

Sidang Kerja Praktek

Back End & Front End PT Integrasia Utama

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Tinjauan umum perusahaan

Dalam peningkatan dan inovasi yang berkelanjutan, PT Integrasia Utama telah merilis dan mengembangkan solusi produk, seperti OSLOG (One Spirit Logistic) dan OSCARP (Car Pooling) yang melayani dan mendukung industri transportasi dan logistik. Solusi ini menggabungkan proses bisnis transportasi dan logistik untuk memanfaatkan data geospasial, yang terintegrasi dengan pelacakan data secara real time. Kemudian OSME (Onboard Entertainment System), SIOPAS (Integrated Business of Asset Management), dan GEOHR (Integrated Business Process of Human Resource). Solusi-solusi ini terintegrasi dengan geospasial, kemampuan real time tracking dan solusi IoT lainnya. Dengan pengalaman lebih dari 18 tahun di pasar, PT Integrasia Utama telah belajar bagaimana menavigasi perubahan-perubahan ini dan menjadi lebih percaya diri tentang bagaimana dapat berkontribusi pada industri ini. ([Why Integrasia? – Integrasia Utama](#))

Team

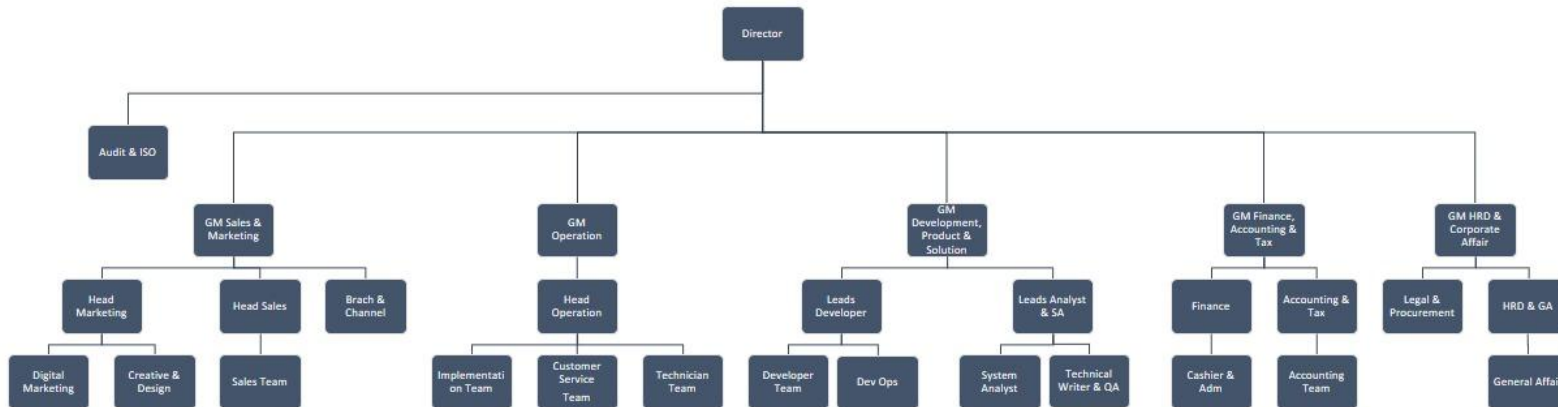
OSPRO

Generic

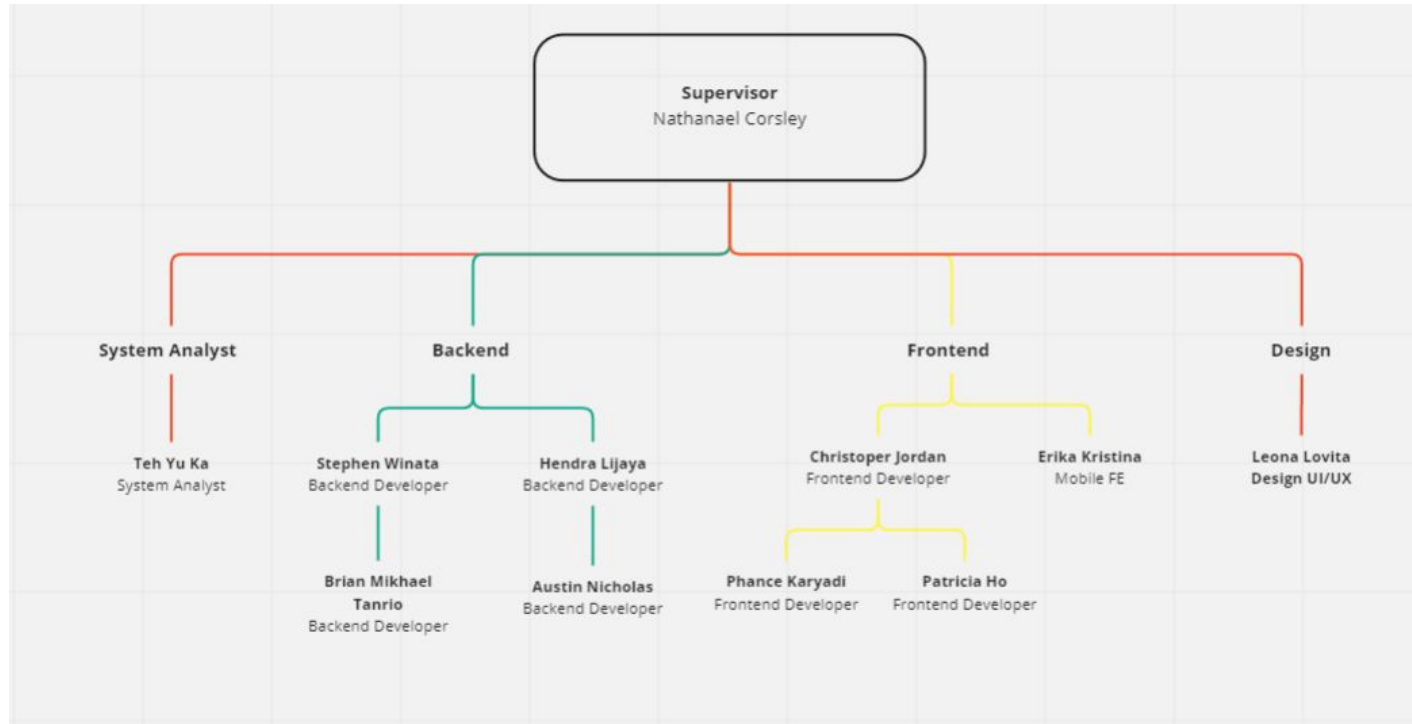
yang merupakan pengembangan perangkat lunak untuk melakukan manajemen proyek. Manajemen proyek perangkat lunak merupakan alat yang sangat berperan penting dalam pengembangan proyek karena dapat menjadi penentu pengambil keputusan dalam sebuah proyek. Manajemen proyek perangkat lunak bertugas untuk melakukan pemantauan kemajuan proyek, untuk memastikan bahwa kemajuan proyek berjalan sesuai dengan rencana

