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|  | **JDC Bootcamp 2017**  **PT. ASTRA GRAPHIA INFORMATION TECHNOLOGY** |

***Technical Spesification Document (TSD)***

**<< nama project >>**

**Dipersiapkan Oleh:**

**<< nama tim >>**

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| --- | --- | --- |
| *Project Leader* | *:* |  |
| *Document Number* | *:* |  |
| *Document Version* | *:* |  |
| *Created By* | *:* |  |
| *Created Date* | *:* | 20-Jul-2017 |

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**Technical Design Approval Page**

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We, the undersigned, hereby agree that [Project Name] has passed the Functional Design stage of [Module Name] module.

Note: Enterprise Architect structure and documentation for Technical Design will be re-arranged by Astra Graphia Informatian Technology (AGIT), according to AGIT standard on maintenance phase

**Document Author**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Name** | **Position/Role** | **Sign Date** | **Signature** |
| 1 | AGIT - JDC Bootcamp 2017 |  |  |  |
| 2 |  |  |  |  |

**Approved By**

|  |  |  |  |  |
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| **No** | **Name** | **Position/Role** | **Approval Date** | **Signature** |
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**model** **>**

***Revision History***

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Date** | **Author** | **Change Summary** |
| 1.0 | 20-Jul-2017 |  |  |
|  |  |  |  |

***References***

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***Glossary***

| **Term** | **Description** |
| --- | --- |
| AGIT | Astra Graphia Information Technology |
| AI | Astra International |
| EA | Enterprise Architect |
| UML | Unified Modelling Language |
| TSD | Technical Spesification Document |
| FSD | Functional Spesification Document |
| Use Case Diagram | Diagram usecase yang digunakan untuk menggambarkan secara ringkas siapa yang menggunakan sistem dan apa saja yang bisa dilakukannya. |
| Business Process | Suatu kumpulan aktivitas atau pekerjaan terstruktur yang saling terkait untuk menyelesaikan suatu masalah tertentu atau yang menghasilkan produk atau layanan (demi meraih tujuan tertentu). |
| Class Diagram | Model statis yang menggambarkan struktur dan deskripsi class serta hubungannya antara class. |
| Data Model | Sekumpulan konsep-konsep untuk menerangkan data, hubungan-hubungan antara data dan batasan-batasan data yang terintegrasi di dalam suatu organisasi. |
| ERD | Entity Relationship Diagram |
| Sequence Diagram | Suatu diagram yang memperlihatkan atau menampilkan interaksi-interaksi antar objek di dalam sistem yang disusun pada sebuah urutan atau rangkaian waktu. |
| Data Flow Diagram | Suatu diagram yang menggunakan notasi-notasi untuk menggambarkan arus dari data sistem, yang penggunaannya sangat membantu untuk memahami sistem secara logika, tersruktur dan jelas. DFD merupakan alat bantu dalam menggambarkan atau menjelaskan sistem yang sedang berjalan logis. |

**Pendahuluan**

1. **Deskripsi**

Program JDC Bootcamp 2017 yang dilaksanakan oleh PT. Astra Graphia Information Technology merupakan suatu program yang dilakukan untuk memberikan bekal, baik mental, skill, maupun pengetahuan bagi para calon kandidat sebelum dilakukan proses offering oleh tim HRD. Program ini berlangsung selama 15 hari kerja yang dimulai dari tanggal 17 Juli – 4 Agustus 2017.

1. **Tujuan**

Tujuan dilaksanakannya JDC Bootcamp 2017 ini adalah sebagai berikut:

1. Mengembangkan kompetensi peserta sebagai *Java Developer*
2. Peserta dapat mengaplikasikan kompetensi pemrograman *Java* dalam ruang lingkup dunia kerjanya sebagai *Java Developer*
3. Mengembangkan *Java Developer* dalam memberikan nilai tambah dalam lingkungan kerjanya sehingga dapat menghasilkan proses yang unggul (*process excellence*).
4. **Ruang Lingkup**

Ruang lingkup dari acara ini meliputi Pre JDC Program, JDC Program, dan juga Evaluasi Bootcamp. Sedangkan ruang lingkup yang diajarkan dalam program tersebut adalah terkait Java dan Teknologi yang berkaitan dengan Java.

