OPERATING LEASE SUPPORT SYSTEM DEVELOPMENT

FOR

DIPO STAR FINANCE
Solusi Kredit Otomotif Terpercaya

Functional Specification
A.3 Collection Module

Revision 2.0

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Document Approval

By signing this document I acknowledge I have read the document and give the Project Management Team approval to proceed.

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1 Introduction

1.1 Purpose

Functional specification is to explain some of the following:
1) Describe who uses your application or system,
2) Describe the order in which steps or events or on the scenario are performed,
3) Show user interface design, and
4) What kind of data that will be maintained by functions.

1.2 Scope

Marketing module described about how to maintain data transaction on the marketing process which is utilized by functions in the system. On this module there's no integration with another system (such as ACA and MFAPPL). This modules deal in the "to-be design" for developing the new system.

To keep the accuracy of entire design of the system we are using modeling approach for design and analysis. **_To define a model of functions we will determine use cases. In the use case, it can summarize who uses your application or system, and what they can do with it._**

Within a use case we can determine which use cases are supported by application. We can create use case diagram, activity diagram, use case scenario, data structure, and interface design.

A data structure can be specified what kind of information that will be required for the system. Data structure is represented database design of the system. A user interface design can imagine the user about the system as visual. User interface is designed based on prototypes which have been already created. And, based on these things, we will develop the system.

The following is functionality of collection module:
✓ Billing Payment History Inquiry

   a. Add new billing and payment history records
      To input a new billing and payment history records by fill out the form. This feature allows a user to save a data into database, after input on the billing and payment history record form.
   b. Update details billing and payment history records
      To update a detail billing and payment history records by fill out the details form. This feature allows a user to changes any data, and then saves into database.
   c. Filter and sort agreement information
      On this feature the record can be filtered and sorted based on columns on top of the list.
   d. Validate billing and payment history records
      After the records was confirm, the record can be to validate.
   e. Set to draft billing and payment history records
      If the data still need to be update by user who initiate to create the agreement, the records can be set to draft.

1.3 Acronyms and abbreviations

➢ ACA   : Auto Credit Approval System

➢ MFAPPL : Multi Finance Application

1.4 References

This functional scope refers "to be design" in the section A.1.Marketing Module.

2 Detail Specification

2.1 Billing and Payment History Inquiry

2.1.1 Use case

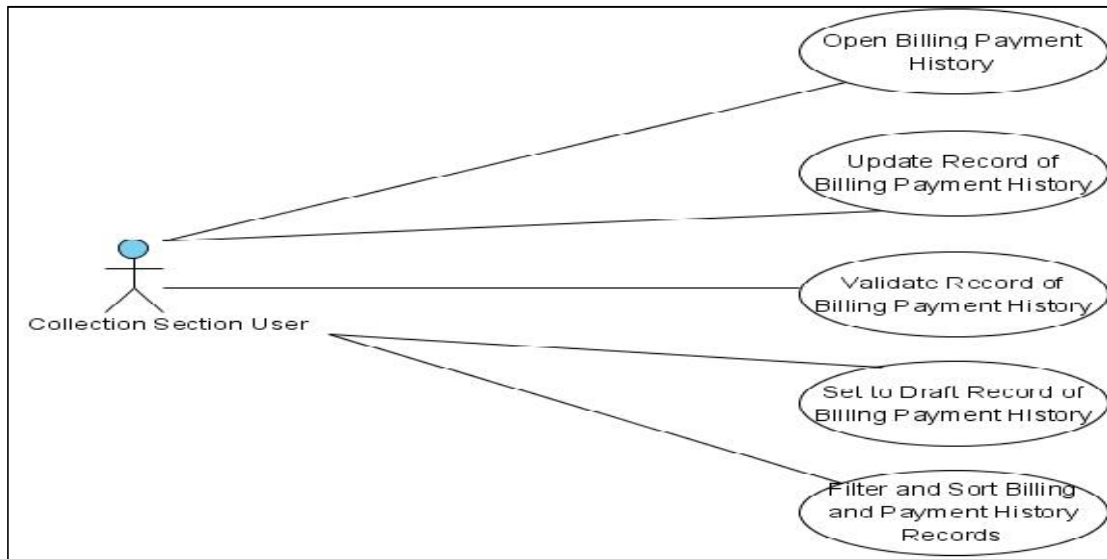The figure below is summarizing who uses features of function, and what they can do with it.