Struktur Organisasi Perusahaan

Organization Chart
Integrasia Utama, PT
2023



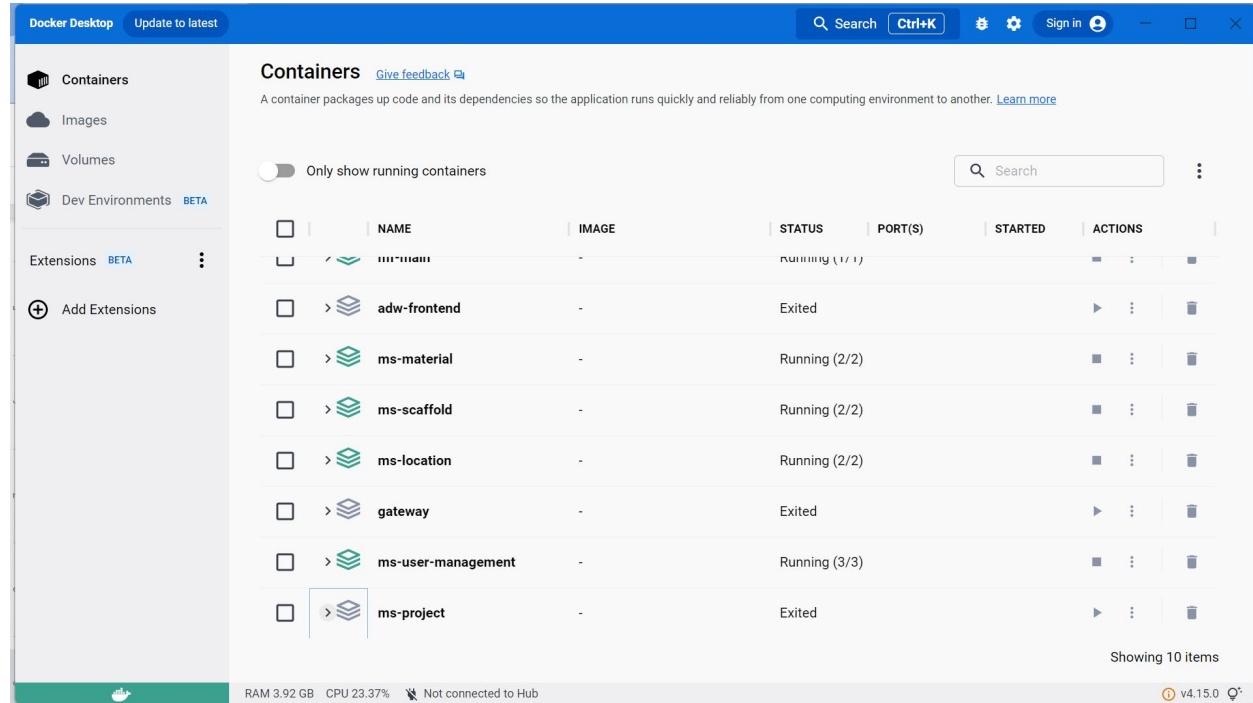
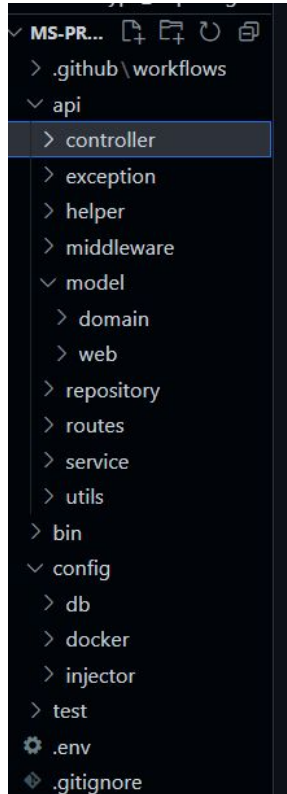
Struktur Organisasi OSPRO GENERIC



