DFD Examples

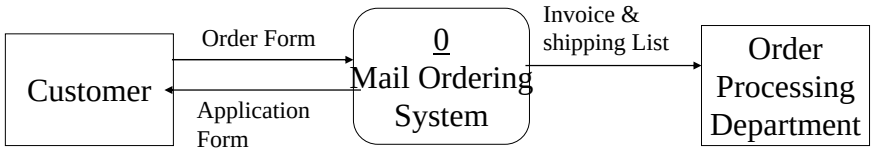
Example1: Mail Ordering System

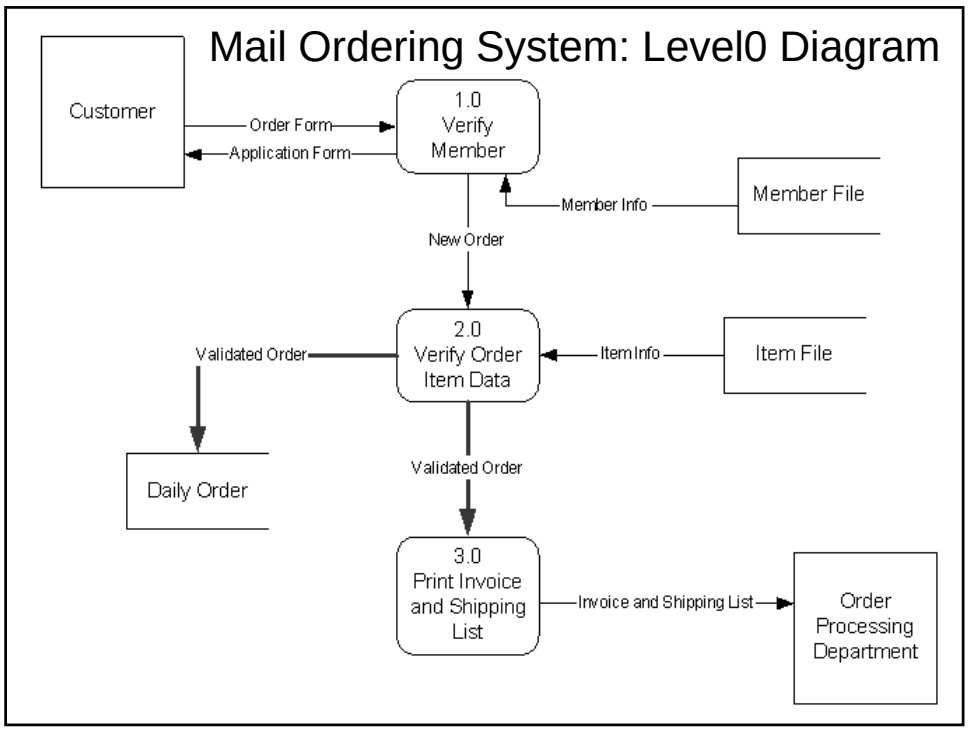
- Consider a mail order company that distributes CDs and tapes at discount prices to its members.
- When an order processing clerk receives an order form, she verifies that the sender is a member by checking the MEMBER FILE.
- If the sender is not a member, the clerk returns the order along with a membership application form.
- If the customer is a member, the clerk verifies the order item data by checking the ITEM FILE.
- Then the clerk enters the order data and saves it to the DAIILY ORDERS FILE.
- At the same time the clerk also prints an invoice and shipping list for each order, which are forwarded to the ORDER FULFILLMENT DEPARTMENT for processing there.