**Use Case Diagram - Use Case Diagram**

**Diagram: Use Case Diagram**

Figure: 1 - Use Case Diagram

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case:** | ADMIN | | Use Case Id: |
| **Status:** | Proposed | Version: 1.0 | Phase: 1.0 |
| **Author:** | 645 | Created: 7/19/2017 | Modified: 7/19/2017 |
| **Notes:** |  | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Related To:** | **Source** | **Connector** | **Target** |
|  | **element >**  <Element.ParentPackage>.{Element.Name}  **< elemen****t** | *UseCaseLink* | **element >**  <Element.ParentPackage>.{Element.Name}  **< elemen****t** |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case:** | EMPLOYEE | | Use Case Id: |
| **Status:** | Proposed | Version: 1.0 | Phase: 1.0 |
| **Author:** | 645 | Created: 7/19/2017 | Modified: 7/19/2017 |
| **Notes:** |  | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Related To:** | **Source** | **Connector** | **Target** |
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|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case:** | SUPERADMIN | | Use Case Id: |
| **Status:** | Proposed | Version: 1.0 | Phase: 1.0 |
| **Author:** | 645 | Created: 7/19/2017 | Modified: 7/19/2017 |
| **Notes:** |  | | |

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| **Related To:** | **Source** | **Connector** | **Target** |
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|  | **element >**  <Element.ParentPackage>.{Element.Name}  **< elemen****t** | *UseCaseLink* | **element >**  <Element.ParentPackage>.{Element.Name}  **< elemen****t** |

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|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case:** | Manage Layanan | | Use Case Id: |
| **Status:** | Proposed | Version: 1.0 | Phase: 1.0 |
| **Author:** | 645 | Created: 7/19/2017 | Modified: 7/19/2017 |
| **Notes:** |  | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Related To:** | **Source** | **Connector** | **Target** |
|  | **element >**  <Element.ParentPackage>.{Element.Name}  **< elemen****t** | *UseCaseLink* | **element >**  <Element.ParentPackage>.{Element.Name}  **< elemen****t** |

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| --- | --- | --- | --- |
|  | **element >**  <Element.ParentPackage>.{Element.Name}  **< elemen****t** | *UseCaseLink* | **element >**  <Element.ParentPackage>.{Element.Name}  **< elemen****t** |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case:** | Manage Privilege | | Use Case Id: |
| **Status:** | Proposed | Version: 1.0 | Phase: 1.0 |
| **Author:** | 645 | Created: 7/19/2017 | Modified: 7/19/2017 |
| **Notes:** |  | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Related To:** | **Source** | **Connector** | **Target** |
|  | **element >**  <Element.ParentPackage>.{Element.Name}  **< elemen****t** | *UseCaseLink* | **element >**  <Element.ParentPackage>.{Element.Name}  **< elemen****t** |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case:** | Manage Role | | Use Case Id: |
| **Status:** | Proposed | Version: 1.0 | Phase: 1.0 |
| **Author:** | 645 | Created: 7/19/2017 | Modified: 7/19/2017 |
| **Notes:** |  | | |

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| --- | --- | --- | --- |
| **Related To:** | **Source** | **Connector** | **Target** |
|  | **element >**  <Element.ParentPackage>.{Element.Name}  **< elemen****t** | *UseCaseLink* | **element >**  <Element.ParentPackage>.{Element.Name}  **< elemen****t** |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case:** | Manage Tiket | | Use Case Id: |
| **Status:** | Proposed | Version: 1.0 | Phase: 1.0 |
| **Author:** | 645 | Created: 7/19/2017 | Modified: 7/19/2017 |
| **Notes:** |  | | |

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| **Related To:** | **Source** | **Connector** | **Target** |
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| --- | --- | --- | --- |
|  | **element >**  <Element.ParentPackage>.{Element.Name}  **< elemen****t** | *UseCaseLink* | **element >**  <Element.ParentPackage>.{Element.Name}  **< elemen****t** |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case:** | Manage User | | Use Case Id: |
| **Status:** | Proposed | Version: 1.0 | Phase: 1.0 |
| **Author:** | 645 | Created: 7/19/2017 | Modified: 7/19/2017 |
| **Notes:** |  | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Related To:** | **Source** | **Connector** | **Target** |
|  | **element >**  <Element.ParentPackage>.{Element.Name}  **< elemen****t** | *UseCaseLink* | **element >**  <Element.ParentPackage>.{Element.Name}  **< elemen****t** |

