



RESTAURANT MANAGEMENT SYSTEM

RESTAURANT MANAGEMENT SYSTEM



Topic & Application

- DSA
- Innovative Assignments

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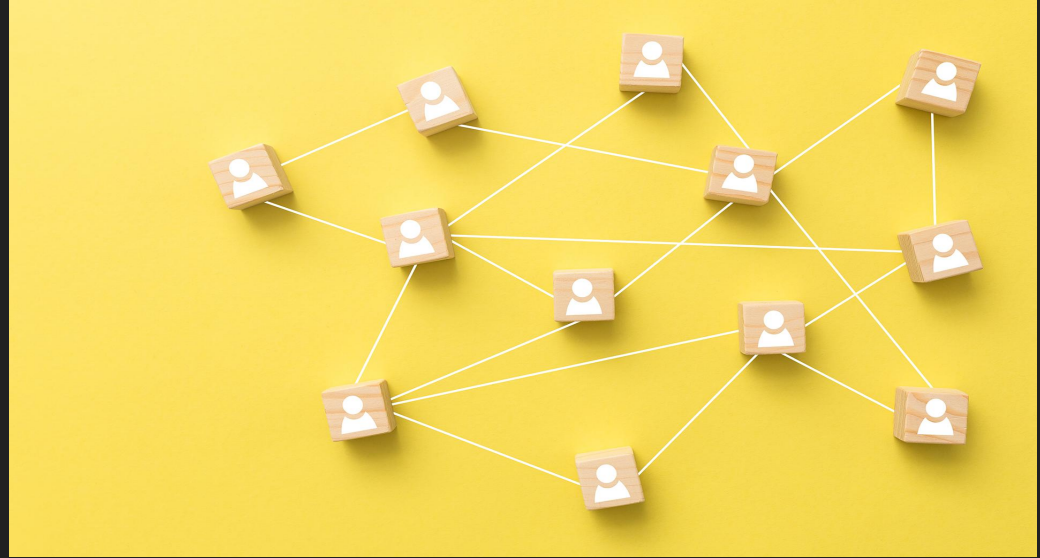
Topic Introduction



So what is a restaurant management system and what makes it good?

A restaurant management system is a collective term for software that helps streamline food business operations. Namely, restaurants, bars, bakeries, cafes, cloud (dark, virtual, ghost) kitchens, food trucks or delivery businesses.

Benefits of RMS



- Track Sales And Orders
- View accurate, real time financial statements
- Access data easily and faster

Features

EASY HANDLING

Restaurant management system is designed to handle all the primary information required to calculate such as final bills, total sales during the entire day.

INTERACTIVE

The main purpose of the Restaurant Management System is to reach to wider range of customers and to educate them about existing and new items Offered by restaurant.

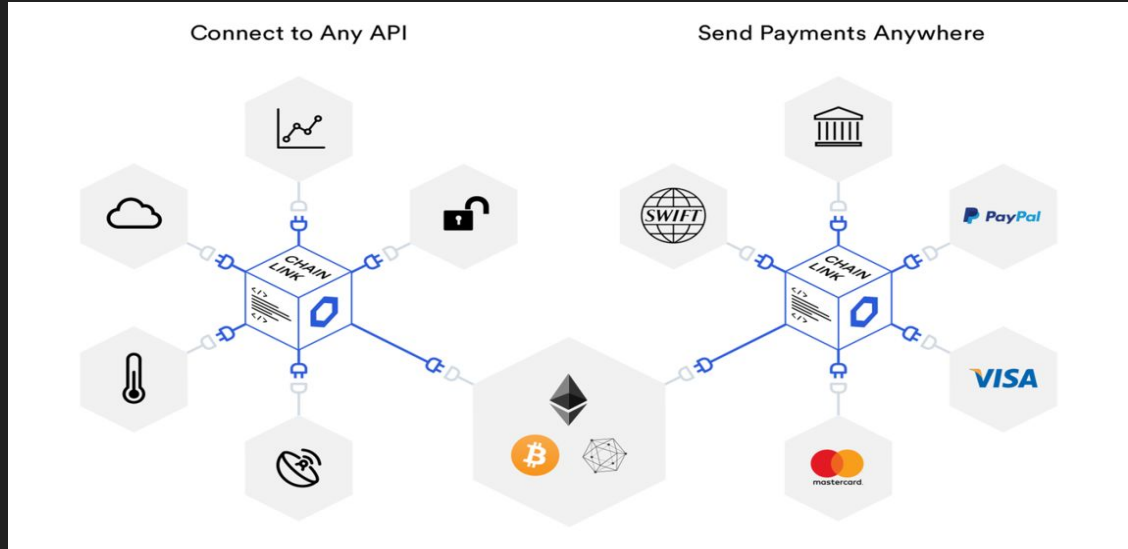
LINKED LIST AS DATABASE


As we will using linked list as database in this Restaurant Management System we will have all linked list advantages such as we can grow or shrink it any time as per our menu as it is a dynamic data structure.