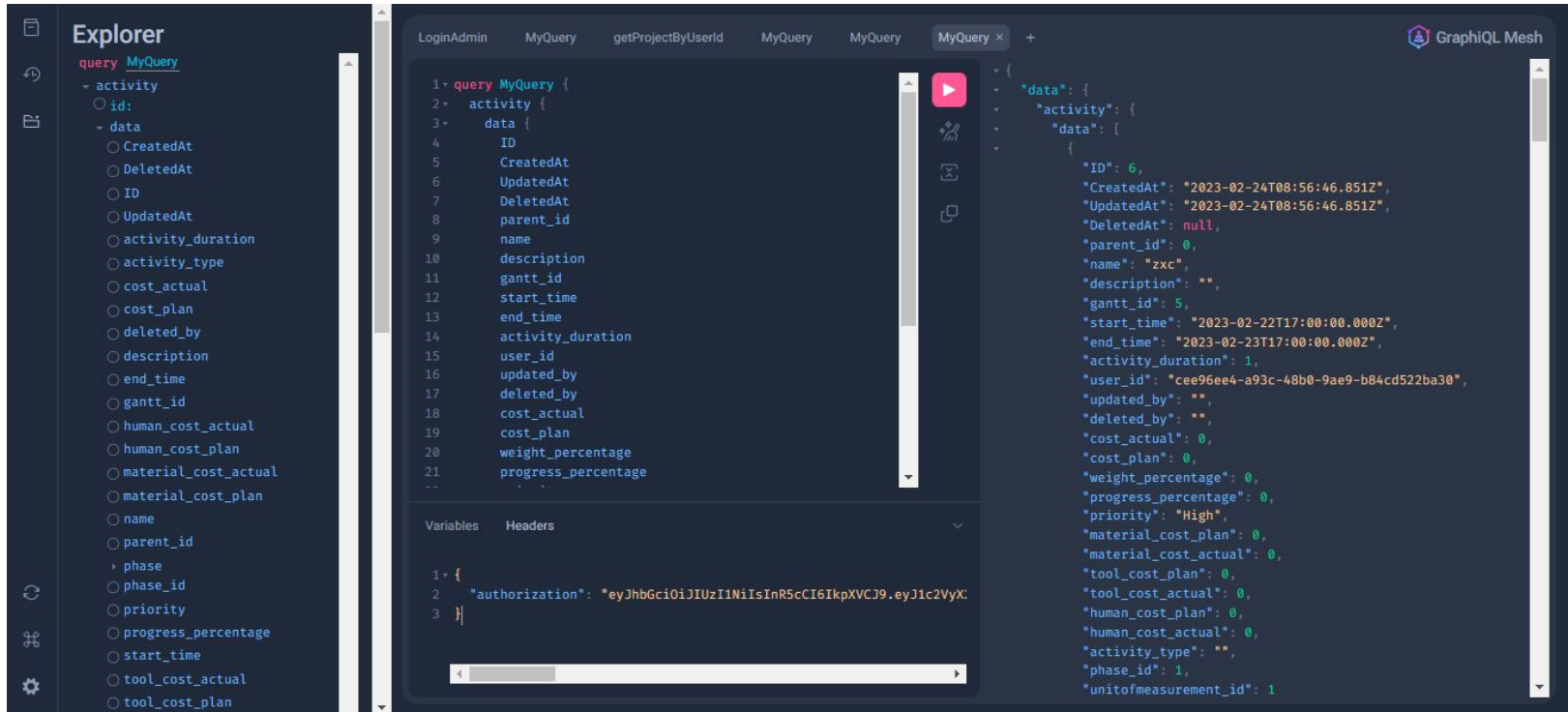
Job Description Backend

1. Merancang struktur data dalam microservices. (PostgreSQL)
2. Mengimplementasi Clean Architecture dalam direktori microservice yang menangani interaksi antara user dengan database melalui API. (Golang & Docker)
3. Mengelola skema GraphQL untuk kueri dan mutasi yang dibutuhkan oleh frontend dalam menyalurkan data dari database ke tampilan depan ataupun sebaliknya. (GraphQL)
4. Merancang workflow test berdasarkan operasi CRUD masing-masing microservice. (Postman)
5. Melakukan dokumentasi terkait hasil dari workflow test. (Newman)
6. Melakukan pemeriksaan dan deteksi masalah dalam kode untuk membantu dalam memberikan kode yang bersih. (SonarQube)

Clean Architecture Microservices



GraphQL Schema



The screenshot displays a GraphQL IDE interface with three main sections:

- Explorer (Left Panel):** Lists the schema types and their fields. The `MyQuery` type is selected, showing fields like `id`, `CreatedAt`, `DeletedAt`, `ID`, `UpdatedAt`, `activity_duration`, `activity_type`, `cost_actual`, `cost_plan`, `deleted_by`, `description`, `end_time`, `gannt_id`, `human_cost_actual`, `human_cost_plan`, `material_cost_actual`, `material_cost_plan`, `name`, `parent_id`, `phase`, `phase_id`, `priority`, `progress_percentage`, `start_time`, `tool_cost_actual`, and `tool_cost_plan`.
- Query Editor (Middle Panel):** Contains a query named `MyQuery` that fetches an `activity` object with its `data` field expanded to show all attributes.

```
1 query MyQuery {
2   activity {
3     data {
4       ID
5       CreatedAt
6       UpdatedAt
7       DeletedAt
8       parent_id
9       name
10      description
11      gannt_id
12      start_time
13      end_time
14      activity_duration
15      user_id
16      updated_by
17      deleted_by
18      cost_actual
19      cost_plan
20      weight_percentage
21      progress_percentage
22    }
23  }
24 }
```
- Response (Right Panel):** Shows the JSON response for the query, including a `data` object with an `activity` object containing all the fields specified in the query.

```
{
  "data": {
    "activity": {
      "data": [
        {
          "ID": 6,
          "CreatedAt": "2023-02-24T08:56:46.851Z",
          "UpdatedAt": "2023-02-24T08:56:46.851Z",
          "DeletedAt": null,
          "parent_id": 0,
          "name": "zxc",
          "description": "",
          "gannt_id": 5,
          "start_time": "2023-02-22T17:00:00.000Z",
          "end_time": "2023-02-23T17:00:00.000Z",
          "activity_duration": 1,
          "user_id": "cee96ee4-a93c-48b0-9ae9-b84cd522ba30",
          "updated_by": "",
          "deleted_by": "",
          "cost_actual": 0,
          "cost_plan": 0,
          "weight_percentage": 0,
          "progress_percentage": 0,
          "priority": "High",
          "material_cost_plan": 0,
          "material_cost_actual": 0,
          "tool_cost_plan": 0,
          "tool_cost_actual": 0,
          "human_cost_plan": 0,
          "human_cost_actual": 0,
          "activity_type": "",
          "phase_id": 1,
          "unitofmeasurement_id": 1
        }
      ]
    }
  }
}
```