Figure 1 – Use case diagram of Billing and Payment History Inquiry

2.1.2 Operations and scenarios

The figure below is describing operations or steps performed in a function interact with people (flow of work between actors and the system).
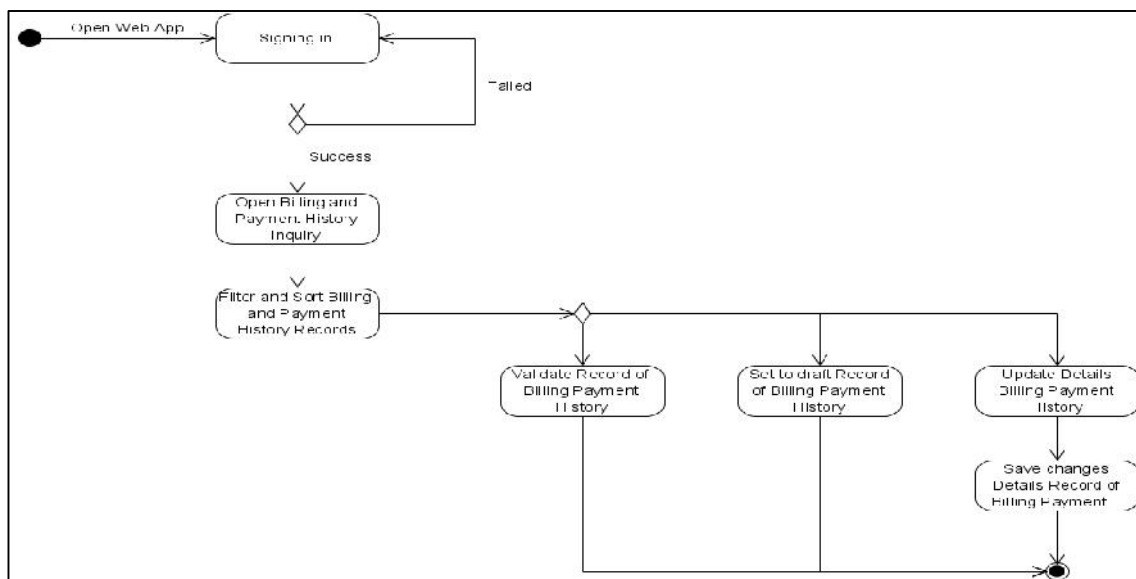

Figure 2 – Activity diagram of Billing and payment history Inquiry

No.	Steps/ Operations	Actor/ People	Scenario
1	Signing in	Collection Section User	• Actor fills out sign in form by inputting user name and password. • Actor clicks [sign in] button. System will check the account of user; if user account is already registered user will enter into the system. If doesn't user can return the step.
2.	Open billing and payment history inquiry module	Collection Section User	• After login, actor can open billing and payment history inquiry module on the menu of system. After that, the screen of billing and payment history inquiry will open.
3.	Filter and sort billing and payment history records	Collection Section User	• Actor can filter and sort the record based on columns where displayed on the list. • To filter the records, actor can enter keywords into the filter fields. If matched data founds, the filtered result will be displayed on list. If doesn't the list will be empty. • To sort the records, actor can click header of column on the list table. After that the records will be sorted by ascending or descending, alternately. • Upon select [record number filter] drop down list, actor can select a records number to display on the list. At least only one item can be selected.
4.	Update billing and payment history record	Collection Section User	• If billing and payment history screen opens, actor can determined the agreement number and police number that want to be display in the billing and payment history. • Upon clicking […] button on the agreement number fields, the agreement look-up screen will be displayed. Agreement number can be selected (only one record can be select). After it's done, agreement information field will be filled automatically. • After determining agreement number, user can click [Details] button to edit the details of billing and payment history record. Once it done, 'Details' screen will be displayed. • If 'Details' screen opens, actor can edit a record by inputting a data on each of the fields. • The mandatory fields cannot be blank.
5.	Validate billing and payment history record	Collection Section User	• Once data is saved and data has been confirmed, actor can validate the record by clicking [Validate] button. • After that system will set a record as **validate (or not draft).** • If done, actor can click back button to return to the list of billing and payment history.
6.	Set to draft of calculation	Collection Section User	• To do this process, actor should open calculation detail screen by clicking [Details] button on the list. Once it open, actor can set to draft by clicking [set to draft] button. If the records still need to revise and status still

