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ANALYSIS AND DESIGN

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1.0 Overview of the project

The cutting-edge Kanri Subscription Management App has been designed to simplify and improve the management of company subscriptions. Featuring its immediate accessibility and automated alerts, this software is made to make tiresome tasks like billing, data analysis, and subscription tracking easier. Collectively, these features lower expenses while enhancing the effectiveness of operations.

1.1 Key Features :

- **Centralized Dashboard :**
An easily accessible overview of billing cycles, renewal dates, and payment statuses is provided by a single interface that combines all subscription data.
- **Automated Alerts and Notifications:**
Real-time notifications to ensure immediate action and avoid consequences for failed payments, pricing changes, and subscription renewals.
- **Expense Monitoring and Budgeting Tools:**

Tools for tracking monthly spending, identifying ways to save costs, and managing funds as efficiently as possible.

- **Customizable Monitoring and Budgeting:**
Users can customize their budgeting and subscription tracking procedures using customizable tools according to their specific needs.
- **Integration Capabilities:**
A seamless connection with current accounting software, CRM platforms, and financial platforms to guarantee accurate information and increase workflow productivity.

1.2 Project Stages

1. **Research and Analysis:**
In the first stage, market analysis and research identifies customer requirements and market trends.
2. **Requirement Gathering:**
We are engaging with stakeholders to learn about specific requirements and desires for the application.
3. **Design and Prototyping:**
We are compiling prototypes and design layouts to see how the app will work and look.
4. **Development:**
We are creating and programming the features and functions of the program.
5. **Testing and Quality Assurance:**
Comprehensive testing to identify and address problems and ensure the application meets quality requirements.
6. **Integration:**
Making sure the app works effortlessly with current systems and sites used by companies.
7. **Documentation and Training:**
Providing users with complete documentation and instructional materials.
8. **Deployment:**
Launching the app and making it available to users.

1.3 Project Budget

The project budget includes a range of costs, such as labor, materials, software, and other additional expenses. This money is carefully distributed to ensure that every stage of the project has enough funding to achieve the intended outcomes.

1.4 Objectives

- **Increase Efficiency:**
Simplify subscription management processes by simplifying repetitive actions while offering immediate accessibility to save time and resources.
- **Reduce Costs:**
Adopt more affordable ways to minimize unnecessary expenses by updating your budgeting and tracking of expenses software.
- **Enhance Visibility:**
To increase accessibility and enable more accurate decision-making, offer real-time information and insights.
- **Improve Decision-Making:**
Provide customers with comprehensive tools for analysis so that they can make decisions on their subscription purchases with knowledge.
- **Enhance Customer Satisfaction:**
Deliver a trustworthy, user-friendly app that meets users' needs and expectations to increase acceptance and rate of satisfaction.
- **Drive Growth:**
By simplifying subscription management procedures, you may better manage funds and keep control of money while boosting company expansion.
- **Establish Market Leadership:**
With its innovative capabilities and outstanding efficiency, establishing the Kanri Subscription Management App is a market ruler.

2.0 Problem Statement

As the Kanri Subscription Management App progresses into the analysis and design phase, several critical challenges and considerations need to be addressed to ensure the effective translation of gathered requirements into a functional and user-friendly application. The problem statement for this phase focuses on the key design and analysis challenges identified during the initial stages and aims to outline the strategic approach required to address these challenges.

2.1 Key Challenges and Considerations:

1. Complexity in Designing a Centralized Dashboard:

The primary feature of the Kanri Subscription Management App is a strengthened interface that displays all subscriptions at the present moment. It is quite challenging to design a dashboard that is user-friendly, easy to understand, and able to process huge amounts of data without compromising effectiveness.

2. Guaranteeing Dependable Automated Notifications and Messages:

Accuracy and reliability must be guaranteed in the design of the automated alerts and notifications system. The challenge is in developing a system that can manage many scenarios—missed payments, approaching renewals, and price adjustments—while reducing inaccurate results and ensuring that customers receive accurate and helpful alerts.

3. Developing Comprehensive Expense Monitoring and Budgeting Tools:

A comprehensive data analysis framework is required to provide effective budgeting and expense-tracking solutions that offer in-depth insights into subscription spending patterns. Customizable reports and visualizations that help customers make valid decisions must be supported by the design.

4. Customizable Data Analysis Features:

Providing customers with adjustable tools for analyzing data involves developing a flexible framework that lets them specify key performance indicators (KPIs), generate customized reports, and pull important details from subscription data. Making sure these features are both strong and simple to use is the challenging aspect.