API Testing

QUERY

```
1 mutation addProject(  
2   $status: String!  
3   $work_area: String!  
4   $start_project: DateTime!  
5   $stakeholder_ammount: Int!  
6   $role_id: Int!  
7   $type_id: Int!  
8   $considered_success_when: String!
```

Body Cookies Headers (6) Test Results (5/5)

All Passed Skipped Failed

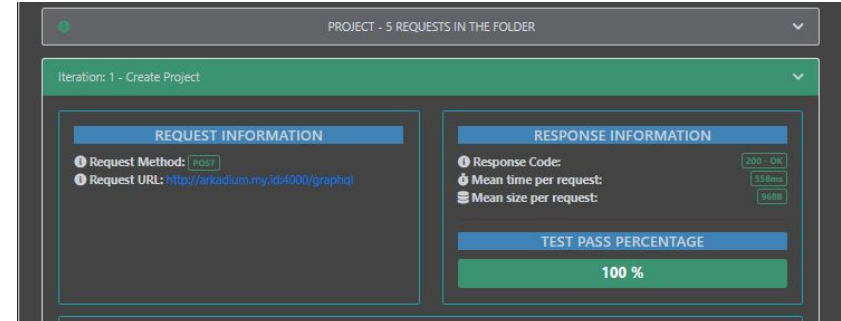
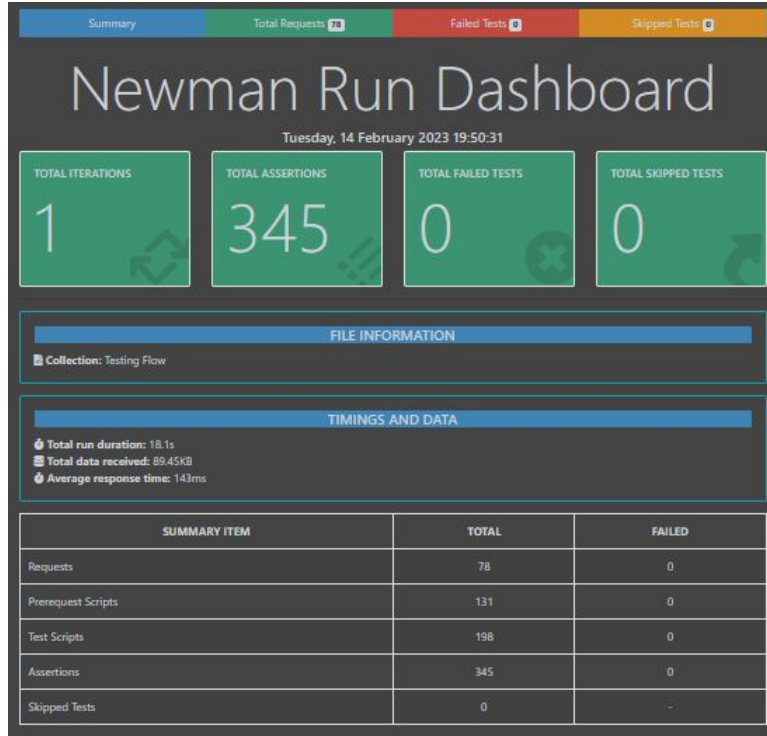
- PASS response status code should be 200 and has no errors
- PASS response Content-Type header should have application/graphql-response+json value
- PASS response body should be an object
- PASS response body should have the correct property and value
- PASS response body data should have ID property and not equal to empty

```
1 pm.test('response status code should be 200 and has no errors', function () {  
2   pm.response.to.not.be.error;  
3   pm.response.to.not.have.jsonBody("");  
4   pm.response.to.not.have.jsonBody("errors");  
5   pm.response.to.be.withBody;  
6   pm.response.to.be.json;  
7   pm.response.to.have.status("OK");  
8   pm.response.to.have.status(200);  
9 });  
10  
11 pm.test('response Content-Type header should have application/graphql-response  
12   pm.expect(pm.response.headers.get('Content-Type')).toEqual('application  
13 });  
14  
15 pm.test('response body should be an object', () => {  
16   const responseJson = pm.response.json();  
17   pm.expect(responseJson).to.be.an('object');  
18 });  
19  
20 pm.test('response body should have the correct property and value', () => {  
21   const responseJson = pm.response.json();  
22  
23   pm.expect(responseJson).to.haveOwnProperty('data');  
24   pm.expect(responseJson.data).to.be.an('object');  
25 });
```