**Business Process Diagram - Business Process**

Figure 2 - Business Process

**Class Diagram - Class Diagram**

Figure 3 - Class Diagram

Figure 4 - Class Service

**Data Model (ERD) - Data Model**

Figure: 5 -Data Model (ERD)

**MST\_Layanan**

**Table**

**Columns**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **PK** | **Name** | **Type** | **Not Null** | **Unique** | **Len** | **Prec** | **Scale** | **Notes** |
| True | LayananID | integer | True | False |  |  |  |  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| False | LayananType | varchar | False | False | 50 |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| False | LayananName | varchar | False | False | 50 |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| False | Description | varchar | False | False | 50 |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| False | PICLayanan | varchar | False | False | 50 |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| False | CreatedBy | varchar | False | False | 50 |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| False | CreatedDate | date | False | False |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| False | ModifiedBy | varchar | False | False | 50 |  |  |  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| False | ModifiedDate | date | False | False |  |  |  |  |

**Constraints**

| **Name** | **Type** | **Columns** | **Initial Code** | **Notes** |
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| PK\_Layanan | «PK» | LayananID |  |  |

**Relationship**

| **Columns** | **Association** | **Notes** |
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| (LayananID = LayananID) | **0..\*.**  **element >**  **{Element.Name}**  **< elemen****t**  FK\_User\_Layanan  **1**  **element >**  **{Element.Name}**  **< elemen****t**  PK\_Layanan |  |

|  |  |  |
| --- | --- | --- |
| (LayananID = LayananID) | **0..\*.**  **element >**  **{Element.Name}**  **< elemen****t**  FK\_Tiket\_Layanan  **1**  **element >**  **{Element.Name}**  **< elemen****t**  PK\_Layanan |  |

**MST\_Privilege**

**Table**

**Columns**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **PK** | **Name** | **Type** | **Not Null** | **Unique** | **Len** | **Prec** | **Scale** | **Notes** |
| True | PriviledgeID | integer | True | False |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| False | PriviledgeName | varchar | True | False | 50 |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| False | RoleID | integer | False | False |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| False | AccessTypeID | binary | False | False |  |  |  |  |

**Constraints**

| **Name** | **Type** | **Columns** | **Initial Code** | **Notes** |
| --- | --- | --- | --- | --- |
| FK\_Priviledge\_Role | «FK» | RoleID |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| PK\_Priviledge | «PK» | PriviledgeID |  |  |

**Relationship**

| **Columns** | **Association** | **Notes** |
| --- | --- | --- |
| (RoleID = RoleID) | **0..\*.**  **element >**  **{Element.Name}**  **< elemen****t**  FK\_Priviledge\_Role  **1**  **element >**  **{Element.Name}**  **< elemen****t**  PK\_Table1 |  |

**MST\_Role**

**Table**

**Columns**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **PK** | **Name** | **Type** | **Not Null** | **Unique** | **Len** | **Prec** | **Scale** | **Notes** |
| True | RoleID | integer | True | False |  |  |  |  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| False | RoleName | varchar | False | False | 50 |  |  |  |

**Constraints**

| **Name** | **Type** | **Columns** | **Initial Code** | **Notes** |
| --- | --- | --- | --- | --- |
| PK\_Table1 | «PK» | RoleID |  |  |

**Relationship**

| **Columns** | **Association** | **Notes** |
| --- | --- | --- |
| (RoleID = RoleID) | **0..\*.**  **element >**  **{Element.Name}**  **< elemen****t**  FK\_User\_Role  **1**  **element >**  **{Element.Name}**  **< elemen****t**  PK\_Table1 |  |

|  |  |  |
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| (RoleID = RoleID) | **0..\*.**  **element >**  **{Element.Name}**  **< elemen****t**  FK\_Priviledge\_Role  **1**  **element >**  **{Element.Name}**  **< elemen****t**  PK\_Table1 |  |

**MST\_User**

**Table**

**Columns**

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| **PK** | **Name** | **Type** | **Not Null** | **Unique** | **Len** | **Prec** | **Scale** | **Notes** |
| True | UserID | integer | True | False |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| False | UserName | varchar | False | False | 50 |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| False | RoleID | integer | True | False |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| False | TiketID | integer | False | False |  |  |  |  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| False | FullName | varchar | False | False | 50 |  |  |  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| False | Phone | varchar | False | False | 50 |  |  |  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| False | Email | varchar | False | False | 50 |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| False | LayananID | integer | False | False |  |  |  |  |