Applications in Real World

- Image Viewer
- Previous and next page in web browser
- Music player





Array vs Linked List

Array

BOTH USED TO STORE LINEAR DATA OF
SIMILAR TYPES.

Linked List

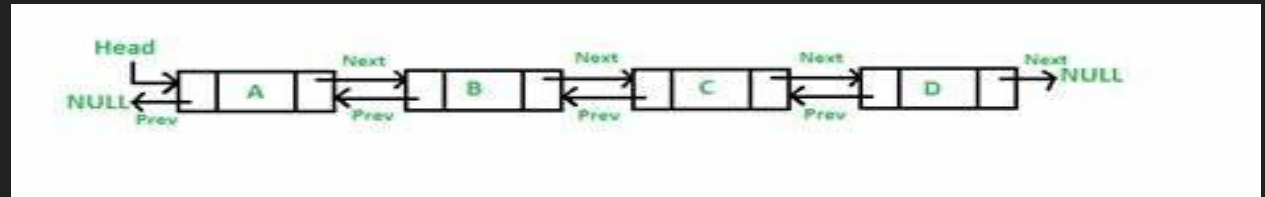
PRIMITIVE-NON PRIMITIVE
INSERTION AND DELETION
FIXED SIZE- DYNAMIC
INDEXES

Doubly Linked List

CONCEPT USED

Representation

```
Struct node
{
    Int data;
    Struct node*next;
    Struct node*prev;
};
```



TRAVERSAL

A DLL can be traversed in both forward and backward direction.

INSERTION

We can quickly insert a new node before a Given node.

DELETION

The delete operation in DLL is more efficient if Pointer to the node to be deleted is given .

Advantages

Over singly LL



Disadvantage Over singly LL

Extra space

FOR PREVIOUS POINTER

- Every node of DLL Require extra space for an previous pointer. It is possible to implement DLL with single pointer though.
- All operations require an extra pointer previous to be maintained.



Application

HARDWARE & SOFTWARE TO BE USED

1. Hardware required

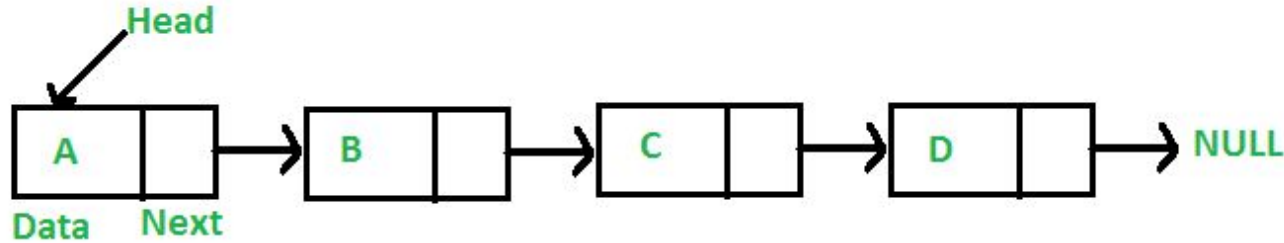
- 256 MB RAM
- At least 2 GB Hard Disk

2. Software required

- C compiler
- Windows XP Higher Version Of Windows

Applications of Linked List

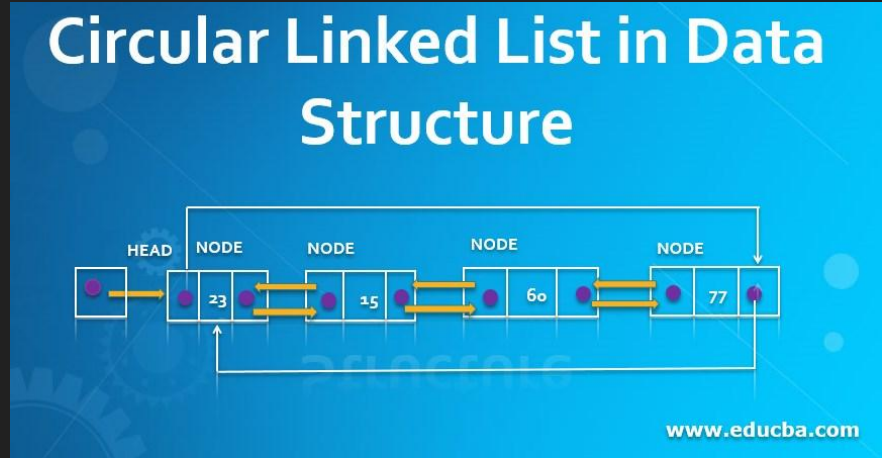
A linear data structure



A linked list is a linear collection of data elements whose order is not given by their physical placement in memory