Blackbox Testing


TEST			EXPECTED RESULT	ACTUAL RESULT	STATUS	NOTE	RESPONSES
SCENARIO	CASE	STEP					
User Management Authentication							
Authentication Register	Create User In User Management	<div>1. Open Postman Create a Function POST with the url http://localhost:1002/api/v1/auth/register</div> <div>2. Insert Json { "role_id": "dc9076e9-2fda-4019-bd2c-900a8284b9c4", "company_id": "dc9076aa-2fda-4019-bd2c-900a8284b9aa", "username": "SU3R4Dm1n", "first_name": "Super", "last_name": "Admin", "nik": "1234561231231", "address": "Jalan", "phone_number": "08123456789", "gender": "Male", "email": "coba@gmail.com", "password": "\$2y\$04\$U2l46u1o0GLoVa30cEX.ub8Blr.QrtZpBjdXPYU Lpc0DxoPSApFm" } 3. Use the function postman and see the data insert to database</div>	<div>{ data: { register: { "id": "82e7307e-29c9-4b86-be9e-294b3deda39c", "role_id": "dc9076e9-2fda-4019-bd2c-900a8284b9c4", "company_id": "dc9076aa-2fda-4019-bd2c-900a8284b9aa", "username": "SU3R4Dm1n", "first_name": "Super", "last_name": "Admin", "nik": "1234561231231", "address": "Jalan", "phone_number": "08123456789", "gender": "Male", "email": "coba@gmail.com" } } }</div>	As expected			
Authentication Login	Authentication User In User Management by login	<div>1. Open Postman Create a Function Post with the url http://localhost:1002/api/v1/auth/login</div> <div>2. Insert Json { "email": "coba@gmail.com", "password": "4dM1nSuPeR" } </div>	<div>data: { login: { data: { id: "dc9076bb-2fda-4019-bd2c-900a8284b9bb", auth_token: "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJ1c2VyX2lkljoZGM5MDc2Ym1tMmZkYS00MDE5LWJkMmMtOTAuYTgyODRlOWJlilwidXNlcm5hbWUiOiJTVXAzUjREbTFullwiZWI1aWw1OiJib2JhQGdtYWlsLmNvbSIsInJvGVfaWQlOiJkYzkwNzZlOS0yZmRhLTQwMTktYmQyYy05MDBhODI4NGI5ZyQlLCJleHAiOiJlbnR5b2U4NjA0NjlsImhldCI6MTY3NTI1NTY2MiwiaXNzIjoZ29sYW5nLWp3dCJ9.wn-8oSZQPcNCE1i-gpbBdZjCvse0cVCUbbxSVZTaok", refresh_token: "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJ1c2VyX2lkljoZGM5MDc2Ym1tMmZkYS00MDE5LWJkMmMtOTAuYTgyODRlOWJlilwidXNlcm5hbWUiOiJTVXAzUjREbTFullwiZWI1aWw1OiJib2JhQGdtYWlsLmNvbSIsInJvGVfaWQlOiJkYzkwNzZlOS0yZmRhLTQwMTktYmQyYy05" } } }</div>	As expected			

Workflow Testing Documentation



TEST INFORMATION				
Search: <input type="text"/>				
Name	Passed	Failed	Skipped	
response body data should have ID property and not equal to empty	1	0	0	
response body should be an object	1	0	0	
response body should have the correct property and value	1	0	0	
response Content-Type header should have application/graphql-response+json value	1	0	0	
response status code should be 200 and has no errors	1	0	0	
Total	5	0	0	

Code Performance Test

 Projects Issues Rules Quality Profiles Quality Gates Administration

?

Q Search for projects...

A

test1 ☆ main +

Last analysis of this Branch had 1 warning March 6, 2023 at 5:20 PM Version 1.0

Overview Issues Security Hotspots Measures Code Activity

Project Settings ▾ Project Information

Passed

All conditions passed.