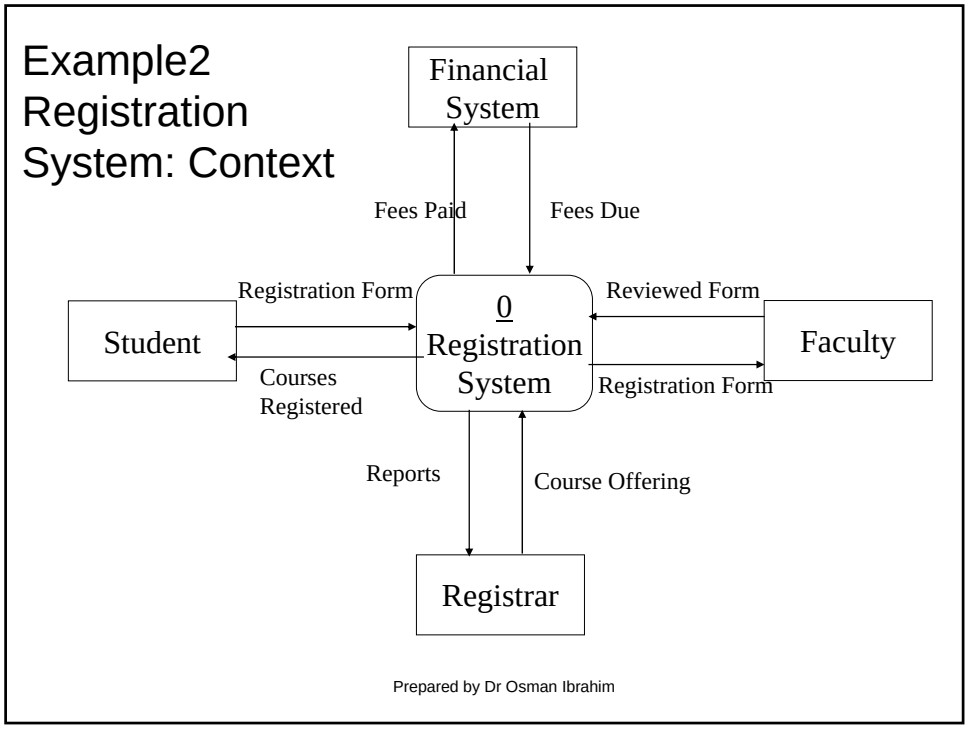
Example1: Mail Ordering System

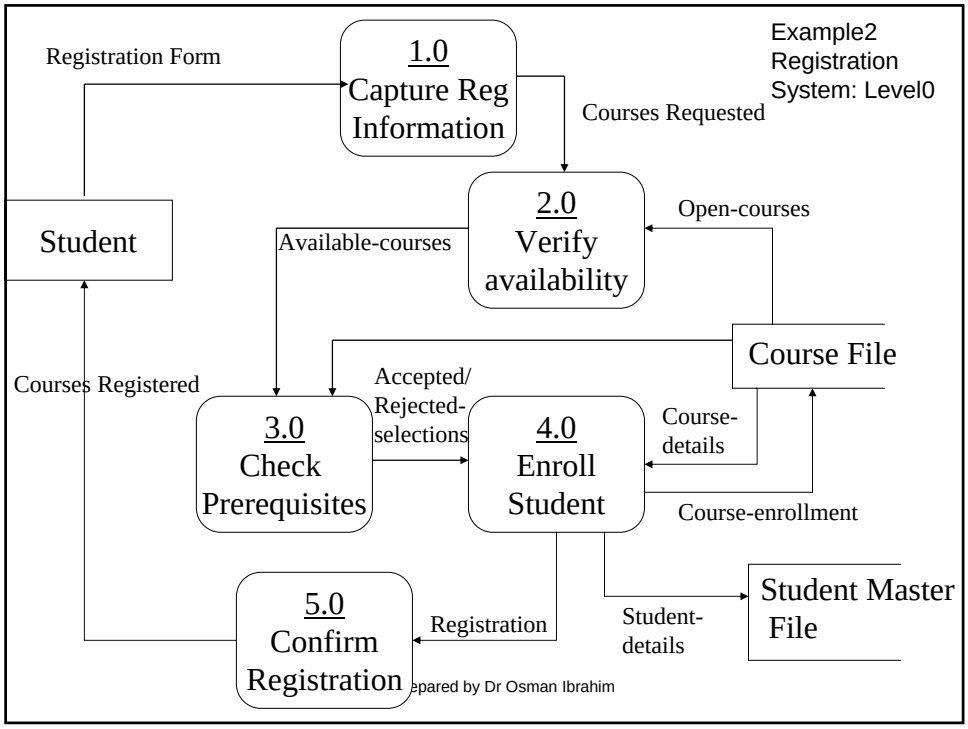
- **A mail order company that distributes CDs and tapes at discount prices to record club members (tells the purpose of the system).**
- **When an order processing clerk receives an order form (data flow), she verifies (process #1) that the sender is a club member by checking the MEMBER FILE (data store). If the sender is not a member, the clerk returns the order along with a membership application form (data flow).**
- **If the customer is a member, the clerk verifies the order item data (process #2) by checking the ITEM FILE (data store).**
- **Then the clerk enters the order data (data flow) and saves it to the DAILY ORDERS FILE (data store).**
- **At the same time the clerk also prints an invoice and shipping list (data flow) for each order (process #3), which are forwarded to the ORDER FULFILLMENT DEPARTMENT (external entity) for processing there.**

