1. **System Implement & Test**
2. **Introduction**
   1. **Overview**

This section describes the approach and methodologies used by group to plan, organize and manage the testing of MIC system. It provides in the detail all necessary information about the implementation and testing procedure of the system included test plans, test cases, test result, test environments, pass/fail criteria and risks estimations as well as a checklist to cover all possible cases.

* 1. **Test approach**
* Goal: Test all features in the whole MIC system based on the core flow.
* Method: white-box testing, black-box testing
* Technique: check list

The testing for this project will consists of Integration System test level. Testing the program which was integrated and as a complete system to ensure that the software requirements have been met.

* Integration testing will be performed by all member of team and approved by team leader.
* System testing is focused on assessing the system’s reliability. This process is concerned with finding errors that result from unanticipated interactions between components and component interface problems.

1. **Introduction**
   1. **Physical Diagram**
   2. **Data Dictionary**

|  |  |
| --- | --- |
| **Data dictionary: describe content of all tables** | |
| **Table Name** | **Description** |
| increments | Support generates codes with prefixes sequentially. |
| mic\_business\_rules | Describe all configuration based on company’s business rules. |
| mic\_contract\_type | Describe all contract type in the system. |
| mic\_contract | Describe all contract detail information in the system. |
| mic\_accident | Describe all accident information belongs to contract in the system. |
| mic\_compensation | Describe all compensation detailed information belongs to contract in the system. |
| mic\_punishment | Describe all punishment information belongs to contract in the system. |
| mic\_card | Describe all card which have been issued in the system. |
| mic\_card\_access\_log | Describe all history access to card. |
| mic\_new\_card\_request | Describe all new card request in the system. |
| mic\_customer | Describe all customer profile available in the system. |
| mic\_notification | Describe all notification detail in the system. |
| mic\_notification\_read | Support to manage all notification in the system. |
| mic\_payment | Describe all payment information in the system. |
| mic\_staff | Describe all staff profile available in the system. |