New Code

Since March 6, 2023
Started 3 hours ago

Overall Code

0 New Bugs

Reliability A

0 New Vulnerabilities

Security A

0 New Security Hotspots

Reviewed

Security Review A

0 Added Debt

0 New Code Smells

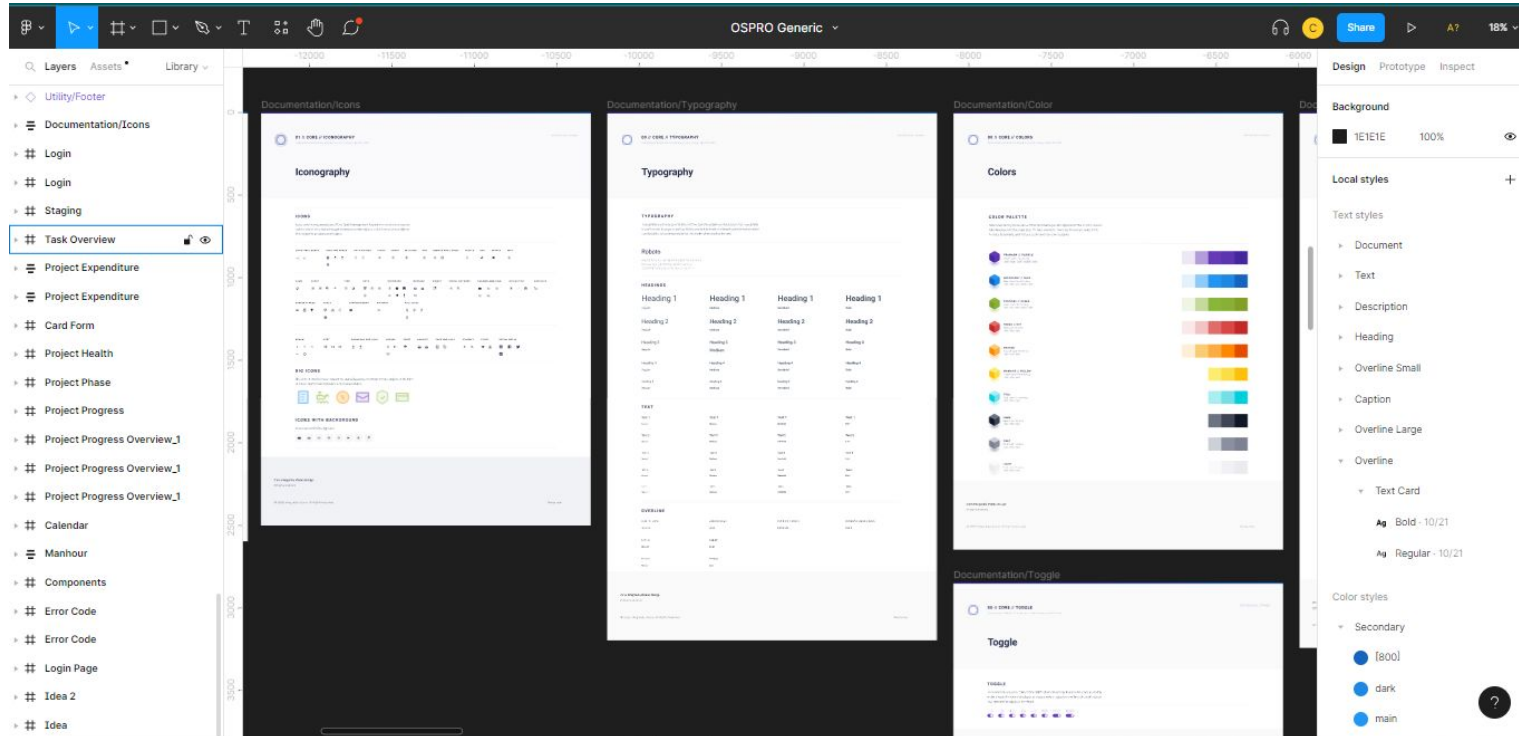
Maintainability A

— Duplications on 0 New Lines

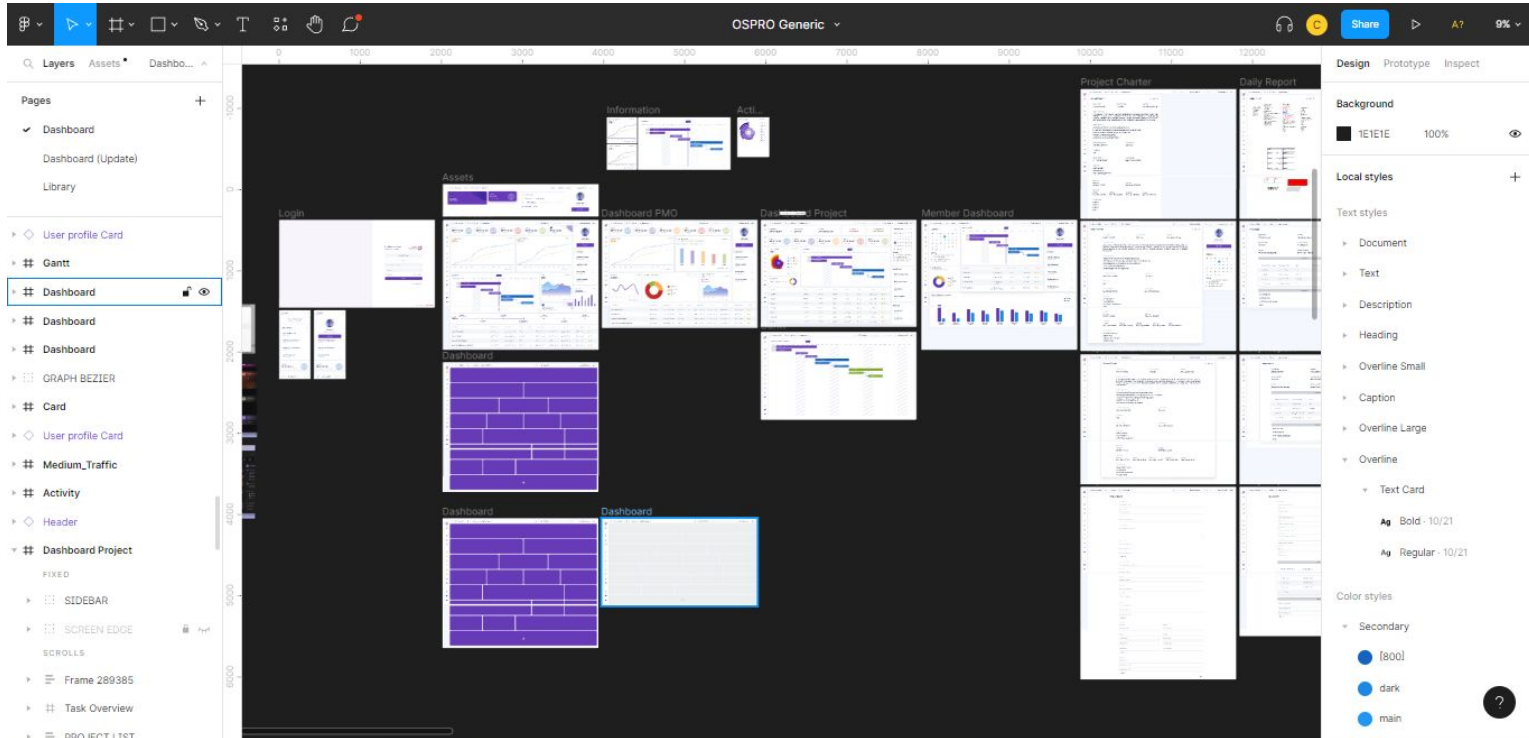
Job Description Frontend

1. Dokumentasi Tema untuk desain Software Project Management (Figma)
2. Desain awal Software Project Management berbasis website (Figma)
3. Membuat dan Mendesain Website Software Project Management (ReactJS)
4. Mengkoneksi Website dengan database (Apollo Client & GraphQL)
5. User Acceptance Testing Frontend