			not valid yet, actor can change the calculation status from **validated** to **draft**.
			• After that, system will proceed automatically to change the status, and actor can click [Back] button to return to the list.

2.1.3   Status management and roles

The figure below is describing a role matrix (including relation with Status) of actor that already identified in a function.

Role of Actor	Filter and sort	Save as draft	Save changes (draft)	validate	Validate
Maintenance user	Yes	Yes	Yes	Yes	Yes

The figure below is describing transition of Status that performed when people interact in a function. In this features, drafting process triggered on the agreement module. If service schedule already generated on the agreement module, so the status of service records will be draft too, and vice versa.
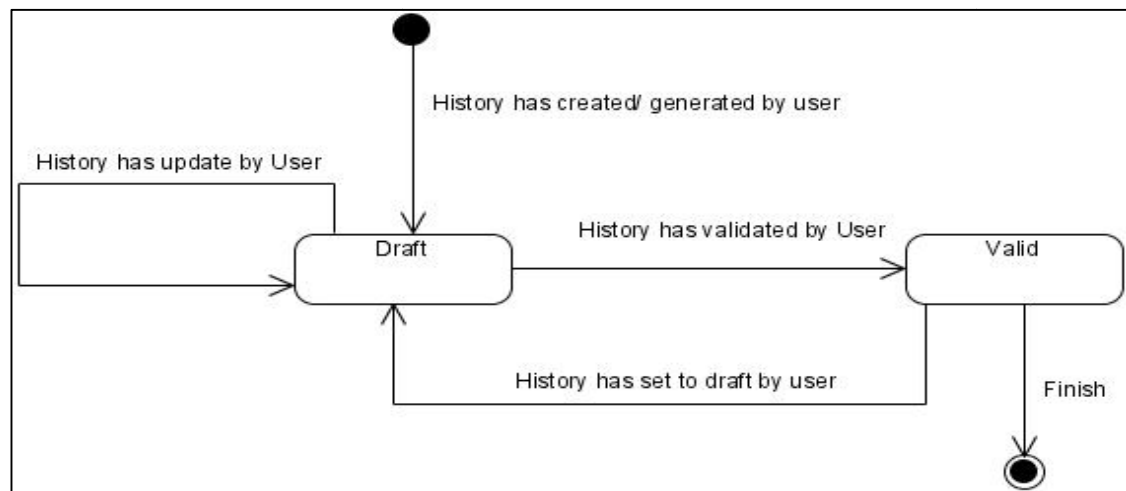

Figure 3 – Status diagram of Calculation of Sales

2.1.4   Sitemap design

Describe a web page that lists the pages on a web site to users. Usually sitemap organized in hierarchical style.

Figure 4 – Sitemap design of Billing Payment History Inquiry

2.1.5   Screen design

2.1.5.1   Billing and payment history inquiry

This screen is designed to billing and payment history inquiry. On this screen actor can open service records. And also, actor can open another screen to add and/or update billing and payment history record.

Image 1 – Billing and Payment History Inquiry Screen

2.1.5.2 Update billing and payment history inquiry

This screen is designed to update the billing and payment history records. After changing some data on the screen, actor can store a data into the system by clicking the action button.

Image 2 – Screen of Update Details Billing Payment History Inquiry

2.1.6   Screen features

Features	Description
[Filter and sort]	To perform data filtering and data sorting of calculation records.
[Save as draft] or [Set to draft]	To save a record as a draft.
[Validate]	To validate a record as a final.
[Save changes]	To update changes when editing calculation record.