5. Seamless Integration with Existing Systems:

The app must easily interact with a range of accounting applications, customer relationship management programs, and financial platforms. A hard task involving careful planning and execution is ensuring compatibility, minimal interruption to existing procedures, and efficient data sharing.

6. Ensuring High Security and Compliance:

Since the app manages sensitive financial and subscription data, it is essential to put strong security measures in place. To safeguard user data from breaches and ensure legality, the design must include encryption of information, secure authentication, frequent security inspections, and following the relevant laws.

7. User-Friendly Interface Design:

It is essential to provide a user interface that is both easily understood and accessible to a wide range of users, such as end users, financial professionals, and subscription managers. The goal of the interface should be to enhance overall user satisfaction, reduce learning curves, and promote simplicity of use.

3.0 Proposed Solution

The Kanri Subscription Management App provides the following comprehensive solutions to effectively address the subscription management issues found during the analysis process. These solutions address important design and analysis aspects while concentrating on transforming user needs into functional and user-friendly features.

3.1 Centralized Management Dashboard

Solution:

Provide a strengthened dashboard that shows all of the active subscribers in real time. A single view of all subscription information, such as billing cycles, renewal dates, and payment status, will be provided by this dashboard.

Design Considerations:

- **User-Friendly Interface:** Develop a simple, easy-to-navigate design that puts the user's experience first.
- **Data Visualization:** Use charts, graphs, and other visual tools to present data clearly and effectively.
- **Scalability:** Ensure that there won't be any performance deterioration while the dashboard processes a lot of data.

3.2 Automated Alerts and Notifications

Solution:

Provide an accurate notification system that will automatically notify users of upcoming renewals, overdue payments, and pricing adjustments.

Design Considerations:

- **Reliability:** Create systems that ensure the speed and accuracy of notifications.
- **Customization:** Allow users to customize alert settings according to their preferences and needs.
- **Redundancy:** To guarantee delivery, include backup notification methods (such as email and SMS).

3.3 Expense Monitoring and Budgeting Tools

Solution:

Provide users access to comprehensive budgeting and spending tracking tools that provide in-depth analysis of subscription spending patterns.

Design Considerations:

- **Customizable Reports:** Provide users the capacity to create customized reports and visualizations.
- **Data Analysis:** Include features for advanced data analysis that can help users in finding ways to cut costs and spend funds as effectively as possible.
- **User Interface:** Ensure that the products are simple to operate and understand so that users with a range of financial understanding can benefit from them.

3.4 Customizable Data Analysis Features

Solution:

Provide a flexible framework for data analysis so that users may set KPIs, create customized reports, and access vital details from subscription data.

Design Considerations:

- **Flexibility:** Provide a wide range of options for users to customize their data analysis.
- **User-Friendly Design:** Ensure that the analysis tools are easy to use and do not require a lot of technical knowledge.
- **Performance:** Optimize the framework to handle large datasets efficiently.

3.5 Seamless Integration with Existing Systems

Solution:

Ensure that the app works flawlessly with different banking platforms, customer relationship management apps, and accounting apps.

Design Considerations:

- **Compatibility:** Ensure that all commonly used systems are fully compatible.
- **Minimal Disruption:** Design the connection process to minimize interruption to existing workflows.
- **Data Accuracy:** Include solid information syncing procedures in place to protect against errors and guarantee data integrity.

3.6 Enhanced Security and Compliance

Solution:

Include strong safety precautions in effect to protect personal financial and subscription information while conforming to the relevant laws.

Design Considerations:

- **Data Encryption:** Use advanced encryption techniques to secure data both in transit and at rest.
- **Secure Authentication:** Implement multi-factor authentication (MFA) to enhance user account security.
- **Regular Audits:** Regularly conduct fixes and safety inspections to fix flaws.
- **Regulatory Compliance:** Ensure the app adheres to relevant legal and regulatory standards, such as GDPR and CCPA.

3.7 User-Friendly Interface Design

Solution:

Create a straightforward UI that minimizes learning curves, increases usability, and improves overall user satisfaction.

Design Considerations:

- **Accessibility:** Ensure that individuals with different technical skills and abilities can use the UI.
- **Consistency:** Maintain a consistent design language throughout the app to improve usability.
- **Feedback Mechanisms:** Include systems for collecting user feedback so that the interface can be improved over time.

4.0 Current Business Process/Workflow

In the analysis and design phase of the Kanri Subscription Management App, understanding and documenting the current business processes and workflows is crucial. The subsequent part explains the current subscription management processes, analyses ineffectiveness, and sets the framework for building improved workflows.