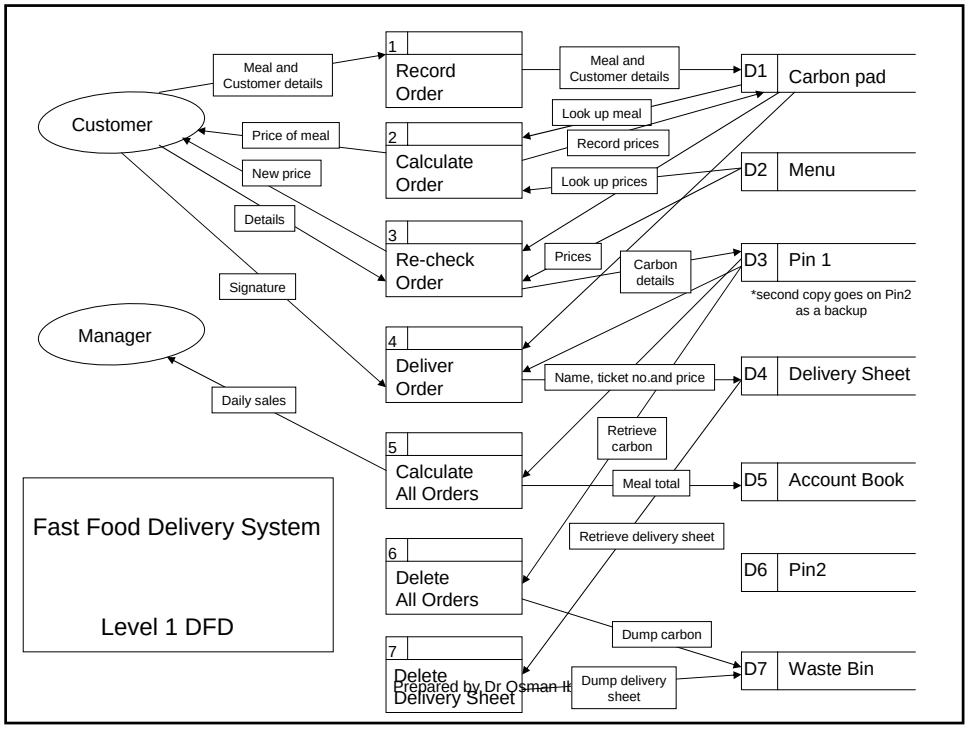
Mail Ordering System: Context Diagram




Mail Ordering System: Level0 Diagram
Customer
Order Form
Application Form
1.0
Verify
Member
Member Info
Member File
New Order
2.0
Verify Order
Item Data
Validated Order
Item Info
Item File
Daily Order
Validated Order
3.0
Print Invoice
and Shipping
List
Invoice and Shipping List
Order
Processing
Department