2.1.7   Data structure

Field	Data Type	Data Length	Format	Mandatory	DB Mapping
Contract Information					
Agreement Number	Varchar	50	N/A	*Yes*	OPLAgreement.AgreementNumber
Previous Agreement Number	Varchar	100	N/A	*No*	OPLAgreement.AgreementNumberReff
Agreement Date	Date	N/A	mm/dd/yyyy	*Yes*	OPLAgreement.AgreementDate
Billing and payment history Record					
Marketing Officer PIC Name	Varchar	200	N/A	*Yes*	OPLAgreement.PICFullName
Marketing Officer PIC Position	Varchar	50	N/A	*Yes*	OPLAgreement.PICPositionName
Marketing Officer PIC Phone	Varchar	50	N/A	*Yes*	OPLAgreement.PICTelephone
Marketing Officer PIC Email	Varchar	50	N/A	*No*	OPLAgreement.PICEmailAddress
Customer Name	Varchar	200	N/A	*Yes*	Customer.CustomerName
Product Brand Name	Varchar	100	N/A	*Yes*	Product.BrandName
Product Model Name	Varchar	100	N/A	*No*	Product.ModelName
Model Year	Date	N/A	Yyyy	*No*	Product.ModelYear
Lease Category	Varchar	100	N/A	*Yes*	OPLAgreement.LeaseCategory
Maintenance Type	Varchar	100	N/A	*Yes*	OPLAgreementDetails.MaintenanceType
Insurance	Bit	N/A	N/A	*Yes*	OPLAgreement.IsInsurance
Purchase Required	Bit	N/A	N/A	*Yes*	OPLAgreement.PurchaseAfterLease
Contract Start Date	Date	N/A	mm/dd/yyyy	*Yes*	OPLAgreement.StartPeriodDate

Contract Expired Date	Date	N/A	mm/dd/yyyy	*Yes*	OPLAgreement.EndPeriodDate
Lease Period	Int	N/A	N/A	*No*	OPLCalculation.LeasePeriodPlan
Usage	Varchar	100	N/A	*No*	OPLCalculation.Usage
Expectation Collection Amount	Decimal	18,0	###,###,###.##	*Yes*	OPLBillpayHistory.ExpectationCollectionAmount
Billing Total	Decimal	18,0	###,###,###.##	*Yes*	OPLBillpayHistory.BillingTotal
Breakdown Total	Decimal	18,0	###,###,###.##	*Yes*	*calculation result at runtime
Collection Amount	Decimal	18,0	###,###,###.##	*Yes*	OPLBillpayHistory.CollectionAmount
Overdue Amount	Decimal	18,0	###,###,###.##	*Yes*	*calculation result at runtime
Overdue PPN - PPh	Decimal	18,0	###,###,###.##	*Yes*	*calculation result at runtime
Expectation Penalty Collection Amount	Decimal	18,0	###,###,###.##	*Yes*	*calculation result at runtime
PenaltyCollectionAmount	Decimal	18,0	###,###,###.##	*Yes*	OPLBillpayHistory.PenaltyCollectionAmount
Overdue Penalty Amount	Decimal	18,0	###,###,###.##	*Yes*	*calculation result at runtime
Billing and payment history details					
Payment Transaction	Varchar	100	N/A	Yes	OPLBillPayHistoryDetails.PaymentTransactionType
First Due Date of Usage Unit	Date	N/A	mm-dd-yyyy	*No*	OPLAgreement.FDueDateUsage
First Due Date of Payment	Date	N/A	mm-dd-yyyy	*No*	OPLAgreement.FDDatePayment
Term of Payment	Int	N/A	N/A	*No*	OPLAgreement.TermOfPayment
Monthly Installment	Decimal	18,0	###,###,###.##	*Yes*	OPLAgreement.TotalMonthlyInstallment
Deposit Amount	Decimal	18,0	###,###,###.##	*No*	OPLAgreement.DepositAmount
Number of Payment	Decimal	18,0	###,###,###.##	*No*	OPLAgreement.NumberOfPayments
Deposit Payment Date	Date	N/A	mm/dd/yyyy	*No*	OPLAgreement.DepositPaymentDate
Deposit Return Date	Date	N/A	mm/dd/yyyy	*No*	OPLAgreement.DepositReturnDate
Breakdawn Special Contract	Bit	N/A	N/A	*No*	OPLAgreementDetails.BreakDawnC