**Constraints**

| **Name** | **Type** | **Columns** | **Initial Code** | **Notes** |
| --- | --- | --- | --- | --- |
| FK\_User\_Layanan | «FK» | LayananID |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| FK\_User\_Role | «FK» | RoleID |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| FK\_User\_Tiket | «FK» | TiketID |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| PK\_Table1 | «PK» | UserID |  |  |

**Relationship**

| **Columns** | **Association** | **Notes** |
| --- | --- | --- |
| (RoleID = RoleID) | **0..\*.**  **element >**  **{Element.Name}**  **< elemen****t**  FK\_User\_Role  **1**  **element >**  **{Element.Name}**  **< elemen****t**  PK\_Table1 |  |

|  |  |  |
| --- | --- | --- |
| (LayananID = LayananID) | **0..\*.**  **element >**  **{Element.Name}**  **< elemen****t**  FK\_User\_Layanan  **1**  **element >**  **{Element.Name}**  **< elemen****t**  PK\_Layanan |  |

|  |  |  |
| --- | --- | --- |
| (TiketID = TiketID) | **0..\*.**  **element >**  **{Element.Name}**  **< elemen****t**  FK\_User\_Tiket  **1**  **element >**  **{Element.Name}**  **< elemen****t**  PK\_Table1 |  |

**TRX\_Tiket**

**Table**

**Columns**

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| **PK** | **Name** | **Type** | **Not Null** | **Unique** | **Len** | **Prec** | **Scale** | **Notes** |
| True | TiketID | integer | True | False |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| False | LayananID | integer | False | False |  |  |  |  |

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| False | TiketName | varchar | False | False | 50 |  |  |  |

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| False | CreatedBy | varchar | False | False | 50 |  |  |  |

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| False | CreatedDate | date | False | False |  |  |  |  |

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| False | ModifiedBy | varchar | False | False | 50 |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| False | ModifeidDate | date | False | False |  |  |  |  |

**Constraints**

| **Name** | **Type** | **Columns** | **Initial Code** | **Notes** |
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| FK\_Tiket\_Layanan | «FK» | LayananID |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| PK\_Table1 | «PK» | TiketID |  |  |

**Relationship**

| **Columns** | **Association** | **Notes** |
| --- | --- | --- |
| (LayananID = LayananID) | **0..\*.**  **element >**  **{Element.Name}**  **< elemen****t**  FK\_Tiket\_Layanan  **1**  **element >**  **{Element.Name}**  **< elemen****t**  PK\_Layanan |  |

|  |  |  |
| --- | --- | --- |
| (TiketID = TiketID) | **0..\*.**  **element >**  **{Element.Name}**  **< elemen****t**  FK\_User\_Tiket  **1**  **element >**  **{Element.Name}**  **< elemen****t**  PK\_Table1 |  |

**imij**

**Table**

**Columns**

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| **PK** | **Name** | **Type** | **Not Null** | **Unique** | **Len** | **Prec** | **Scale** | **Notes** |
| True | id | integer | True | False |  |  |  |  |

**Constraints**

| **Name** | **Type** | **Columns** | **Initial Code** | **Notes** |
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| FK\_imij\_rfvtf | «FK» | id |  |  |

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| PK\_Table1 | «PK» | id |  |  |

**Relationship**

| **Columns** | **Association** | **Notes** |
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**rfvtf**

**Table**

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|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **PK** | **Name** | **Type** | **Not Null** | **Unique** | **Len** | **Prec** | **Scale** | **Notes** |
| True | id | integer | True | False |  |  |  |  |

**Constraints**

| **Name** | **Type** | **Columns** | **Initial Code** | **Notes** |
| --- | --- | --- | --- | --- |
| PK\_Table1 | «PK» | id |  |  |

**Relationship**

| **Columns** | **Association** | **Notes** |
| --- | --- | --- |
| (id = id) | **0..\*.**  **element >**  **{Element.Name}**  **< elemen****t**  FK\_imij\_rfvtf  **1**  **element >**  **{Element.Name}**  **< elemen****t**  PK\_Table1 |  |