4.1 Tracking Subscriptions

Current Process:

Organizations usually track their subscriptions using several platforms and methods, including spreadsheets, emails, and different software solutions. This results in fragmented data and inefficiencies.

Issues Identified:

- Data fragmentation: Subscription information is spread across multiple sources.
- Manual Entry: Implementing manual data entry increases the risk of mistakes and inaccuracies.
- Missed Renewals: Without automatic reminders, companies frequently forget renewal dates, resulting in service interruptions.

Proposed Workflow:

- Centralized Dashboard: Merge all subscription information into a single, centralized dashboard.
- Automated Alerts: Set up automatic notifications for renewals and other important deadlines.
- Real-Time Updates: Ensure that subscription information is updated in real-time, minimizing the need for human intervention.

4.2 Billing Management

Current Process:

Subscription billing and tracking are frequently performed separately, implementing different accounting software and methods. This division might lead to inaccuracies and delays in payment processing.

Issues Identified:

- Disjointed Systems: Billing and subscription tracking are not connected, resulting in inefficiencies.
- Payment Delays: Manual billing processes might cause delays and failed payments.
- Reconciliation Challenges: Finance teams struggle to coordinate subscription invoices with actual usage and payments.

Proposed Workflow:

- Integrated Billing System: To enhance efficiency, link billing administration with the subscription tracking system.
- Automated invoicing: Generate and issue bills based on subscription data.
- Seamless Reconciliation: Implement features that allow for easy verification of invoices with payments and usage data.

4.3 Data Analysis

Current Process:

Data analysis for subscriptions is typically handled manually, with teams combining data from multiple sources into reports. This technique is time-consuming and prone to mistakes.

Issues Identified:

- Manual Reporting: Manually creating reports is ineffective and prone to inaccuracy.
- Limited Insights: The lack of broad analytic tools leads to limited insights about subscription usage and expenses.
- Inconsistent Data: Reports that use different data sources are inconsistent and unreliable.

Proposed Workflow:

- Automated Data Analysis: Set up tools to automatically evaluate subscription data and provide reports.
- Customizable Reports: Users may customize reports to meet their individual needs and preferences.
- Data Visualization: Use advanced visualization techniques to communicate data understandably.

4.4 Expense Monitoring and Budgeting

Current Process:

Expense monitoring and budgeting for subscriptions are frequently handled independently, with no single solution to provide comprehensive insights into spending patterns and the distribution of funds.

Issues Identified:

- Fragmented Expense Tracking: Expenses are monitored across numerous platforms, making it impossible to gain an accurate picture.
- Budget Overruns: Without effective monitoring, businesses frequently overspend their budgets.
- Inefficient Allocation: A lack of deep understanding prevents the ideal allocation of costs.

Proposed Workflow:

- Unified spending Monitoring: Combine spending tracking and subscription management to provide an in-depth look.
- Budgeting Tools: Implement tools that enable users to create budgets and track spending in real time.
- Spending Insights: Provide users with extensive knowledge of their spending patterns to assist them in identifying cost-saving opportunities.

4.5 Integration with Existing Systems

Current Process:

Numerous companies employ a combination of financial, customer relationship management (CRM), and accounting systems that do not work easily with their subscription management processes. This creates data compartments and requires manual data entry.

Issues Identified:

- Data Silos: A lack of coordination leads to separate areas of data.
- Manual Entry: Manual data entry between systems raises the likelihood of errors.
- Workflow Disruption: Problems with integration disrupt current workflows and processes.

Proposed Workflow:

- Seamless Integration: Make sure the software works flawlessly with your current financial, CRM, and accounting systems.
- Automated Data Sync: Use automated data synchronization to eliminate manual data entering.
- Minimal disturbance: Create integration processes that cause minimal disturbance to existing activities.

4.6 Security and Compliance

Current Process:

Safety and regulatory security measures for subscription data differ greatly amongst firms, with some depending on basic security methods that may be insufficient.

Issues Identified:

- Inconsistent security: Different levels of protection may reveal sensitive data.
- Compliance Risks: The absence of consistent regulation enforcement measures increases the risk of regulatory offenses.
- Data Breaches: Poor security practices can result in data breaches and the loss of sensitive information.

Proposed Workflow:

- Robust Security Protocols: Use advanced security measures such as data encryption along with secure identification.
- Regular Audits: Conduct regular security inspections and updates to ensure that high-security standards are met.
- Compliance Monitoring: Ensure that every relevant law and standards are followed on a regular schedule.