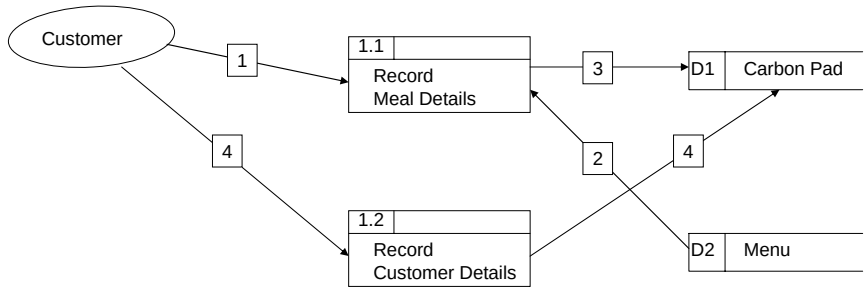

Example2
Registration
System: Context
Financial
System
Fees Paid
Fees Due
Registration Form
Reviewed Form
Student
0
Registration
System
Faculty
Courses
Registered
Registration Form
Reports
Course Offering
Registrar
Prepared by Dr Osman Ibrahim


Example2
Registration
System: Level0
Registration Form
1.0
Capture Reg
Information
Courses Requested
Student
2.0
Verify
availability
Open-courses
Available-courses
Course File
Courses Registered
Accepted/
Rejected-
selections
3.0
Check
Prerequisites
4.0
Enroll
Student
Course-
details
Course-enrollment
5.0
Confirm
Registration
Registration
Student-
details
Student Master
File
epared by Dr Osman Ibrahim


Customer
Manager
Meal and
Customer details
Price of meal
New price
Details
Signature
Daily sales
1
Record
Order
2
Calculate
Order
3
Re-check
Order
4
Deliver
Order
5
Calculate
All Orders
6
Delete
All Orders
7
Delete
Delivery Sheet
Meal and
Customer details
Look up meal
Record prices
Look up prices
Prices
Carbon
details
Name, ticket no.and price
Retrieve
carbon
Meal total
Retrieve delivery sheet
Dump carbon
Dump delivery
sheet
D1
Carbon pad
D2
Menu
D3
Pin 1
*second copy goes on Pin2
as a backup
D4
Delivery Sheet
D5
Account Book
D6
Pin2
D7
Waste Bin
Fast Food Delivery System
Level 1 DFD
Prepared by Dr Osman Ib

Current System – Level 2

Process 1 – Record Order Details



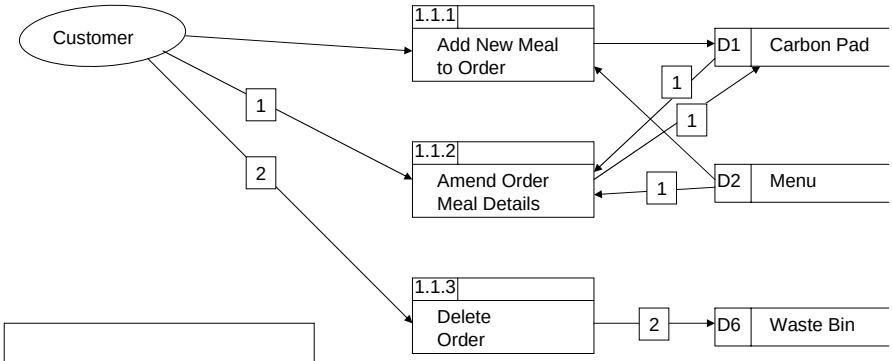
Fast Food Delivery System

Level 2 DFD

Notes:
Customer gives meal details (1) and prices are looked up (2) in the menu before being added (3) to the carbon pad. Customer details such as address etc. are then added (4) to the carbon pad.