**Sequence Diagram - Sequence Diagram**

**Sequence Diagram E2E - Sequence Diagram**

**Sequence Diagram E2E - (Interaction diagram)**

Figure: 6 - Sequence Diagram E2E

**Messages**

|  |  |
| --- | --- |
| **Message/Signature** | **Description** |
| **1.0 - checkDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.1 - checkDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.2 - validateParameter**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.3 - getDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.4 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.5 - ture/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.6 - ture/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.7 - ture/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.0 - createDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.1 - validateMandatoryField**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.2 - saveDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.3 - validateDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.4 - inputDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.0 - findDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.1 - findDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.2 - validateFindParameter**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.3 - getDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.4 - dataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.5 - dataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.6 - dataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.7 - dataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.0 - updateDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.1 - validateMandatoryField**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.2 - saveDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.3 - validateDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.4 - updateDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **5.0 - deleteDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **5.1 - saveDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **5.2 - validateDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **5.3 - updateDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **6.0 - checkDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **6.1 - checkDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **6.2 - validateParameter**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **6.3 - getDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **6.4 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **6.5 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **6.6 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **6.7 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **7.0 - createDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **7.1 - validateMandatoryField**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **7.2 - saveDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **7.3 - validateDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **7.4 - insertDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **8.0 - findDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **8.1 - findDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **8.2 - validateParameterFind**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **8.3 - getDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **8.4 - dataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **8.5 - dataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **8.6 - dataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **8.7 - dataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **9.0 - updateDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **9.1 - validateMandatoryField**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **9.2 - saveDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **9.3 - validateDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **9.4 - updateDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **10.0 - deleteDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **10.1 - saveDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **10.2 - validateDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **10.3 - updateDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **11.0 - checkDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **11.1 - checkDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **11.2 - validateParameter**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **11.3 - getDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **11.4 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **11.5 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **11.6 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **11.7 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **12.0 - inputDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **12.1 - validateMandatoryField**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **12.2 - saveDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **12.3 - validateDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **12.4 - insertDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **13.0 - findDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **13.1 - findDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **13.2 - validateParameterFind**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **13.3 - getDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **13.4 - dataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **13.5 - dataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **13.6 - dataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **13.7 - dataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **14.0 - updateDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **14.1 - validateMandatoryField**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **14.2 - saveDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **14.3 - validationDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **14.4 - updateDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **15.0 - deleteDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **15.1 - saveDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **15.2 - validationDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **15.3 - updateDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **16.0 - checkDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **16.1 - checkDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **16.2 - validateParameter**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **16.3 - getDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **16.4 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **16.5 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **16.6 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **16.7 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **17.0 - createDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **17.1 - validateMandatoryField**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **17.2 - saveDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **17.3 - validateDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **17.4 - insertDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **18.0 - findDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **18.1 -**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **18.2 - validateParameterFind**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **18.3 - getDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **18.4 - dataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **18.5 - dataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **18.6 - dataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **18.7 - dataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **19.0 - updateDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **19.1 - validateMandatoryField**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **19.2 - saveDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **19.3 - validateDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **19.4 - updateDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **20.0 - deleteDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **20.1 - saveDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **20.2 - validateDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **20.3 - updateDataTiket**  P*arams:*  Conditions: |  |

**Sequence Diagram Employee - Sequence Diagram**

**Sequence Diagram Employee - (Interaction diagram)**

Figure: 7 - Sequence Diagram Employee

**Messages**

|  |  |
| --- | --- |
| **Message/Signature** | **Description** |
| **1.0 - checkDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.1 - checkDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.2 - validateParameter**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.3 - getDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.4 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.5 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.6 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.7 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.0 - inputDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.1 - validateMandatoryField**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.2 - saveDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.3 - validateDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.4 - insertDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.0 - findDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.1 - findDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.2 - validateFindParameter**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.3 - getDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.4 - dataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.5 - dataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.6 - dataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.7 - dataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.0 - updateDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.1 - validateMandatoryField**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.2 - saveDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.3 - validateDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.4 - updateDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **5.0 - deleteDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **5.1 - deleteDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **5.2 - validateDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **5.3 - updateDataTiket**  P*arams:*  Conditions: |  |