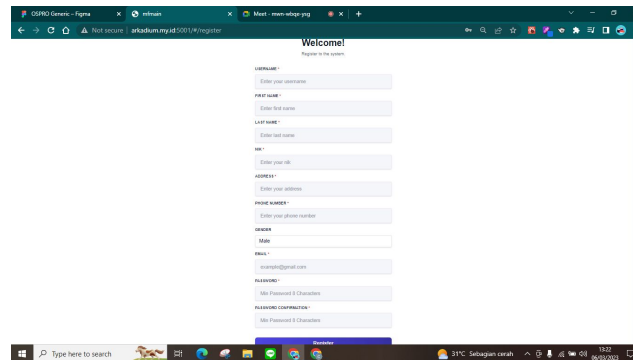
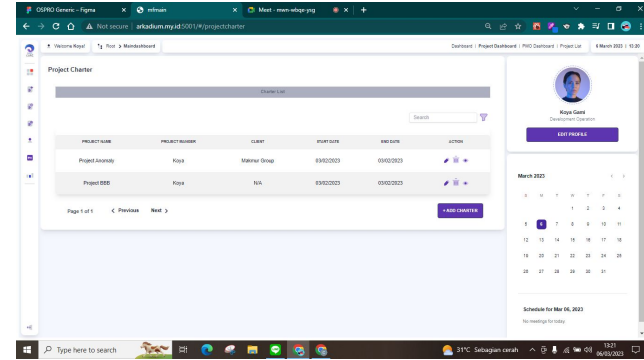
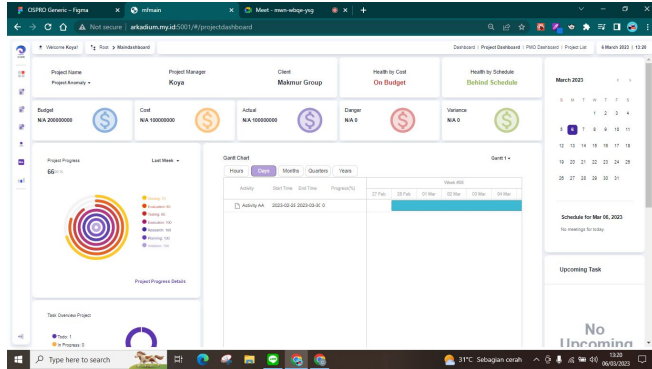
Dokumentasi Tema Desain Software

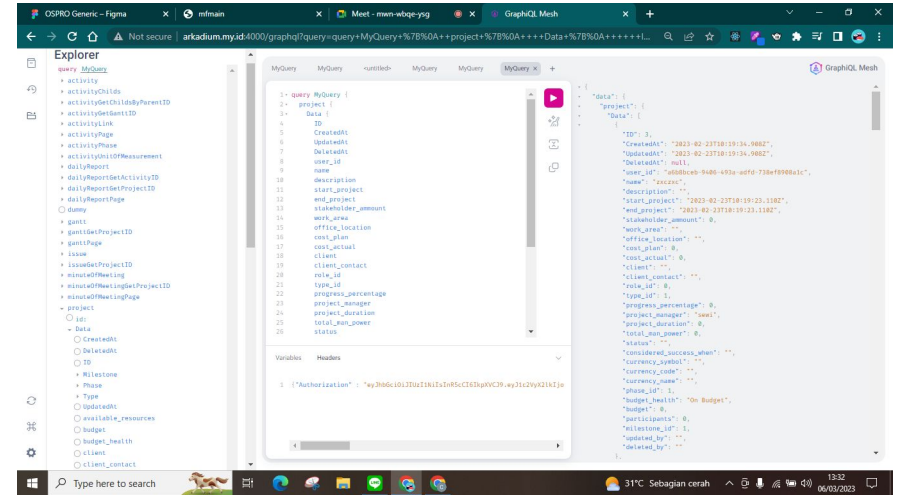


Desain awal Software berbasis Website



Membuat dan Mendesain Website





User Acceptance Testing Frontend

UAT - OSPRO Management

SCENARIO	CASE	TEST	STEP	EXPECTED RESULT	ACTUAL RESULT	STATUS	NOTE	RESPONSES
Open URL	Open Website	1. Type or input OSPRO website URL	The system load login page correctly and all elements are displayed as expected without any errors or issues	As expected				
Register page load	Verify register page loads correctly	1. Open the website URL and navigate to the register page 2. Verify that the register page is displayed correctly and all elements are in the correct position	The register page load correctly and all elements are displayed as expected without any errors or issues	As expected				
Input validation	Verify input validation	1. Try to submit the registration form with missing or invalid information 2. Verify that the appropriate error messages are displayed for missing or invalid inputs	The system display the appropriate error messages and prevent the submission of the form with missing or invalid information	As expected				
Account creation	Verify account creation	1. Submit the registration form with valid information 2. Verify that a new account is created and the user is redirected to the account dashboard or a confirmation page	A new account created successfully and the user redirected to the login page	As expected				
Email uniqueness	Verify email uniqueness	1. Re-submit the registration form with the same email 2. Verify and confirm that the account identified by this email exists	A notification that the account by this email exists and user redirected to the login page	Not really as expected				
Login page load	Verify login page loads correctly	1. Open the website URL and navigate to the login page 2. Verify that the login page is displayed correctly and all elements are in the correct position	The login page load correctly and all elements are displayed as expected without any errors or issues	As expected				
Input validation	Verify input validation	1. Try to submit the login form with missing or invalid information 2. Verify that the appropriate error messages are displayed for missing or invalid inputs	The system should display the appropriate error messages and prevent the submission of the form with missing or invalid information	As expected				

OSPRO Generic - Figma

Not secure | arkadium.my.id:5001/#/projectcharter

Welcome Koya! | Root | Mandatboard | Dashboard | Project Dashboard | PMO Dashboard

Project created successfully!

