# The Delivery Module

User Requirements:

1. Driver must be able to connect to database in order to retrieve orders associated with driver’s assigned route
2. Driver must be able to generate invoices
3. Driver must be able to make returns
4. Driver must be able to make sales on the spot

## System Requirements:

1. System should be able to authorize driver
2. System should be able to sync invoices from database to driver’s account on remote device
3. System should be able to provide listing and details of individual invoices for driver’s use
4. System should have mechanisms in place for drivers to record returns made to invoices
5. System should have procedures in place for drivers to be able to record all cash purchases

## Data Flow Diagram

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Entity Relationship Diagram

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## Sequence Diagrams

**Sequence Diagram for viewing all invoices**



## **Sequence Diagram for printing an invoice**



**Sequence Diagram for Logging in**



**Sequence Diagram for recording a cash purchase**



**Sequence Diagram for recording returns**



## Activity Diagram

**Activity Diagram for Logging in and Returning products**



**Activity Diagram for Recording a Cash Purchase**



**Activity Diagram for viewing all Invoices**



**Activity Diagram to view one invoice**



**Use Cases**

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| --- | --- |
| Use Case Name | Driver’s Login |
| Related Requirements | Must know login and password |
| Goal | Successful login |
| Pre-Conditions | Must have delivery app and logon credentials |
| Successful | User being successful in logging on to app |
| Fail End Condition | User being unsuccessful in logging in to app |
| Primary Actor | Driver |
| Secondary Actor | Manager |
| Main Flow | 1. User opens application 2. User is then prompted to enter credentials 3. User enters ID and password 4. User is then redirected to main menu |

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| --- | --- |
| Use Case Name | Returns for an order |
| Related Requirements | Must know the order associated with the product that is being returned |
| Goal | Successfully recording returns on an order |
| Pre-Conditions | Order must exist in order to make changes to it |
| Successful | Successfully add returns to an order |
| Fail End Condition | Unsuccessful in adding returns to an order |
| Primary Actor | Driver |
| Secondary Actor | Manager |
| Main Flow | 1. User opens application 2. User enters credentials 3. User is directed to main menu 4. User then selects the option for returns on an invoice 5. User is then prompted to enter customer info and date of invoice associated with product to be returned 6. User enters data 7. User then views the associated invoice 8. The quantity of the product/s being returned is entered into the return column of the order 9. User then clicks the save button 10. User is then redirected to the main menu |

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| --- | --- |
| Use Case Name | Recording a cash purchase |
| Related Requirements | User must have app |
| Goal | Successfully recording a cash purchase |
| Pre-Conditions | User must know the products being purchased and its quantity |
| Successful | Successful in recording a cash purchase |
| Fail End Condition | Unsuccessful in recording a cash purchase |
| Primary Actor | Driver |
| Secondary Actor | Manager |
| Main Flow | 1. User opens application 2. User enters credentials 3. User is directed to main menu 4. User then selects the recording a cash purchase option 5. User is then directed to a page where customer info, items being purchased and its quantity is entered 6. User then enters the data 7. User then clicks the save button 8. User is then redirected to main menu page |

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| --- | --- |
| Use Case Name | Viewing a list of all invoices for assigned route and also the details of individual invoice |
| Related Requirements | -- |
| Goal | Successfully viewing all invoices for assigned route |
| Pre-Conditions | User must have app |
| Successful | Successful in viewing the invoices |
| Fail End Condition | Unsuccessful in viewing the invoices |
| Primary Actor | Driver |
| Secondary Actor | Manager |
| Main Flow | 1. User opens application 2. User enters credentials 3. User is directed to main menu 4. User then selects the view list of all invoices options 5. User is directed to a page that displays a list of all invoices for the day 6. If the user wants to view an individual invoice, user simply clicks on the invoice to view it. |

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| --- | --- |
| Use Case Name | View details of one invoice |
| Related Requirements | -- |
| Goal | Successfully view an invoice |
| Pre-Conditions | Must know the name of the company invoice is associated with |
| Successful | Successful in viewing the invoice |
| Fail End Condition | Unsuccessful in viewing the invoice |
| Primary Actor | Driver |
| Secondary Actor | Manager |
| Main Flow | 1. User opens application 2. User enters credentials 3. User is directed to main menu 4. User then selects the view invoice for one customer option 5. User is then prompted to enter the customer name 6. Invoice for customer for current day is retrieved and made available for the user |

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| --- | --- |
| Use Case Name | Print invoice |
| Related Requirements | -- |
| Goal | Print invoice successfully |
| Pre-Conditions | Must know the customer name in order to find the correct invoice to print |
| Successful | Invoice was printed successfully |
| Fail End Condition | Invoice encountered an error and was not printed |
| Primary Actor | Driver |
| Secondary Actor | Customer |
| Main Flow | 1. User opens application 2. User enters credentials 3. User is directed to main menu 4. User then selects the view list of all invoices option or the record a cash purchase option or the view one invoice option 5. User then views required invoice 6. User then verifies information and clicks the print button. |

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| --- | --- |
| Use Case Name | Syncing outstanding transaction with database |
| Related Requirements | User must be logged on |
| Goal | Successfully syncing with database |
| Pre-Conditions | Must have an internet connection |
| Successful | Successful in syncing with database |
| Fail End Condition | Unsuccessful in syncing with database |
| Primary Actor | Driver |
| Secondary Actor | Manager |
| Main Flow | 1. User opens application 2. User enters credentials 3. User is directed to main menu 4. User clicks sync button |

## Resource Diagrams

**Resource Diagram: Invoices**

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| --- | --- | --- | --- |
| Action | Input Parameter | Output | Description |
| Get | Customer name, token | Invoice number, customer number, items | A list of items of invoice for a customer is returned |
| Post | Operation, token | A JSON object with a string to show status of request | Operation can be equal to recording returns for an order |
| Put | Customer name, items, date, token | A JSON object with a string to show states of requests. | Invoice is added to the invoices table of the database. |
| Delete | Invoice day, token | A JSON object with a string to show states of requests | Delete all |