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

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

**Order Management**

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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**

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**model** **>**

# Revision History

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| --- | --- | --- | --- |
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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.

# Business Process - Business Process

Figure 1 - Business Process

# Data Flow Diagram – Data Flow Diagram

## DFD LV 0 – Data Flow Diagram

Figure 2 - Data Flow Diagram

## DFD LV 1 – Data Flow Diagram

### DFD LV 1 1.0 manage user – Data Flow Diagram

Figure 3 - DFD LV 1 1.0 manage user

### DFD LV 1 2.0 manage role – Data Flow Diagram

Figure 4 - DFD LV 1 2.0 manage role

### DFD LV 1 3.0 manage menu – Data Flow Diagram

Figure 5 - DFD LV 1 3.0 manage menu

### DFD LV 1 4.0 manage produk – Data Flow Diagram

Figure 6 - DFD LV 1 4.0 manage produk

### DFD LV 1 5.0 manage penjualan – Data Flow Diagram

Figure 7 - DFD LV 1 5.0 manage penjualan

# Data Model (ERD) - Data Model

Figure: 8 -Data Model (ERD)

## Penjualan

**Table**

### Columns

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **PK** | **Name** | **Type** | **Not Null** | **Unique** | **Len** | **Prec** | **Scale** | **Notes** |
| True | penjualanID | integer | True | False |  |  |  |  |
| False | customerName | varchar | False | False | 50 |  |  |  |
| False | customerAddress | varchar | False | False | 50 |  |  |  |
| False | jumlahProduk | integer | False | False |  |  |  |  |
| False | status | varchar | False | False | 50 |  |  |  |
| False | createdDate | date | False | False |  |  |  |  |
| False | createdBy | varchar | False | False | 50 |  |  |  |
| False | modifiedDate | date | False | False |  |  |  |  |
| False | modifiedBy | varchar | False | False | 50 |  |  |  |

### Constraints

| **Name** | **Type** | **Columns** | **Initial Code** | **Notes** |
| --- | --- | --- | --- | --- |
| PK\_penjualanID | «PK» | penjualanID |  |  |

### Relationship

| **Columns** | **Association** | **Notes** |
| --- | --- | --- |
| (penjualanID = penjualanID) | **\*.**  **element >**  **{Element.Name}**  **< elemen****t**  FK\_Produk\_Penjualan  **1**  **element >**  **{Element.Name}**  **< elemen****t**  PK\_penjualanID |  |

## Produk

**Table**

### Columns

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **PK** | **Name** | **Type** | **Not Null** | **Unique** | **Len** | **Prec** | **Scale** | **Notes** |
| True | produkID | integer | True | False |  |  |  |  |
| False | produkName | varchar | False | False | 50 |  |  |  |
| False | deskripsi | varchar | False | False | 50 |  |  |  |
| False | jumlah | integer | False | False |  |  |  |  |
| False | harga | varchar | False | False | 50 |  |  |  |
| False | createdDate | date | False | False |  |  |  |  |
| False | createdBy | varchar | False | False | 50 |  |  |  |
| False | modifiedDate | date | False | False |  |  |  |  |
| False | modifiedBy | varchar | False | False | 50 |  |  |  |
| False | produkType | varchar | False | False | 50 |  |  |  |
| False | penjualanID | integer | False | False |  |  |  |  |

### Constraints

| **Name** | **Type** | **Columns** | **Initial Code** | **Notes** |
| --- | --- | --- | --- | --- |
| FK\_Produk\_Penjualan | «FK» | penjualanID |  |  |
| IXFK\_Produk\_Penjualan | «index» | penjualanID |  |  |
| PK\_produkID | «PK» | produkID |  |  |

### Relationship

| **Columns** | **Association** | **Notes** |
| --- | --- | --- |
| (penjualanID = penjualanID) | **\*.**  **element >**  **{Element.Name}**  **< elemen****t**  FK\_Produk\_Penjualan  **1**  **element >**  **{Element.Name}**  **< elemen****t**  PK\_penjualanID |  |

# Use Case Diagram - Use Case Diagram

**Diagram: Use Case Diagram**

Figure: 9 - Use Case Diagram

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case:** | Admin | | Use Case Id: |
| **Status:** | Proposed | Version: 1.0 | Phase: 1.0 |
| **Author:** | Lenovo | Created: 19/07/2017 | Modified: 19/07/2017 |
| **Notes:** |  | | |

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case:** | Sales | | Use Case Id: |
| **Status:** | Proposed | Version: 1.0 | Phase: 1.0 |
| **Author:** | Lenovo | Created: 19/07/2017 | Modified: 19/07/2017 |
| **Notes:** |  | | |

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case:** | Super Admin | | Use Case Id: |
| **Status:** | Proposed | Version: 1.0 | Phase: 1.0 |
| **Author:** | Lenovo | Created: 19/07/2017 | Modified: 19/07/2017 |
| **Notes:** |  | | |

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case:** | Mengelola Menu | | Use Case Id: |
| **Status:** | Proposed | Version: 1.0 | Phase: 1.0 |
| **Author:** | Lenovo | Created: 19/07/2017 | Modified: 19/07/2017 |
| **Notes:** |  | | |

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case:** | Mengelola Penjualan | | Use Case Id: |
| **Status:** | Proposed | Version: 1.0 | Phase: 1.0 |
| **Author:** | Lenovo | Created: 19/07/2017 | Modified: 19/07/2017 |
| **Notes:** |  | | |

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case:** | Mengelola Produk | | Use Case Id: |
| **Status:** | Proposed | Version: 1.0 | Phase: 1.0 |
| **Author:** | Lenovo | Created: 19/07/2017 | Modified: 19/07/2017 |
| **Notes:** |  | | |

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case:** | Mengelola Role | | Use Case Id: |
| **Status:** | Proposed | Version: 1.0 | Phase: 1.0 |
| **Author:** | Lenovo | Created: 19/07/2017 | Modified: 19/07/2017 |
| **Notes:** |  | | |

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case:** | Mengelola User | | Use Case Id: |
| **Status:** | Proposed | Version: 1.0 | Phase: 1.0 |
| **Author:** | Lenovo | Created: 19/07/2017 | Modified: 19/07/2017 |
| **Notes:** |  | | |

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

# User Interface (Layout) - User Interface

Figure 10 - Layout Dashboard

<anonymous>

Tri Handayani Sales

Figure 11 - Layout Input/Update Penjualan

Figure 12 - Layout Input/Update Produk

Figure 13 - Layout Input/Update User

<anonymous>

Nama

<anonymous>

No KTP

<anonymous>

Username

<anonymous>

UserID

<anonymous>

Alamat

<anonymous>

Roletype

Figure 14 - Layout Menu User2

<anonymous>

No KTP

<anonymous>

Username

<anonymous>

Nama

<anonymous>

Roletype

Figure 15 - Layout Search/Delete Penjualan

Figure 16 - Layout Search/Delete Produk

Figure 17 - Layout Search/Delete User

<anonymous>

No KTP

<anonymous>

Username

<anonymous>

Nama

<anonymous>

Roletype