Current System – Level 3

Process 1.1 – Record Meal Details

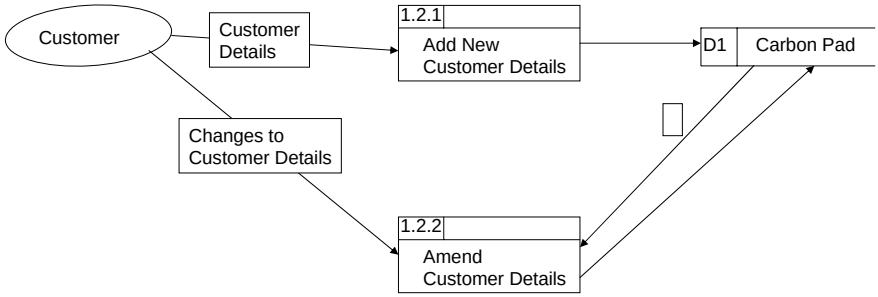


Fast Food Delivery System

Level 3 DFD

Notes:
During a call the customer can simply add meals to her or his order which go straight onto the carbon pad. However, they could also change their mind (1) in which case new prices need to be looked up and the original carbon entry changed. They may even want to cancel the order (2). Level 2 UNCHANGED data flows are shown in blue

Current System – Level 3 Process 1.2 – Record Customer Details

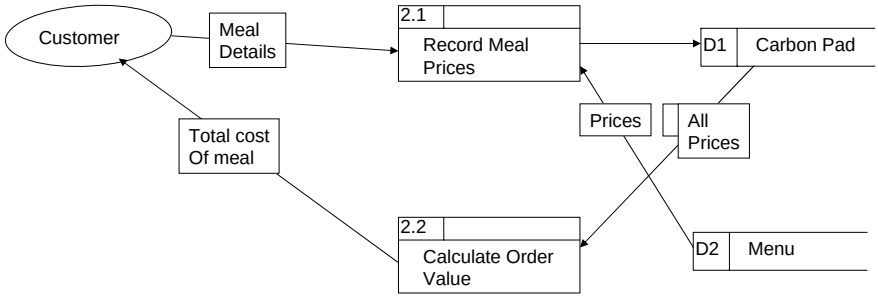


Fast Food Delivery System

Level 3 DFD

Notes:
During a call the customer's details – name, address etc. are added to the carbon pad. However, during the call it may be necessary to amend their details (for example, if the telephone operator has misheard the original details. Level 2 UNCHANGED data flows are shown in blue

Current System – Level 2 Process 2 – Calculate Order Value



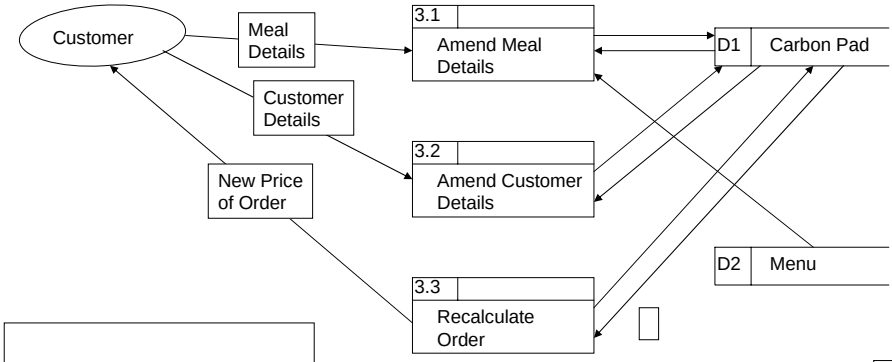
Fast Food Delivery System

Level 2 DFD

Notes:
During a call individual meal prices are looked up in the menu and added to the carbon pad. On completion of an order the prices of all ordered meals, on the pad, are added together to give the total cost of the meal. This is then relayed to the customer.

Current System – Level 2

Process 3 – Re-check Order



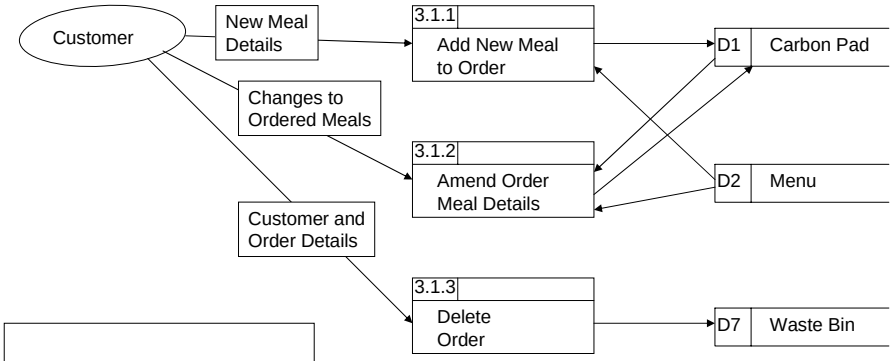
Fast Food Delivery System

Level 2 DFD

Notes:
After an order is complete the customer may ring up to check they have given the correct details or to amend an order. In this case details on the carbon pad are checked and amended as necessary before the customer is given the new price of the order.