Functional Specification: A.3 Collection Module

Project	Operating Lease Support System Development		
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					ontract
Issue of Invoice Date	Date	N/A	mm/dd/yyyy	No	OPLBillPayHistory Details.InvoiceIssueDate
Interest Penalty	Decimal	18,6	###,###,###.##	No	OPLAgreement.InterestOfPenalty
Payment Condition					
Payment Schedule	Date	N/A	mm/dd/yyyy	Yes	OPLBillPayHistory Details.PaymentSchedule
Collection Category	Varchar	100	N/A	Yes	*defined
Break Dawn Amount	Decimal	18,0	###,###,###.##	No	OPLBillPayHistory Details.BreakDawnAmount
Penalty Amount	Decimal	18,0	###,###,###.##	No	OPLBillPayHistory Details.PenaltyAmount
VAT Amount	Decimal	18,0	###,###,###.##	No	OPLBillPayHistory Details.VATAmount
PPH Amount	Decimal	18,0	###,###,###.##	No	OPLBillPayHistory Details.PPHAmount
Total Amount	Decimal	18,0	###,###,###.##	No	OPLBillPayHistory Details.BillAmount
Collection Date	Date	N/A	mm/dd/yyyy	No	OPLBillPayHistory Details.CollectionDate
Collection Amount	Numeric	N/A	N/A	No	OPLBillPayHistory Details.CollectionAmount
Audit Rail					
Create By	Text	100	N/A	Yes	CreateBy
Create Date	Date time	N/A	mm-dd-yyyy:hh-mm-ss	No	CreateDate
Last Modified By	Text	100	N/A	Yes	LastModifiedBy
Last Modified	Date	N/A	mm-dd-yyyy	No	LastModified
Status Management					
Is Deleted	Yes/No	N/A	N/A	Yes	IsDeleted
Is Draft	Yes/No	N/A	N/A	Yes	IsDraft
Is Submitted	Yes/No	N/A	N/A	Yes	IsSubmitted
Is Valid	Yes/No	N/A	N/A	Yes	IsValid

3 Appendix

3.1 Use Case Terminology

What is the use case?

(i) **_A use case is_** _a written description of how users will perform tasks on your website. It outlines, from a user's point of view, a system's behavior as it responds to a request. Each use case is represented as a sequence of simple steps, beginning with a user's goal and ending when that goal is fulfilled. (http://www.usability.gov/how-to-and-tools/methods/use-cases.html)_

(ii) **_A use case is_** _a list of steps, typically defining interactions between a role and a system. (http://en.wikipedia.org/wiki/Use_case)_

(i) **_A use case is_** _a formal way of representing how a business interacts with its environment. it summarized into a single picture. (http://romisatriawahono.net/lecture/sad/romi-sad-05-implementation-march2014.pptx)_

What are Benefits of use cases?

(i) **_Use cases_** _add value because they help explain how the system should behave and in the process, they also help brainstorm what could go wrong. They provide a list of goals and this list can be used to establish the cost and complexity of the system. Project teams can then negotiate which functions become requirements and are built._

What Use Cases Include	What Use Cases Do NOT Include
• Who is using the website • What the user want to do • The user's goal • The steps the user takes to accomplish a particular task • How the website should respond to an action	• Implementation-specific language • Details about the user interfaces or screens.

(http://www.usability.gov/how-to-and-tools/methods/use-cases.html)

(ii) _With the help of use case diagram, you can discuss and communicate:_

- _The scenarios in which your system or application interacts with people, organizations, or external systems._

- _The goals that it helps those actors achieve._

- _The scope of your system._

(http://msdn.microsoft.com/en-us/library/dd409432.aspx)