5.0 Logical DFD (AS-IS)

A Logical Data Flow Diagram (DFD) illustrates the existing (AS-IS) system processes, data flows, and data stores in the Kanri Subscription Management App. This DFD focuses on high-level data processes and interactions among multiple entities, demonstrating how data flows across the current system.

5.1 Key Elements of the Logical DFD

5.1.1 External Entities

Represent entities outside the system that interact with the system.

- User: Individuals or organizations managing subscriptions.
- Accounting System: External financial systems used for billing and invoicing.
- CRM System: External customer relationship management systems.

5.1.2 Processes

Represent the activities or functions where data is processed.

- Track Subscriptions: Process for tracking subscription details.
- Manage Billing: Process for handling billing and invoicing.
- Generate Reports: Process for compiling and generating reports.
- Monitor Expenses: Process for monitoring and budgeting expenses.
- Data Integration: Process for integrating data with external systems.
- Ensure Security and Compliance: Process for maintaining security and compliance.

5.1.3 Data Stores

Represent places where data is stored within the system.

- Subscription Data Store (D1): Repository for all subscription details.
- Billing Data Store (D2): Repository for billing and payment information.

- Reporting Data Store (D3): Repository for generated reports and analysis.
- Expense Data Store (D4): Repository for expense tracking and budgeting data.

5.1.4 Data Flows

Represent the movement of data between entities, processes, and data stores.

5.2 Logical DFD (AS-IS)

Below is the description of the Logical DFD for the current system:

5.2.1 External Entities and Data Flows

1. User:
 - Provides subscription details to the Track Subscriptions process.
 - Receives subscription information and updates.
 - Receives billing information from the Manage Billing process.
 - Requests and receives reports from the Generate Reports process.
 - Provides and receives expense information to/from the Monitor Expenses process.
2. Accounting System:
 - Exchanges billing and payment data with the Manage Billing process.
3. CRM System:
 - Shares customer-related data with the Data Integration process.