**Table xx: Data Dictionary**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table Name** | **Attributes** | **Description** | **Domain** | **Null** |
| increments | table\_name {PK} | Unique identifier of increments | varchar(255) | No |
| increment |  |  | Yes |
| mic\_business\_rules | id {PK} | Unique identifier of business rules | int(10) | No |
| start\_date\_before | Duration contract start before current date | int(10) | No |
| start\_date\_after | Duration contract start after current date | int(10) | No |
| contract\_min\_term | Minimum contract term | int(11) | No |
| contract\_default\_term | Default contract term | int(10) | No |
| paid\_date\_before | Duration pay for contract before current date | int(10) | No |
| paid\_date\_after | Duration pay for contract after current date | int(10) | No |
| cancel\_date\_before | Duration cancel contract before current date | int(10) | No |
| cancel\_date\_after | Duration cancel contract after current date | int(10) | No |
| payment\_due\_date | Duration pay for contract from create date | int(10) | No |
| nearly\_exceed\_expired\_one | Duration first time notify contract is going to expired | int(10) | No |
| nearly\_exceed\_expired\_two | Duration second time notify contract is going to expired | int(10) | No |
| nearly\_exceed\_expired\_three | Duration third time notify contract is going to expired | int(10) | No |
| new\_card\_request\_fee | The amount has to paid for new card | int(10) | No |
| delivery\_fee | The amount has to paid for delivery new card | int(10) | No |
| mic\_contract\_type | id {PK} | Unique identifier of contract type, auto increment. | int(11) | No |
| name | Contract type name. | varchar(250) | No |
| description | Contract type description. | varchar(2000) | No |
| price\_per\_year | Contract type price per year. | float | No |
| mic\_contract | contract\_code {PK} | Unique identifier of contract. | varchar(10) | No |
| created\_date | Contract created date | datetime | No |
| start\_date | Contract start date | datetime | No |
| expired\_date | Contract expired date | datetime | No |
| status | Contract status | varchar(50) | No |
| contract\_fee | Contract fee | float | No |
| plate | Vehicle plate | varchar(15) | No |
| brand | Vehicle brand | varchar(20) | No |
| model\_code | Vehicle model code | varchar(20) | Yes |
| vehicle\_type | Vehicle type | varchar(20) | Yes |
| color | Vehicle color | varchar(20) | Yes |
| engine | Vehicle engine number | varchar(20) | No |
| chassis | Vehicle chassis nuber | varchar(20) | No |
| capacity | Vehicle capacity | varchar(20) | No |
| year\_of\_manufacture | Vehicle year of manufacture | int(11) | Yes |
| weight | Vehicle empty weight | int(11) | Yes |
| seat\_capacity | Vehicle seat capacity | int(11) | Yes |
| cancel\_date | Contract cancel date | datetime | Yes |
| cancel\_reason | Contract cancel reason | varchar(250) | Yes |
| cancel\_note | Contract cancel note | varchar(2000) | Yes |
| last\_modified | Contract last modified | datetime | No |
| staff\_code | Code of the staff who created this contract | varchar(10) |  |
| contract\_type\_id | Contract type id | int(11) | No |
| customer\_code | Code of the customer who own this contract | varchar(10) | No |
| mic\_accident | id {PK} | Unique identifier of accident, auto increment. | int(11) | No |
| title | Accident title | varchar(250) | No |
| attachment | Accident attachment | varchar(255) | No |
| created\_date | Accident created date | datetime | No |
| last\_modified | Accident last modified | datetime | No |
| contract\_code | Code of the contract has this accident | varchar(10) | No |
| mic\_compensation | compensation\_code {PK} | Unique identifier of compensation | varchar(10)PK | No |
| driver\_name | Compensation driver name | varchar(80) | No |
| license\_number | Compensation driver license number | varchar(15) | No |
| license\_type | Compensation driver license type | varchar(10) | No |
| driver\_phone | Compensation driver phone | varchar(15) | No |
| vehicle\_capacity | Compensation driver vehicle capacity | varchar(20) | No |
| driver\_address | Compensation driver address | varchar(250) | No |
| plate | Compensation driver vehicle plate | varchar(15) | No |
| accident\_date | Compensation accident date | datetime | No |
| accident\_place | Compensation accident place | varchar(250) | No |
| control\_department | Department which control this accident | varchar(250) | No |
| description | Compensation description | varchar(2000) | No |
| human\_damage | Accident human damage | varchar(2000) | No |
| asset\_damage | Accident asset damage | varchar(2000) | No |
| observer | Observer name | varchar(80) | No |
| observer\_address | Observer address | varchar(250) | No |
| compensation\_note | Compensation note | varchar(2000) | Yes |
| attachment | Compensation attachment | varchar(255) | Yes |
| created\_date | Compensation created date | datetime | No |
| resolve\_date | Compensation resolve date | datetime | Yes |
| decision | Compensation decision | varchar(250) | Yes |
| resolve\_note | Compensation resolve note | varchar(2000) | Yes |
| last\_modified | Compensation last modified time | datetime | No |
| contract\_code | Code of the contract has this compensation | varchar(10) | No |
| mic\_punishment | id {PK} | Unique identifier of punishment, auto increment. | int(11) | No |
| title | Punishment title | varchar(250) | No |
| attachment | Punishment attachment | varchar(255) | No |
| created\_date | Punishment created date | datetime | No |
| last\_modified | Punishment last modified | datetime | No |
| contract\_code | Code of the contract has this punishment | varchar(10) | No |
| mic\_card | card\_id {PK} | Unique identifier of card. | varchar(20) | No |
| activated\_date | Card activated date | datetime | No |
| deactivated\_date | Card deactivated date | datetime | Yes |
| contract\_code | Code of contract has this card | varchar(10) | No |
| new\_card\_request\_id | New card request id | int(11) | Yes |
| mic\_card\_access\_log | id {PK} | Unique identifier of card access log, auto increment. | int(11) | No |
| access\_date | Access card date | datetime | No |
| device | Access card device | varchar(50) | No |
| request\_service | Service requested | varchar(200) | No |
| response\_content | Content responsed | varchar(200) | No |
| card\_id | Card ID | varchar(20) | No |
| mic\_new\_card\_request | id {PK} | Unique identifier of new card request, auto increment. | int(11) | No |
| request\_date | Send request date | datetime | No |
| resolve\_date | Resolve request date | datetime | Yes |
| note | Resolve request note | varchar(2000) | Yes |
| old\_card\_id | ID of old card | varchar(20) | No |
| mic\_customer | customer\_code{PK} | Unique identifier of customer | varchar(10) | No |
| name | Customer name | varchar(80) | No |
| address | Customer address | varchar(250) | No |
| email | Customer email | varchar(250) | No |
| phone | Customer phone | varchar(15) | No |
| personal\_id | Customer personal ID | varchar(15) | Yes |
| password | Customer password | varchar(32) | No |
| is\_default\_password | Value to check customer password is default or not. | int(1) | No |
| last\_modified | Customer last modified time | datetime | No |
| mic\_notification | id {PK} | Unique identifier of notification, auto increment. | int(11) | No |
| content | Notification content | varchar(2000) | No |
| receiver | Notification receiver | varchar(250) | No |
| method | Notification method | int(11) | No |
| type | Notification type | int(11) | No |
| extra\_data | Notification extra data | varchar(2000) | Yes |
| created\_date | Notification created date | datetime | No |
| resolved\_date | Notification resolved date | datetime | Yes |
| resolved\_staff | Notification resolved staff | varchar(10) | Yes |
| mic\_notification\_read | id {PK} | Unique identifier of notification read, auto increment. | int(11) | No |
| user\_code | Code of user read this notification | varchar(10) | No |
| notification\_id | Notification ID | int(11) | No |
| is\_read | Value to check notification is read or not yet. | int(11) | No |
| mic\_payment | id {PK} | Unique identifier of payment, auto increment. | int(11) | No |
| paid\_date | The date the payment is paid | datetime | No |
| payment\_method | Payment method | varchar(20) | No |
| content | Payment content | varchar(250) | No |
| amount | Payment amount | float | No |
| paypal\_trans\_id | PayPal transaction ID | varchar(50) | Yes |
| start\_date | Contract start date while payment content is renew | datetime | Yes |
| expired\_date | Contract expired date while payment content is renew | datetime | Yes |
| contract\_code | Code of contract has this payment | varchar(10) | No |
| receiver | Payment receiver | varchar(10) | Yes |
| mic\_staff | staff\_code {PK} | Unique identifier of staff | varchar(10) | No |
| password | Staff password | varchar(32) | No |
| name | Staff name | varchar(80) | No |
| email | Staff email | varchar(250) | No |
| phone | Staff phone | varchar(15) | No |

**Table xx: Attribute Data Dictionary**