**Sequence Diagram Super Admin - Sequence Diagram**

**Sequence Diagram Super Admin - (Interaction diagram)**

Figure: 8 - Sequence Diagram Super Admin

**Messages**

|  |  |
| --- | --- |
| **Message/Signature** | **Description** |
| **1.0 - checkDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.1 - checkDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.2 - validateParameter**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.3 - getDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.4 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.5 - ture/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.6 - ture/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.7 - ture/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.0 - createDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.1 - validateMandatoryField**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.2 - saveDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.3 - validateDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.4 - inputDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.0 - findDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.1 - findDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.2 - validateFindParameter**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.3 - getDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.4 - dataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.5 - dataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.6 - dataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.7 - dataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.0 - updateDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.1 - validateMandatoryField**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.2 - saveDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.3 - validateDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.4 - updateDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **5.0 - deleteDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **5.1 - saveDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **5.2 - validateDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **5.3 - updateDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **6.0 - checkDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **6.1 - checkDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **6.2 -**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **6.3 -**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **6.4 -**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **6.5 -**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **6.6 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **6.7 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **7.0 - createDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **7.1 - validateMandatoryField**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **7.2 -**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **7.3 - validateDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **7.4 - insertDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **8.0 - findDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **8.1 - findDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **8.2 - validateParameterFind**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **8.3 - getDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **8.4 - dataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **8.5 - dataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **8.6 - dataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **8.7 - dataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **9.0 - updateDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **9.1 - validateMandatoryField**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **9.2 - updateDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **9.3 - validateDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **9.4 - updateDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **10.0 - deleteDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **10.1 - updateDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **10.2 - validateDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **10.3 - updateDataTiket**  P*arams:*  Conditions: |  |

**Super Admin Privilege - Sequence Diagram**

**Super Admin Privilege - (Interaction diagram)**

Figure: 9 - Super Admin Privilege

**Messages**

|  |  |
| --- | --- |
| **Message/Signature** | **Description** |
| **1.0 - checkDataPrivilege**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.1 - checkDataPrivilege**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.2 - validateParameter**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.3 - getDataPrivilege**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.4 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.5 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.6 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.7 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.0 - inputDataPrivilege**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.1 - validateMandatoryField**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.2 - saveDataPrivilege**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.3 - validateDataPrivilege**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.4 - insertDataPrivilege**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.0 - findDataPrivilege**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.1 - findDataPrivilege**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.2 - validateFindParameter**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.3 - getDataPrivilege**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.4 - dataPrivilege**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.5 - dataPrivilege**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.6 - dataPrivilege**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.7 - dataPrivilege**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.0 - updateDataPrivilege**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.1 - validateMandatoryField**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.2 - saveDataPrivilege**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.3 - validateDataPrivilege**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.4 - updateDataPrivilege**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **5.0 - deleteDataPrivilege**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **5.1 - deleteDataPrivilege**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **5.2 - validateDataPrivilege**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **5.3 - updateDataPrivilege**  P*arams:*  Conditions: |  |

**Super Admin Role - Sequence Diagram**

**Super Admin Role - (Interaction diagram)**

Figure: 10 - Super Admin Role

**Messages**

|  |  |
| --- | --- |
| **Message/Signature** | **Description** |
| **1.0 - checkDataRole**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.1 - checkDataRole**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.2 - validateParameter**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.3 - getDataRole**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.4 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.5 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.6 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.7 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.0 - inputDataRole**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.1 - validateMandatoryField**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.2 - saveDataRole**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.3 - validateDataRole**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.4 - insertDataRole**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.0 - findDataRole**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.1 - findDataRole**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.2 - validateFindParameter**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.3 - getDataRole**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.4 - dataRole**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.5 - dataRole**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.6 - dataRole**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.7 - dataRole**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.0 - updateDataRole**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.1 - validateMandatoryField**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.2 - saveDataRole**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.3 - validateDataRole**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.4 - updateDataRole**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **5.0 - deleteDataRole**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **5.1 - deleteDataRole**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **5.2 - validateDataRole**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **5.3 - updateDataRole**  P*arams:*  Conditions: |  |

**Super Admin User - Sequence Diagram**

**Super Admin User - (Interaction diagram)**

Figure: 11 - Super Admin User

**Messages**

|  |  |
| --- | --- |
| **Message/Signature** | **Description** |
| **1.0 - checkDataUser**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.1 - validateParameter**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.2 - getDataUser**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.3 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.4 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.5 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.6 - validateMandatoryField**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.7 - saveDataUser**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.8 - validateDataUser**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.9 - insertDataUser**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.10 - findDataUser**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.11 - validateFindParameter**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.12 - getDataUser**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.13 - dataUser**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.14 - dataUser**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.15 - dataUser**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.16 - validateMandatoryField**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.17 - updateDataUser**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.18 - validatDataUser**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.19 - updateDataUser**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.20 - updateDataUser**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.21 - validatDataUser**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.22 - updateDataUser**  P*arams:*  Conditions: |  |