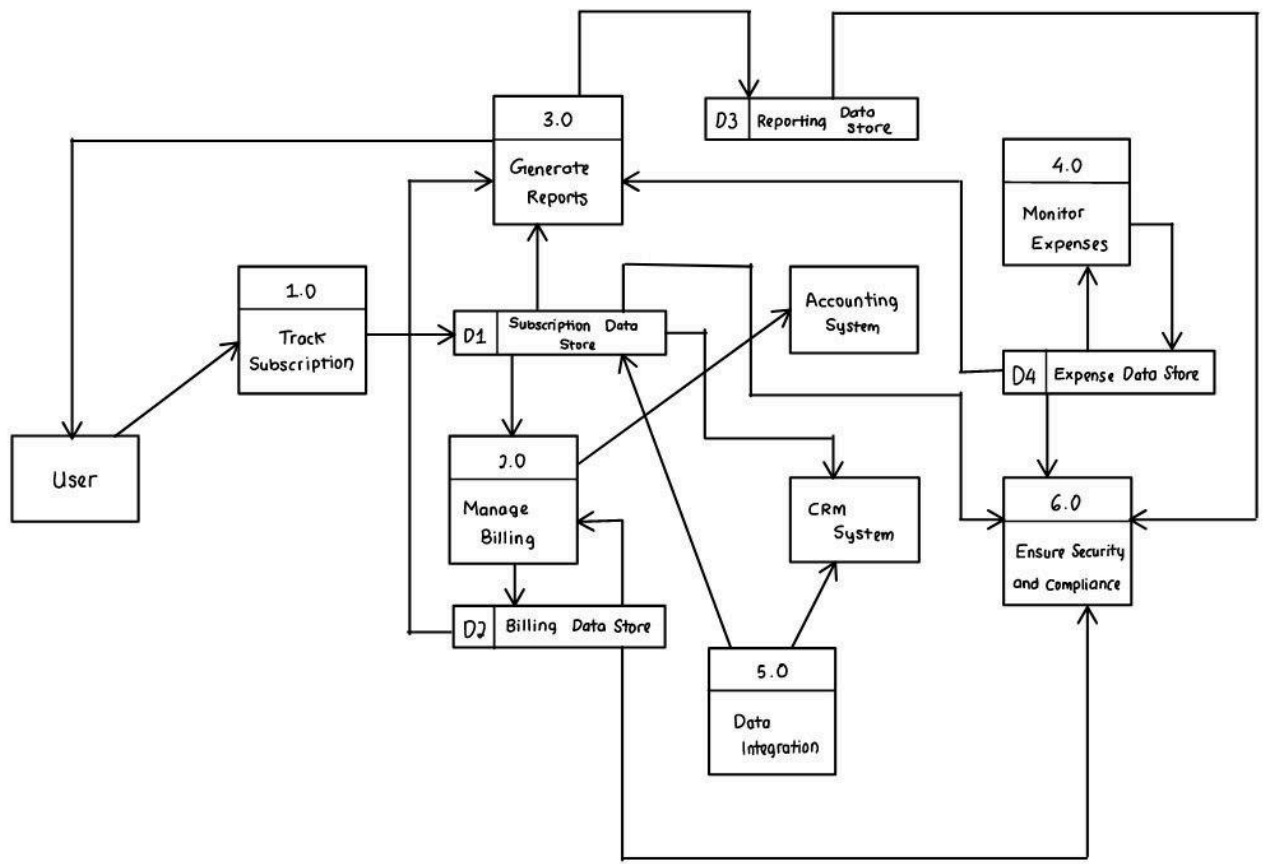
5.2.2 Processes and Data Flows

1. Track Subscriptions:
 - Receives subscription details from the User.
 - Stores subscription data in the Subscription Data Store.
 - Provides subscription updates to the User.
2. Manage Billing:
 - Retrieves subscription data from the Subscription Data Store.
 - Sends billing information to the User.
 - Exchanges billing data with the Accounting System.
 - Stores billing and payment information in the Billing Data Store.

3. Generate Reports:
 - Retrieves data from the Subscription Data Store, Billing Data Store, and Expense Data Store.
 - Generates and sends reports to the User.
 - Stores generated reports in the Reporting Data Store.
4. Monitor Expenses:
 - Receives and processes expense data from the User.
 - Stores expense data in the Expense Data Store.
 - Provides expense insights and budgeting information to the User.
5. Data Integration:
 - Integrates data between the Subscription Data Store and external systems like the CRM System.
 - Ensures data consistency and updates across integrated systems.
6. Ensure Security and Compliance:
 - Implements security measures and compliance checks across all data stores and processes.
 - Monitors and ensures data security and regulatory compliance.

5.2.3 Data Stores

1. Subscription Data Store (D1): Stores all subscription-related data.
2. Billing Data Store (D2): Stores all billing and payment information.
3. Reporting Data Store (D3): Stores generated reports and analytical data.
4. Expense Data Store (D4): Stores expense tracking and budgeting data.



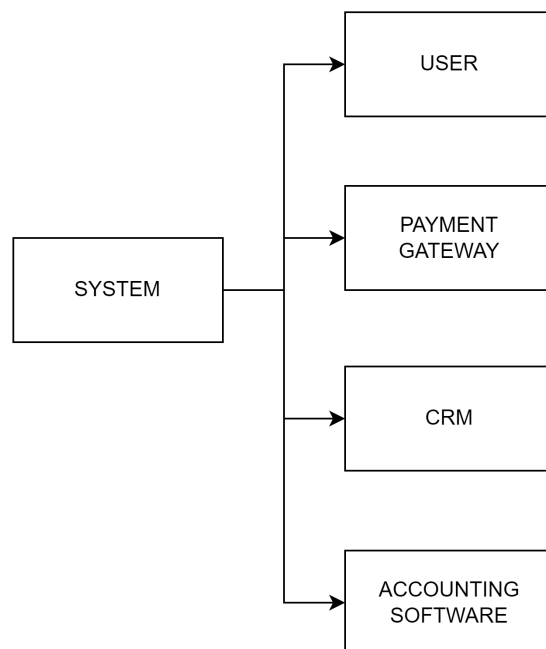
6.0 System Analysis and Specification

6.1 Logical DFD TO-BE system (Context Diagram, Diagram 0, Child)

The TO-BE Logical Data Flow Diagrams (DFDs) deliver a high-level and comprehensive perspective of the Kanri Subscription Management App's future state.

