FAD Performance Monitoring App

Date	@August 5, 2022
Summary	Project for developing app to replace (combining) scattered app used by FAD to submit a report
Tags	architecture backend golang postgre service
In Charge	
created	@August 5, 2022 8:28 AM
created by	
Team	Farm
Swimlane	efarm-harvest
state	initiated
↗ application	
↗ RFC relation	
Url	
PRD	

▼ ***Related Document***

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Need Review

@Mention person	<set Status or description>

Version

date updated	changes summary

1. Summary

> 💡 *TLDR lo mau ngajuin apa, masalah lo apa dan bentuknya apa, pitch paragraph gitu.*

FAD Performance Monitoring App is an application used to give a great experience for ***Field Aquaculture Development (FAD)*** by give them easiness to submit collected data from farm when they doing visit to farm.

At this time tools used by FAD to submit collected data are scattered everywhere (Budibase for Data Ponds and Cultivation, Budibase for Activity Visit, Shinyapp for Product Ouput, Budibase for Product Input, and Budibase for eFeeder).

Because the unpractical step caused by scattered app it caused data lagging at field and Headquarter. This app the problem should be resolved the data lagging so that the needs of the business regarding Targets, Achievements and Incentives can be more precise and accurate.

Read more: Sales Performance Monitoring

2. Problem and Motivation

> 💡 https://whimsical.com/join/2EY1WcTvBAGYhZ1E6Dyp3J?invite=ix3mlgxx*Latar belakang dan why problem, What's the current status of real condition, refer ke Problem Definition juga bisa.*

The existing tools used for FAD performance monitoring are scattered, it gives hassle to FAD to report their activity because there are a lot of tools and make data lagging for everyone who needed the data. Because there are a lot of tools, it’s hard to do automation to calculate performance metrics and make decisions for higher-level field ops hierarchy.

3. Detailed Design

> 💡 *Bisa pasang sketching, C4 architecture, pseudocode, flow/algorithm, rancangan kode modul, cara penggunaan, constraint, ide teknis, dll yang spesifik teknis.*

User Journeys

- Field Aquaculture Development Account Journey
- Area Manager Account Journey
- Regional Manager Account Journey
- Upstream Analyst Account Journey
- Key Account Manager Account Journey

Features

- Read user account detail data
- Read Task Activity From 1 Level Higher Role in Area
- Read data aggregation of FAD personal achievement *(Registered new farmer, Order product input, farm data, off-taking trx, visit activities, and order eFeeder)*
- Read data aggregation of Area of FAD achievement *(list + aggregation of FAD achievement in area)*
- Read data aggregation of other FAD personal achievement

- Read data aggregation of Area Manager personal achievement *(list + aggregation of Area Manager's FADs achievement)*
- Read data aggregation of other Area Manager personal achievement
- Read data aggregation of Area of Area Manager achievement *(list + aggregation of Area Manager achievement in area)*
- Read data aggregation of Regional Manager personal achievement *(list + aggregation of Regional Manager's AM achievement)*
- Read data aggregation of Area of Regional Manager achievement *(list + aggregation of Regional Managers achievement in area)*
- Read data aggregation of other Regional Manager personal achievement
- Aggregation for upstream performance
- Read data aggregation of personal KAM achievement
- Read data aggregation of other KAM achievement
- Create gather farm data
- Create visit activities (based on RMP)
- Create off-taking trx (Product Ouput) *tentatively
- Create Order eFeeder *tentatively
- Create Task Activity From 1 Level Lower Role in Area
- Update gather farm data
- Update off-taking trx (Product Ouput) *tentatively
- Update visit activities (based on RMP)
- Update order eFeeder *tentatively
- Update Task Activity From 1 Level Lower Role in Area
- Delete Task Activity From 1 Level Lower Role in Area

RBAC (Role Base Access Control)

Feature	FAD	AM	RM	UA	KAM
Create gather farm data	YES	YES	NO	NO	NO
Create visit activities (based on RMP)	YES	YES	NO	NO	NO

Feature	FAD	AM	RM	UA	KAM
Create off-taking trx (Product Ouput) *tentatively	YES	YES	NO	NO	YES
Create Order eFeeder *tentatively	YES	YES	NO	NO	NO
Create Task Activity From 1 Level Lower Role in Area	NO	YES	YES	NO	NO
Update gather farm data	YES	YES	NO	NO	NO
Update visit activities (based on RMP)	YES	YES	NO	NO	NO
Update off-taking trx (Product Ouput) *tentatively	YES	YES	NO	NO	YES
Update order eFeeder *tentatively	YES	YES	NO	NO	NO
Update Task Activity From 1 Level Lower Role in Area	NO	YES	YES	NO	NO
Delete Task Activity From 1 Level Lower Role in Area	NO	YES	YES	NO	NO
Read Task Activity From 1 Level Higher Role in Area	YES	YES	NO	NO	NO

Feature	FAD	AM	RM	UA	KAM
Read data aggregation of FAD personal achievement *(Registered new farmer, Order product input, farm data, off-taking trx, visit activities, and order eFeeder)*	YES	YES	YES	YES	NO
Read data aggregation of Area of FAD achievement *(list + aggregation of FAD achievement in area)*	YES	YES	YES	YES	NO
Read data aggregation of other FAD personal achievement	YES	YES	YES	YES	NO
Read data aggregation of Area Manager personal achievement *(list + aggregation of Area Manager's FADs achievement)*	NO	YES	YES	YES	NO

