplan':1 'boat':20 'butler':11,16 'discov':14 'hunter':8 'jet':19 'must':13 'saga':5 'sierra':2
'touch':4",
22     "category_id": 5,
23     "name": "Comedy"
24   },
25   {
26     "film_id": 28

```

The image displays two screenshots related to API development. The top screenshot shows a VS Code editor with a file named `20231006140003` containing a JSON object for a film. The bottom screenshot shows the Postman interface for a GET request to `http://localhost:3000/api/v1/films?category=4`.

VS Code File Content:

```
// 20231006140003
// http://localhost:3000/api/v1/films?category=13

[
  {
    "film_id": 22,
    "title": "Amistad Midsummer",
    "description": "A Emotional Character Study of a Dentist And a Crocodile who must Meet a Sumo Wrestler in California",
    "release_year": 2006,
    "language_id": 1,
    "rental_duration": 6,
    "rental_rate": "2.99",
    "length": 85,
    "replacement_cost": "10.99",
    "rating": "G",
    "last_update": "2006-02-15T02:46:27.000Z",
    "special_features": [
      "Commentaries",
      "Behind the Scenes"
    ],
    "fulltext": "'amistad':1 'california':20 'charact':5 'crocodil':12 'dentist':9 'emot':4 'meet':15 'midsumm':2 'must':14 'studi':6 'sumo':17 'wrestler':18",
    "category_id": 13,
    "name": "New"
  },
  {
    "film_id": 25,
```

Postman Interface:

GET `http://localhost:3000/api/v1/films?category=4` **Send**

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

Query Params

	Key	Value	Description	...	Bulk Edit
<input checked="" type="checkbox"/>	category	4			
	Key	Value	Description		

Body Cookies Headers (7) Test Results 200 OK 99 ms 30.99 KB Save as Example

Pretty Raw Preview Visualize **JSON**

```
1 [
2   {
3     "film_id": 14,
4     "title": "Alice Fantasia",
5     "description": "A Emotional Drama of a A Shark And a Database Administrator who must Vanquish a
6       Pioneer in Soviet Georgia",
7     "release_year": 2006,
8     "language_id": 1,
9     "rental_duration": 6,
```

Implementasikan routing yang sesuai dan benar pada aplikasi yang teman-teman buat.

Soal 3: Lakukan migrasi database dengan menambahkan column age pada tabel actor yang tersedia

Sebelum melakukan migrasi database

	actor_id [PK] integer	first_name character varying (45)	last_name character varying (45)	last_update timestamp without time zone
200	200	Thora	Temple	2013-05-26 14:47:57.62
201	201	Aswangga	Bhanu	2023-10-06 13:30:25.531119
202	202	Java	Moreno	2023-10-06 13:30:25.531119
203	203	Raul	Aksal	2023-10-06 13:30:25.531119
204	204	Kennedy	Lewi	2023-10-06 13:30:25.531119
205	205	Yoga	Ardiansyah	2023-10-06 13:30:25.531119

Proses Migrasi

```
{..} database.json X
{..} database.json > ...
1 {
2   "dev":{
3     "driver": "pg",
4     "user": "postgres",
5     "password": "Bismillah27",
6     "host": "localhost",
7     "database": "dvdrental"
8   }
9 }
```

```
aswan@Bhanu MSYS ~/Documents/Rakamin/Homework/HW8 (main)
$ db-migrate create initialization --sql-file
[INFO] Created migration at C:\Users\aswan\Documents\Rakamin\Homework\HW8\migrations\20231006065004-initialization.js
[INFO] Created migration up sql file at C:\Users\aswan\Documents\Rakamin\Homework\HW8\migrations\sqls\20231006065004-initialization-up.sql
[INFO] Created migration down sql file at C:\Users\aswan\Documents\Rakamin\Homework\HW8\migrations\sqls\20231006065004-initialization-down.sql

aswan@Bhanu MSYS ~/Documents/Rakamin/Homework/HW8 (main)
$ db-migrate up
received data: ALTER TABLE actor
ADD COLUMN age integer;
[INFO] Processed migration 20231006065004-initialization
[INFO] Done
```

Sesudah melakukan migrasi database

	actor_id [PK] integer	first_name character varying (45)	last_name character varying (45)	last_update timestamp without time zone	age integer
1	1	Penelope	Guinness	2013-05-26 14:47:57.62	[null]
2	2	Nick	Wahlberg	2013-05-26 14:47:57.62	[null]
3	3	Ed	Chase	2013-05-26 14:47:57.62	[null]
4	4	Jennifer	Davis	2013-05-26 14:47:57.62	[null]
5	5	Johnny	Lollobrigida	2013-05-26 14:47:57.62	[null]
6	6	Bette	Nicholson	2013-05-26 14:47:57.62	[null]

Link Repository Github

<https://github.com/Bhanurzh/RakaminFSWD/tree/main/HW8>