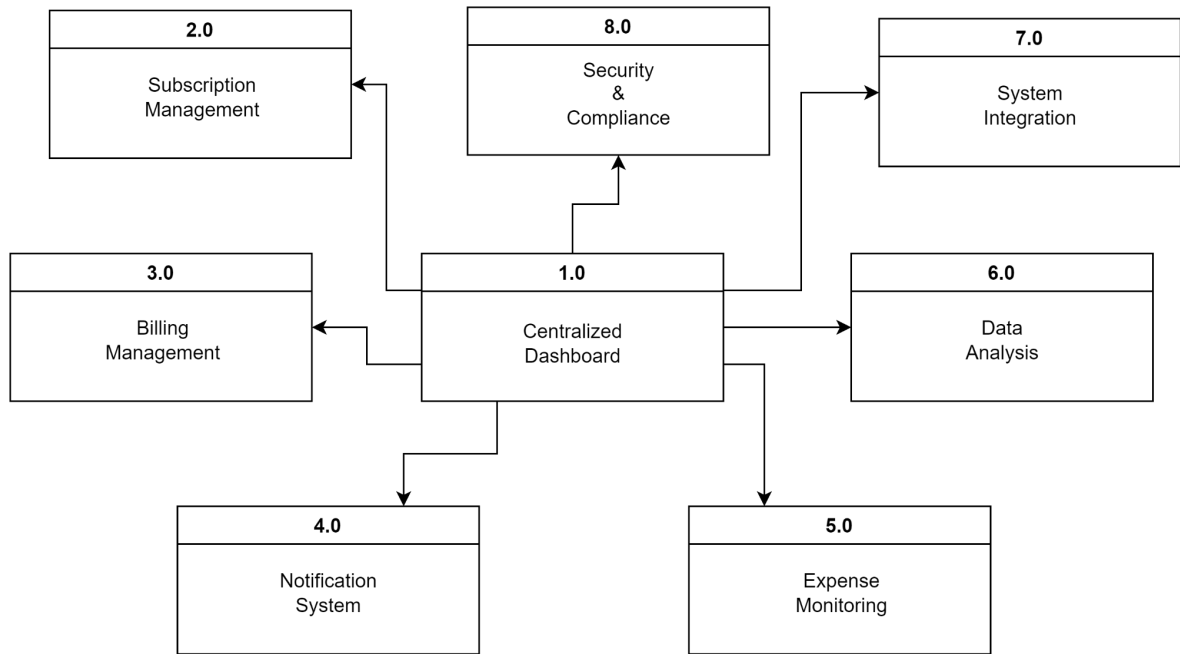
6.1.1 Context Diagram

The diagram below shows an overview of the system, showing how it interacts with external entities such as users, payment gateways, and third-party integrations. It identifies how information moves between the system and these external entities.

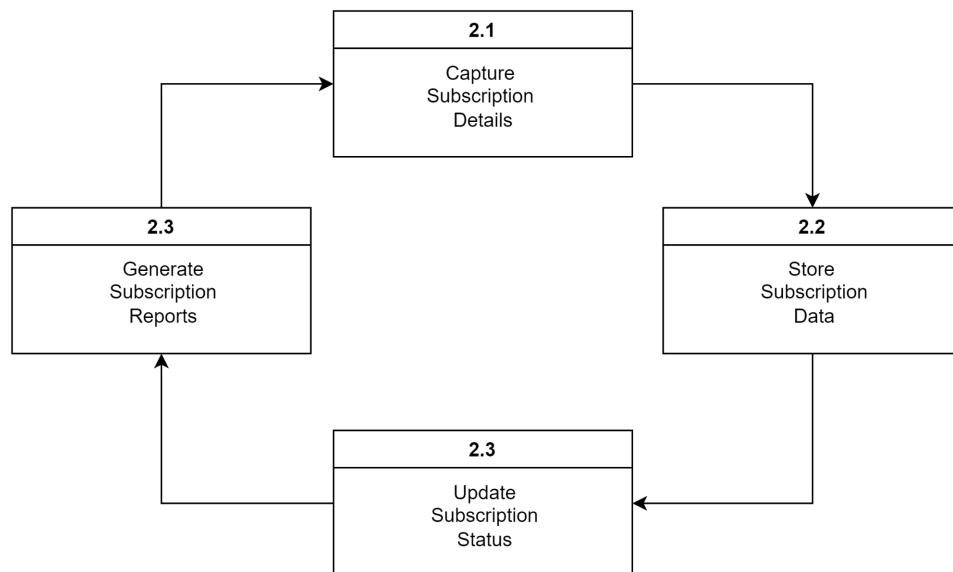


6.1.2 Diagram 0

This divides up the context diagram into major operations, data stores, and data flows inside the system. Diagram 0 shows each process as a system's essential function.