Feature	FAD	AM	RM	UA	KAM
Read data aggregation of Area of Area Manager achievement *(list + aggregation of Area Manager achievement in area)*	NO	YES	YES	YES	NO
Read data aggregation of other Area Manager personal achievement	NO	YES	YES	YES	NO
Read data aggregation of Regional Manager personal achievement *(list + aggregation of Regional Manager's AM achievement)*	NO	NO	YES	YES	NO
Read data aggregation of Area of Regional Manager achievement *(list + aggregation of Regional Managers achievement in area)*	NO	NO	YES	YES	NO
Read data aggregation of other Regional Manager personal achievement	NO	NO	YES	YES	NO

Feature	FAD	AM	RM	UA	KAM
Aggregation for upstream performance	NO	NO	NO	YES	NO
Read data aggregation of personal KAM achievement	NO	NO	NO	NO	YES
Read data aggregation of other KAM achievement	NO	NO	NO	NO	YES

Auth Sequence Diagram

```
sequenceDiagram
    participant FE as Dibalikudang
    participant EA as eFishery Auth Service
    FE->>EA: [GET] {SERVICE_AUTH}/google/login?redirect_url=api/auth/google/callback
    EA->>FE: [GET] {DIBALIK_UDANG}/login?code=<generated>
    FE->>EA: [POST] {SERVICE_AUTH}/google/verify
    EA-->>FE: Response Payload
    FE->>EA: [GET] {SERVICE_AUTH}/user/profile
    EA-->>FE: Response Payload
```

Mockup

- Figma

ERD

See the updated one here

```
erDiagram
    upstream_regions {
        id integer
        name string
        code string
    }
    upstream_regions ||--o{ upstream_region_areas: ""
    upstream_regions ||--o{ upstream_users: ""
    upstream_region_areas {
        id integer
        name string
```

```
        upstream_region_id integer
    }
    upstream_region_areas ||--o{ upstream_users: ""
    upstream_roles {
        id integer PK
        name string
    }
    upstream_roles ||--o{ upstream_users: ""
    upstream_users {
        id integer PK
        email string
        name string
        city_district string
        upstream_role_id integer FK
        upstream_region_id integer FK
        upstream_region_area_id integer FK
        created_at timestamp
        created_by string
        updated_at timestamp
        updated_by string
    }
```

upstream_regions

PK / FK	Column Name	Data Type	Note
PK	id	SMALLSERIAL	
	name	VARCHAR(30) DEFAULT ‘’ NOT NULL	
	region_code	VARCHAR(10) DEFAULT ‘’ NOT NULL	

upstream_region_areas

PK / FK	Column Name	Data Type	Note
PK	id	SMALLSERIAL	
	name	VARCHAR(30) DEFAULT ‘’ NOT NULL	
FK [upstream_regions(id)]	upstream_region_id	SMALLINT NOT NULL	

upsteram_roles

PK / FK	Column Name	Data Type	Note
PK	id	SMALLSERIAL	

PK / FK	Column Name	Data Type	Note
	name	VARCHAR(30) DEFAULT ‘’ NOT NULL	

upstream_users

PK / FK	Column Name	Data Type	Note
PK	id	SMALLSERIAL	
	name	VARCHAR(100) DEFAULT ‘’ NOT NULL	
	email	VARCHAR(40) DEFAULT ‘’ NOT NULL UNIQUE	
	city_district	VARCHAR(100) DEFAULT ‘’ NOT NULL	
FK [upstream_roles(id)]	upstream_role_id	SMALLINT NOT NULL	
FK [upstream_regions(id)]	upstream_region_id	SMALLINT DEFAULT NULL	
FK [upstream_region_areas(id)]	upstream_region_area_id	SMALLINT DEFAULT NULL	
	created_at	TIMESTAMP DEFAULT TIMESTAMP ‘epoch’ NOT NULL	
	created_by	VARCHAR(60) DEFAULT ‘’ NOT NULL	
	updated_at	TIMESTAMP DEFAULT TIMESTAMP ‘epoch’ NOT NULL	
	updated_by	VARCHAR(60) DEFAULT ‘’ NOT NULL	

ref:

- Field Ops Tools Login Authentication

Proof of Concept

Flutter vs React Native

Working with OneFish, eFishery Design System

.NET vs Go

Web First Approach

https://bitbucket.org/fikryfahrezy/fad-poc

API Contract

API Contract

4. Dependencies

> 💡 *Kalau ada kemungkinan dependensi ke sistem apa atau bikin dependensi untuk sistem apa.*

- Service auth

5. Milestone/Deployment Strategy

> 💡 *Ajuan cara adopsi, milestone development risetnya atau pemasangannya di production level atau saat implementasi riilnya.*

…

6. Data Result

> 💡 *Silakan isi dengan hasil data production-nya. Bisa diisi dengan Data Flow Diagram, Entity and Relationship Diagram, dan atau Data Model Documentation-nya.*

…

7. Drawbacks/Risks/Possible Failures

> 💡 *Kalau ada kemungkinan cons atau kekurangan dengan design ini, apa saja. Kemungkinan gagal dll-nya.*

…

8. Alternatives

> 💡 *Diluar ide ajuan ini ada apa lagi? Bisa masukkin RFC lain atau link services lain atau link artikel lain.*

- Sales Performance Monitoring
- Field Ops Experience Tools

Upstream User Management

9. Unresolved/Future Possibilities

> 💡 *Listing sesuatu yang masih abu-abu dan ga jelas, perlu riset lanjut, kemungkinan ke depannya.*

…

10. Archieve

Archieve