**Super Admin Layanan - Sequence Diagram**

**Super Admin Layanan - (Interaction diagram)**

Figure: 12 - Super Admin Layanan

**Messages**

|  |  |
| --- | --- |
| **Message/Signature** | **Description** |
| **1.0 - checkDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.1 - checkDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.2 - validateParameter**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.3 - getDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.4 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.5 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.6 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.7 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.0 - inputDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.1 - validateMandatoryField**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.2 - saveDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.3 - validateDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.4 - insertDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.0 - findDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.1 - findDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.2 - validateFindParameter**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.3 - getDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.4 - dataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.5 - dataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.6 - dataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.7 - dataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.0 - updateDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.1 - validateMandatoryField**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.2 - saveDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.3 - validateDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.4 - updateDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **5.0 - deleteDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **5.1 - deleteDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **5.2 - validateDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **5.3 - updateDataLayanan**  P*arams:*  Conditions: |  |

**Super Admin Tiket - Sequence Diagram**

**Super Admin Tiket - (Interaction diagram)**

Figure: 13 - Super Admin Tiket

**Messages**

|  |  |
| --- | --- |
| **Message/Signature** | **Description** |
| **1.0 - checkDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.1 - checkDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.2 - validateParameter**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.3 - getDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.4 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.5 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.6 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.7 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.0 - inputDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.1 - validateMandatoryField**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.2 - saveDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.3 - validateDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.4 - insertDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.0 - findDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.1 - findDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.2 - validateFindParameter**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.3 - getDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.4 - dataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.5 - dataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.6 - dataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.7 - dataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.0 - updateDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.1 - validateMandatoryField**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.2 - saveDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.3 - validateDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.4 - updateDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **5.0 - deleteDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **5.1 - deleteDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **5.2 - validateDataTiket**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **5.3 - updateDataTiket**  P*arams:*  Conditions: |  |

**Sequence Diagram Admin - Sequence Diagram**

**Sequence Diagram Admin - (Interaction diagram)**

Figure: 14 - Sequence Diagram Admin

**Messages**

|  |  |
| --- | --- |
| **Message/Signature** | **Description** |
| **1.0 - checkDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.1 - checkDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.2 - validateParameter**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.3 - getDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.4 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.5 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.6 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **1.7 - true/false**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.0 - inputDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.1 - validateMandatoryField**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.2 - saveDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.3 - validateDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **2.4 - insertDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.0 - findDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.1 - findDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.2 - validateFindParameter**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.3 - getDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.4 - dataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.5 - dataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.6 - dataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **3.7 - dataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.0 - updateDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.1 - validateMandatoryField**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.2 - saveDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.3 - validateDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **4.4 - updateDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **5.0 - deleteDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **5.1 - deleteDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **5.2 - validateDataLayanan**  P*arams:*  Conditions: |  |

|  |  |
| --- | --- |
| **5.3 - updateDataLayanan**  P*arams:*  Conditions: |  |

**Data Flow Diagram – Data Flow Diagram**

Figure 15 - Data Flow Diagram

**User Interface (Layout) - User Interface**

**Dashboard.Admin - User Interface**

Figure 16 - Dashboard.Admin

<anonymous>

**Dashboard.Employee - User Interface**

Figure 17 - Dashboard.Employee

Webpage1

Log out

ClientArea

ClientArea

Create

Delete

Search

Tipe layanan

Update

<anonymous>

**Dashboard.SuperAdmin - User Interface**

Figure 18 - Dashboard.SuperAdmin

PP

**Input Ticket - User Interface**

Figure 19 - Input.Ticket

Webpage1

Log out

Nama admin

ClientArea

ClientArea

Create

Pesan ticket

Ticket

Ticketing

Welcome Employee

<anonymous>

**Input.layanan - User Interface**

Figure 20 - Input.layanan

<anonymous>

**Login.Page - User Interface**

Figure 21 - Login.Page

**Page.pendaftaran - User Interface**

Figure 22 - Page.pendaftaran