6.1.3 Child Diagram (for subscription data)



6.2 Process Specification (Based on Logical DFD TO-BE)

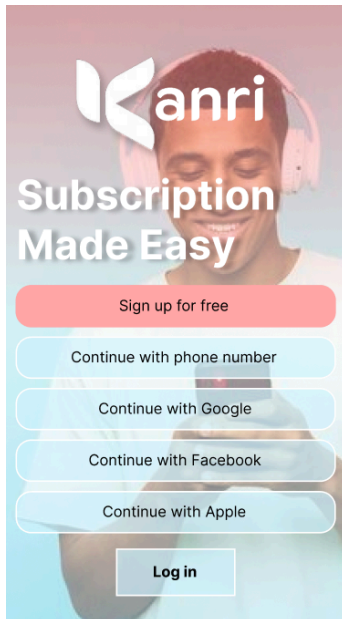
Each process identified in the TO-BE Logical DFDs requires detailed specifications. These specifications include the following components:

Process ID & Name	Description	Inputs	Outputs	Preconditions	Postconditions
1.0 Centralized Dashboard	The main interface for users to access and manage subscription-related activities.	User login credentials, subscription data, billing data, notification data, and expense data.	Display of subscription statistics, alerts for pending renewals, updates on billing status, notifications, and expense reports.	The user must be logged in and have the necessary permissions.	The dashboard is updated with the latest data; users can view and manage subscriptions.
2.0 Subscription Management	Manages subscription lifecycle: capturing details, storing data, updating statuses, and generating reports.	User input (subscription details), and subscription data from the database.	Confirmation of subscription creation, updated subscription records, and subscription reports.	Users must have permission to manage subscriptions.	New subscriptions are added, existing subscriptions are updated, and reports are generated.
2.1 Capture Subscription Details	Collects and validates new subscription details entered by the user.	User input (name, email, subscription type, start date, end date).	Validated subscription details.	Users must be logged in and have permission to add subscriptions.	Subscription details are validated and ready for storage.
2.2 Store Subscription Data	Saves validated subscription details into the database.	Validated subscription details.	Confirmation of successful data storage, and updated subscription database.	Subscription details must be validated.	Subscription data is securely stored in the database.
2.3 Update Subscription Status	Updates the status of existing subscriptions based on triggers like renewals or cancellations.	Subscription ID, new status, trigger information.	Updated subscription status, and confirmation message.	Valid subscription ID and status update trigger.	Subscription status is updated in the database.

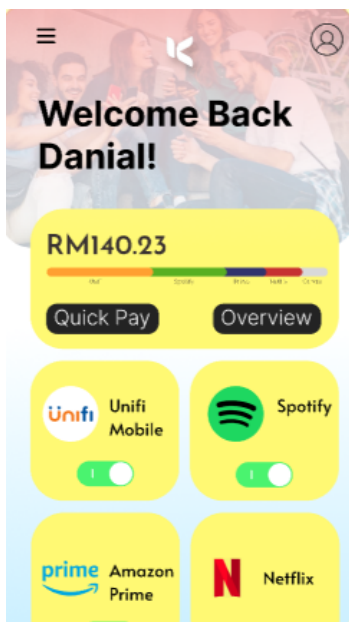
2.4 Generate Subscription Reports	Creates comprehensive reports on subscription data for analysis and decision-making.	Subscription data, report parameters (e.g., date range, subscription type).	Subscription reports in various formats (e.g., PDF, Excel).	Valid report parameters, and user permissions to generate reports.	Reports are generated and available for download or viewing
3.0 Billing Management	Manages billing and payment processes: generating invoices and processing payments.	Subscription data, and payment details.	Invoices, payment confirmations, billing status updates.	Valid subscription and payment details.	Invoices are generated, payments processed, and billing status is updated.
4.0 Notification System	Manages the sending of notifications and alerts to users regarding their subscriptions.	User preferences, and subscription status changes.	Email, SMS, or push notifications.	Valid user preferences and subscription status changes.	Notifications are sent successfully to users.
5.0 Expense Monitoring	Tracks and analyzes subscription-related expenses to provide insights on spending.	Billing data, payment confirmations.	Expense reports, spending trends.	Valid billing and payment data.	Expense data is analyzed, and reports are generated.
6.0 Data Analysis	Analyzes subscription data to provide insights and support decision-making.	Subscription data, user queries.	Data analysis results, insights, and reports.	Valid subscription data and user queries.	Analysis results are generated and available for review.
7.0 System Integration	Manages integration with other systems like CRM and accounting software.	Data from CRM, accounting software.	Integrated data, synchronization status.	Valid integration setup and credentials.	Data is synchronized across systems.
8.0 Security and Compliance	Ensures the system meets security and compliance requirements.	Security policies, and compliance regulations.	Security status reports, and compliance certifications.	Valid security policies and compliance standards.	The system is secure and compliant with regulations.