Koya Gami
Development Operation

EDIT PROFILE

Project Charter

Charter List

Search

PROJECT NAME	PROJECT MANAGER	CLIENT	START DATE	END DATE	ACTION
Project Anomaly	Koya	Makmur Group	03/02/2023	03/02/2023	Edit Delete
Project EBB	Koya	N/A	03/02/2023	03/02/2023	Edit Delete
Project aaaa	Koya	N/A	03/06/2023	03/06/2023	Edit Delete

Page 1 of 1 | [Previous](#) | [Next](#) | [+ ADD CHARTER](#)

March 2023

S M T W T F S

1 2 3 4

5 6 7 8 9 10 11

12 13 14 15 16 17 18

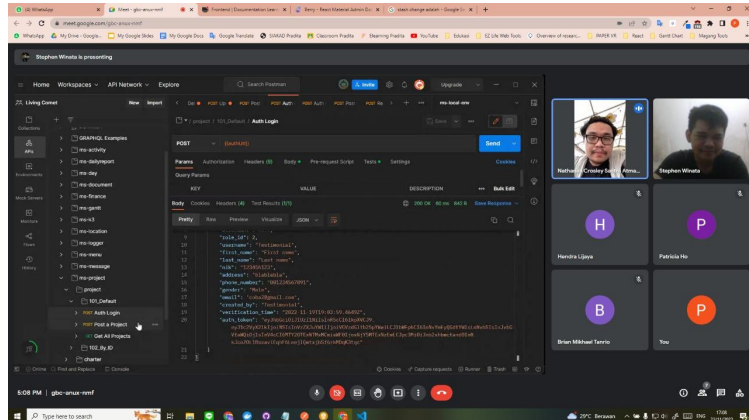
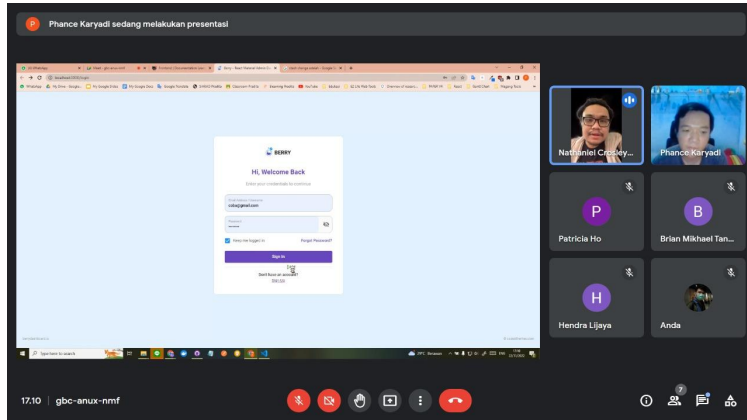
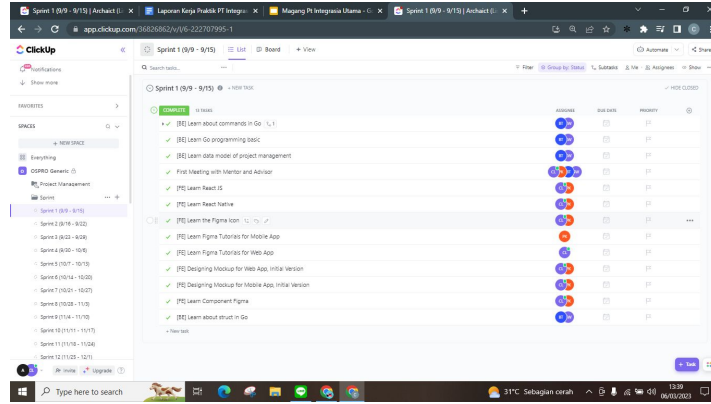
19 20 21 22 23 24 25

26 27 28 29 30 31

Schedule for Mar 06, 2023

No meetings for today

Dokumentasi



Manfaat kerja Praktek

1. Menambah koneksi dengan banyak orang baru khususnya orang di bidang IT
2. Menambah pengalaman bekerja di industri secara langsung
3. Menambah banyak ilmu khususnya di bidang software development
4. Memperoleh kesempatan untuk membentuk dan mengasah soft skills di dunia kerja.

Kendala kerja Praktek

1. Kesulitan dalam memecahkan error atau bug yang ditemukan selama pengembangan aplikasi web.
2. Kesulitan dalam memahami alur kerja dan manfaat dari aplikasi web yang sedang dikembangkan.
3. Kesulitan dalam pengembangan software karena *requirements* yang beragam dan berubah-ubah

Solusi menyelesaikan Kendala

1. Mencari-cari referensi di Internet dan dokumentasi terkait *error* dan *bug* yang serupa
2. Mencari-cari referensi dan dokumentasi terkait aplikasi yang serupa dengan yang dikembangkan
3. Berkomunikasi dengan pihak yang berkepentingan agar *requirements* dapat sesuai

Hasil dari Pekerjaan

1. [Website](#)
2. [GraphQL](#)
3. [Desain Figma](#)
4. [User Acceptance Test](#)
5. [Workflow Test's Postman Collection](#)
6. [Workflow Test Result Dashboard](#)
7. [Video Testing Flow Website](#)

Lampiran



Datang ke PT Integrasi Utama

Surat keterangan Kerja Praktek

Thank you!