|  |  |
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| **Data Flow Description**  **ID:** 1  **Name:** Invoice Information  **Description:** Customer Information and Invoice Information passed into the system. All information regarding the Invoice is passed in. | |
| **Source:** Invoice Desk | **Destination:** Validate Customer Form (Process) |
| **Type of data flow:**  \_ File = Screen \_Report \_Form \_Internal | |
| **Data Structure Travelling with the Flow:** | **Volume/Time:** |
| **Comments:** | |

Data Flow Description

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| **Data Flow Description**  **ID:** 2  **Name: CustomerNotFound Error**  **Description: Customer Account Not in the database** | |
| **Source: Validate Customer** **Form (Process)** | **Destination: -** |
| **Type of data flow:**  \_ File =Screen \_Report \_Form \_Internal | |
| **Data Structure Travelling with the Flow: Error Message** | **Volume/Time:** |
| **Comments:** | |

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| --- | --- |
| **Data Flow Description**  **ID: 3**  **Name: Customer Record**  **Description: Customer record passed from the database to the process to validate the customer record** | |
| **Source: Customer Table Database** | **Destination: Validate Customer Account** |
| **Type of data flow:**  \_ File =Screen \_Report \_Form \_Internal | |
| **Data Structure Travelling with the Flow:**  **Valid customer record** | **Volume/Time:** |
| **Comments:** | |

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| **Data Flow Description**  **ID: 4**  **Name: Valid Customer Details**  **Description: Valid Customer Details are passed to the process add information to invoice form** | |
| **Source: Validate Customer Account** | **Destination: Add information to invoice form** |
| **Type of data flow:**  \_ File =Screen \_Report \_Form \_Internal | |
| **Data Structure Travelling with the Flow:**  **All customer information** | **Volume/Time:** |
| **Comments:** | |

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| **Data Flow Description**  **ID: 5**  **Name: Access Invoice Information**  **Description: After accurate Customer Information, the user is granted access to the invoice form** | |
| **Source: Add information to invoice form** | **Destination: Pass in data to invoice form** |
| **Type of data flow:**  \_ File =Screen \_Report \_Form \_Internal | |
| **Data Structure Travelling with the Flow:**  **Customer information** | **Volume/Time:** |
| **Comments:** | |

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| **Data Flow Description**  **ID: 6**  **Name: Store information in Invoice Table**  **Description: Takes data passed in to the Invoice form** | |
| **Source: Pass in data to invoice form** | **Destination: Invoice Table Database** |
| **Type of data flow:**  \_ File =Screen \_Report \_Form \_Internal | |
| **Data Structure Travelling with the Flow:**  **Invoice information** | **Volume/Time:** |
| **Comments:** | |

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| **Data Flow Description**  **ID: 7**  **Name: Compile Invoice Information**  **Description: Compiles information from the Invoice Table Database** | |
| **Source: Invoice Table Database** | **Destination: Perform addition of fees and calculation of discount** |
| **Type of data flow:**  \_ File =Screen \_Report \_Form \_Internal | |
| **Data Structure Travelling with the Flow:**  **Gather Invoice and Customer Records to form one Invoice** | **Volume/Time:** |
| **Comments:** | |

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| **Data Flow Description**  **ID: 8**  **Name: Compile Information from both tables**  **Description: Information from the Customer and Invoice Table are gathered** | |
| **Source: Perform addition of fees and calculation of discount** | **Destination: Compiled Invoice** |
| **Type of data flow:**  \_ File =Screen \_Report \_Form \_Internal | |
| **Data Structure Travelling with the Flow:**  **Compiled Invoice** | **Volume/Time:** |
| **Comments:** | |

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| **Data Flow Description**  **ID: 9**  **Name: Invoice**  **Description: Invoice for the customer** | |
| **Source: Compiled Invoice** | **Destination: Customer Entity** |
| **Type of data flow:**  \_ File =Screen \_Report \_Form \_Internal | |
| **Data Structure Travelling with the Flow:**  **Invoice for the Customer** | **Volume/Time:** |
| **Comments:** | |

Data Store Description Form

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| --- |
| **Data Store Description Form**  **ID: D1**  **Name: Customer Table**  **Alias: D1**  **Description: Contains customer information** |
| **File Type:** =Computer \_Manual  **File Format:** =Database \_Indexed \_Sequential  **Record Size:**  **Number of Record: 10000 Maximum:9000 Average: 100**  **Growth Percent:** |
| **Data Set Name:**  **Data Structure:**  **Primary Key: Yes**  **Foreign Key:** |
| **Comments:** |

|  |
| --- |
| **Data Store Description Form**  **ID: D2**  **Name: Invoice Table**  **Alias: D2**  **Description: Contains invoice information** |
| **File Type:** =Computer \_Manual  **File Format:** =Database \_Indexed \_Sequential  **Record Size:**  **Number of Record: 10000 Maximum:9000 Average: 100**  **Growth Percent:** |
| **Data Set Name:**  **Data Structure:**  **Primary Key: Yes**  **Foreign Key: Yes(Customer Table)** |
| **Comments:** |