8.0 System Wireframe

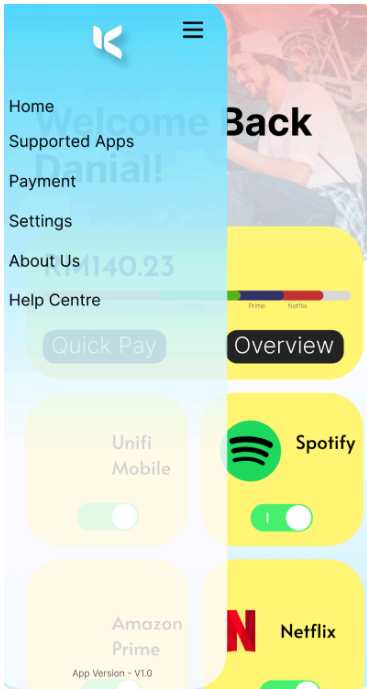
Login Screen



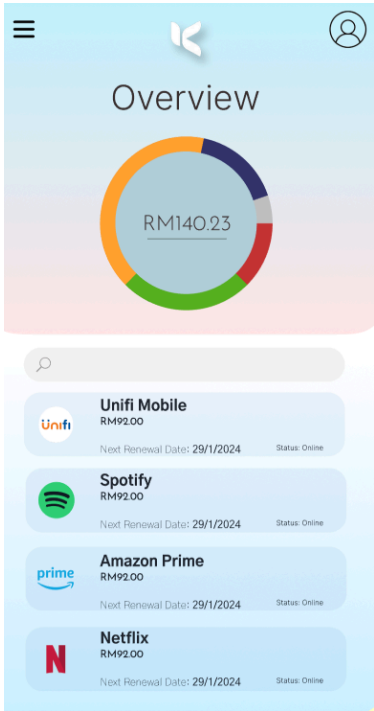
Home Screen



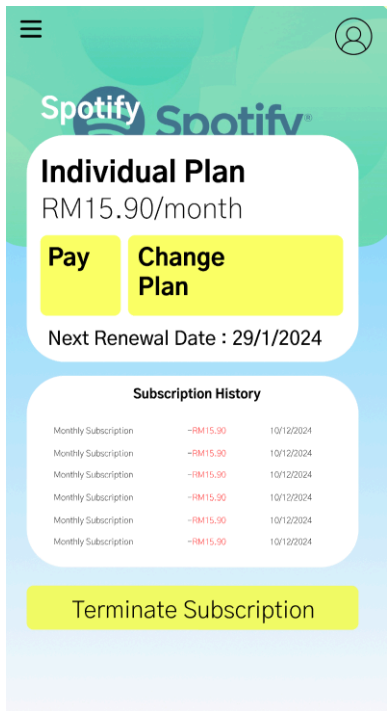
Sidebar



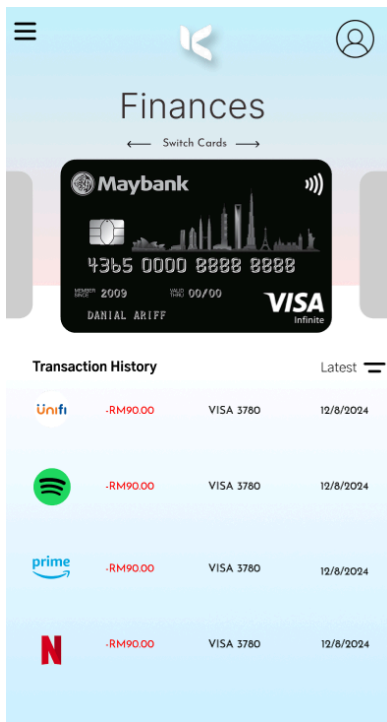
Overview Screen



Individual Plan Management



Finance Management



Help Centre



Help Centre

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Security And Privacy

9.0 Summary of the Proposal System

The proposed Kanri Subscription Management App provides a comprehensive solution for managing business subscriptions. Key features include a centralized management dashboard, auto-generated alerts and notifications, enhanced expense monitoring and budgeting capabilities, flexible analysis of data, seamless connection with current systems, improved safety and legal compliance, and an easy-to-use interface. The suggested solution aims to increase efficiency, decrease costs, improve accessibility, make better decisions, improve customer satisfaction, drive growth, and build market dominance by addressing the difficulties stated in the problem statement.