Current System – Level 3

Process 3.1 – Amend Meal Details



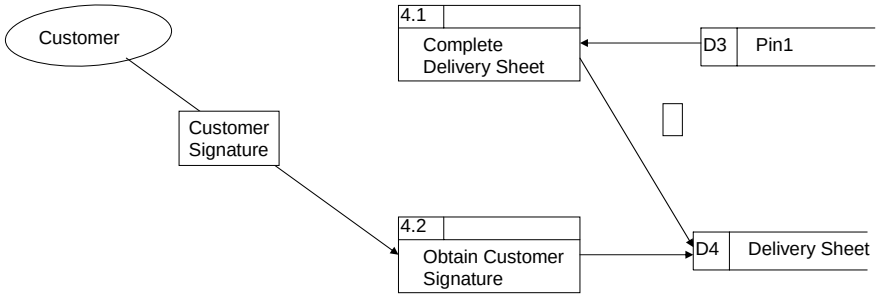
Fast Food Delivery System

Level 3 DFD

Notes:
After an order has been taken the customer may telephone to amend order details. She could ask to add new meals or amend meals and prices will have to be looked up in the menu. Or, she can cancel the order in which case it is consigned to the waste bin.

Current System – Level 2

Process 4 – Deliver Order



Fast Food Delivery System

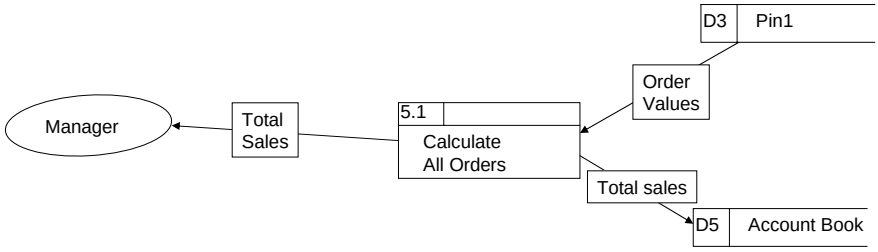
Level 2 DFD

Notes:
When the order is ready for delivery the carbon on Pin1 is used to complete the drivers delivery sheet – customer details, cost of order. On delivery of the order the customer is asked to sign the delivery sheet.

Prepared by Dr Osman Ibrahim

Current System – Level 2

Process 5 – Calculate All Orders



Fast Food Delivery System

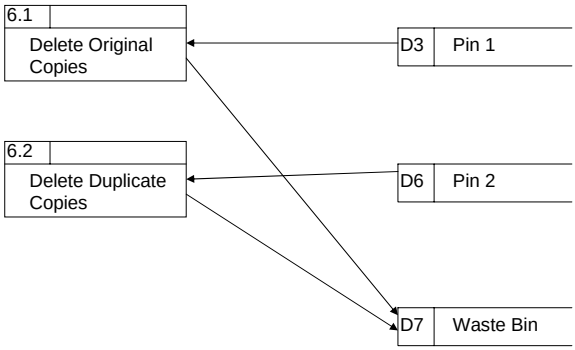
Level 1 DFD

Notes:
At the close of business all orders that have been taken during the day (carbons) are taken from Pin 1 and the total value of daily business is calculated manually (using a calculator) by the Accounts person. This information is passed onto the restaurant manager.

Prepared by Dr Osman Ibrahim

Current System – Level 2

Process 6 – Delete All Orders



Fast Food Delivery System

Level 2 DFD

Notes:
At the close of business all original and duplicate copies of orders (carbons) are removed from the pins and disposed of.