Process Description Form

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| --- | --- |
| **Process Description Form**  **ID: 1.1**  **Name: Validate Customer Account**  **Description: This will validate customer information passed in or validate if customer is in the Customer Database** | |
| **Input Data Flow:**  **Invoice Information, Customer Record** | **Output Data Flow:**  **CustomerNotFound Error, Valid Customer Details** |
| **Types of Process:**  =Online \_Batch \_Manual | |
| **Process Logic: Invoice Desk might query for an existing user or create information for a new user and this is responsible for validating all information** | |
| **Refer to Name:**  \_Structured\_Decision Table \_Decision Tree | |
| **Unresolved Issues:** | |

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| **Process Description Form**  **ID: 1.2**  **Name: Add Information to Invoice Form**  **Description: This helps to add some of the Customer information to the Invoice form.** | |
| **Input Data Flow:**  **Valid Customer Details** | **Output Data Flow:**  **Access Invoice Information Form** |
| **Types of Process:**  =Online \_Batch \_Manual | |
| **Process Logic: Some information about the Customer is passed to the invoice form to help the Invoice desk in filling up the Invoice Form** | |
| **Refer to Name:**  \_Structured\_Decision Table \_Decision Tree | |
| **Unresolved Issues:** | |

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| --- | --- |
| **Process Description Form**  **ID: 2.1**  **Name: Pass in data to Invoice Table**  **Description: Filled Invoice Form with information is stored in the Invoice Table** | |
| **Input Data Flow:**  **Access Invoice Information Form** | **Output Data Flow:**  **Store Information in Invoice Table** |
| **Types of Process:**  =Online \_Batch \_Manual | |
| **Process Logic: Filled Invoice Form is stored or passed to the Invoice Table for storage purposes** | |
| **Refer to Name:**  \_Structured\_Decision Table \_Decision Tree | |
| **Unresolved Issues:** | |

|  |  |
| --- | --- |
| **Process Description Form**  **ID: 3.1**  **Name: Perform addition of fees and calculation of discount**  **Description: There is a calculation of fees and discount given to the customer** | |
| **Input Data Flow:**  **Compile Invoice Information** | **Output Data Flow:**  **Compile Information from both tables** |
| **Types of Process:**  =Online \_Batch \_Manual | |
| **Process Logic: Total amount to be paid or discount can be calculated and this process handles that** | |
| **Refer to Name:**  \_Structured\_Decision Table \_Decision Tree | |
| **Unresolved Issues:** | |

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| **Process Description Form**  **ID: 3.2**  **Name: Compiled Invoice**  **Description: This is the full invoice to be given to the Customer Entity** | |
| **Input Data Flow:**  **Compile Information from both tables, Customer Information, Invoice Information** | **Output Data Flow:**  **Invoice** |
| **Types of Process:**  =Online \_Batch \_Manual | |
| **Process Logic: This is the final invoice compiled from the Invoice and Customer tables to form the invoice to be given to the entity customer** | |
| **Refer to Name:**  \_Structured\_Decision Table \_Decision Tree | |
| **Unresolved Issues:** | |

Data Dictionary

**Customer Tables** = Id + Title + First Name + Last Name + Address + Phone Number + Package

**Invoice Tables** = Car Rental Name + Invoice Number + Invoice Date + 51{Car Number} + Car Make + Kilometres/Hour + Duration (Hours) + Rent/Hour + Initial Amount Paid + Total Duration + Discount + Total + Amount Due + (Signature of Owner) + (Signature of Customer)

Customer Table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Type | Length | Description | Example |
| Id | Varchar | 45 | Unique Id | 00232 |
| Title | Varchar | 45 | Form of address | Mr, Mrs, Ms |
| First Name | Varchar | 45 | Surname | Chukwu |
| Last Name | Varchar | 45 | Name | Ebuka |
| Address | Varchar | 100 | Residence | 9, Maitama, Abuja |
| Phone Number | Varchar | 45 | Mobile Number | +2348094818898 |
| Package | Varchar | 45 | Company Status | Gold Level, Silver Level |

Invoice Table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Type | Length | Description | Example |
| Car Rental Name | Varchar | 45 | Car Rental Company Name | Salihu Car Rental Company |
| Invoice Number | Varchar | 45 | Id for Invoice | SC1234567 |
| Invoice Date | DATETIME |  |  | 2015-13-41 12:12 |
| Car Number | Varchar | 45 |  | KWL1234 |
| Car Make | Varchar | 45 |  | Honda |
| Kilometres/Hour | Int | 11 |  | 12 |
| Duration (Hours) | Int | 11 |  | 21 |
| Rent/Hour | Int | 11 |  | 2 |
| Initial Amount Paid | Int | 11 |  | 234566 |
| Total Duration | Int | 11 |  | 2 |
| Discount | Int | 11 |  | 23 |
| Total | Int | 11 |  | 12345678 |
| Amount Due | Int | 11 |  | 2342 |
| Signature Of Owner | Blob |  | Confirmation from company |  |
| Signature Of Customer | Blob |  | Confirmation from Customer |  |