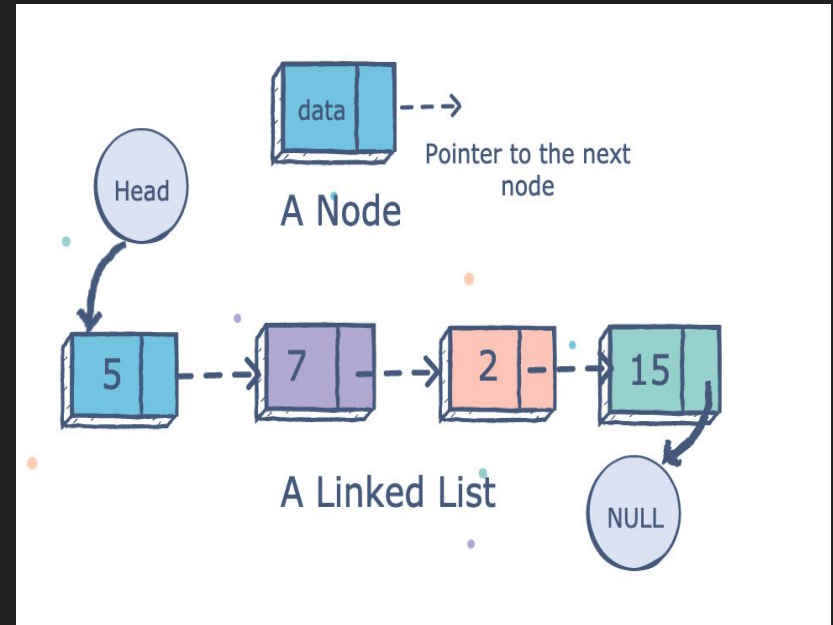
Applications of Circular Linked List

- Implementation of Queue
- Multiple Applications are running on pc
- Advanced data Structures



Applications In Computer Science

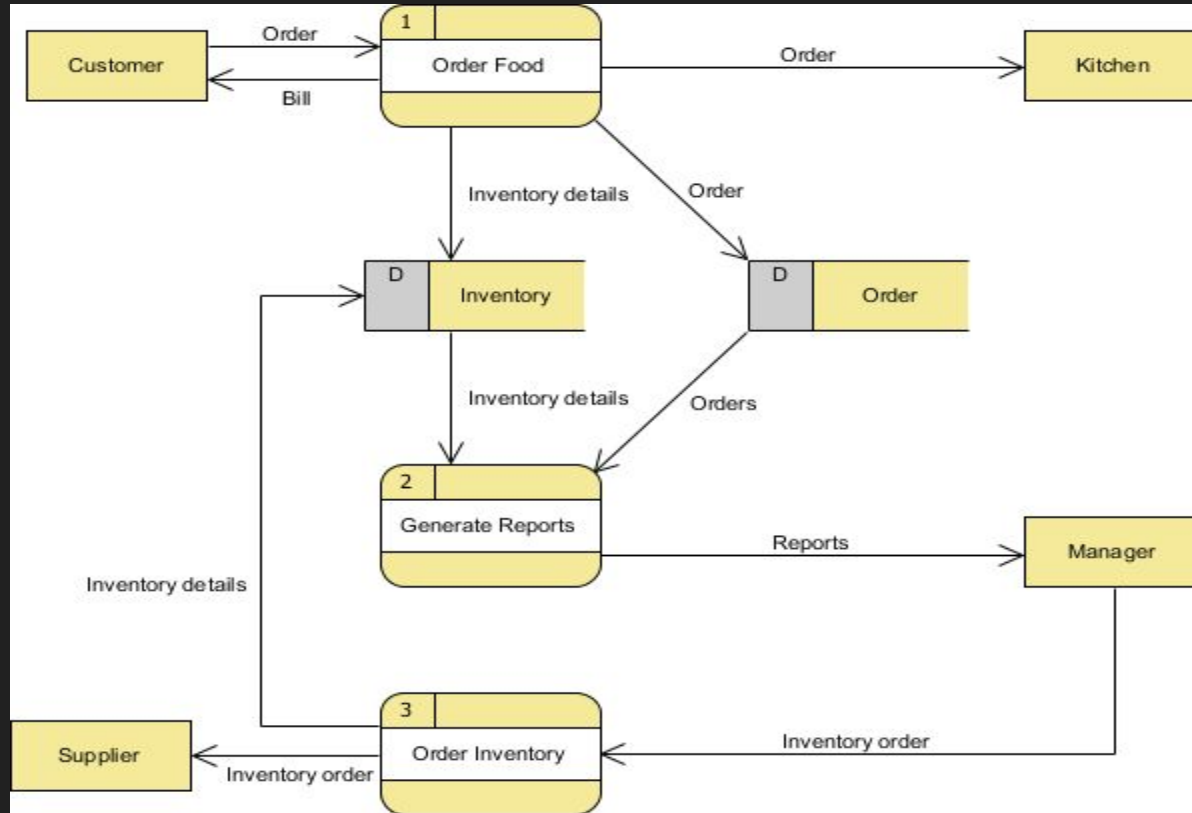
- Implementation of stack and queues
- Implementation of graphs
- Dynamic Memory Location
- Maintaining directory of names
- Performing arithmetic operations on long integers
- Manipulation of polynomials
- Representation of Sparse matrix



Conclusion

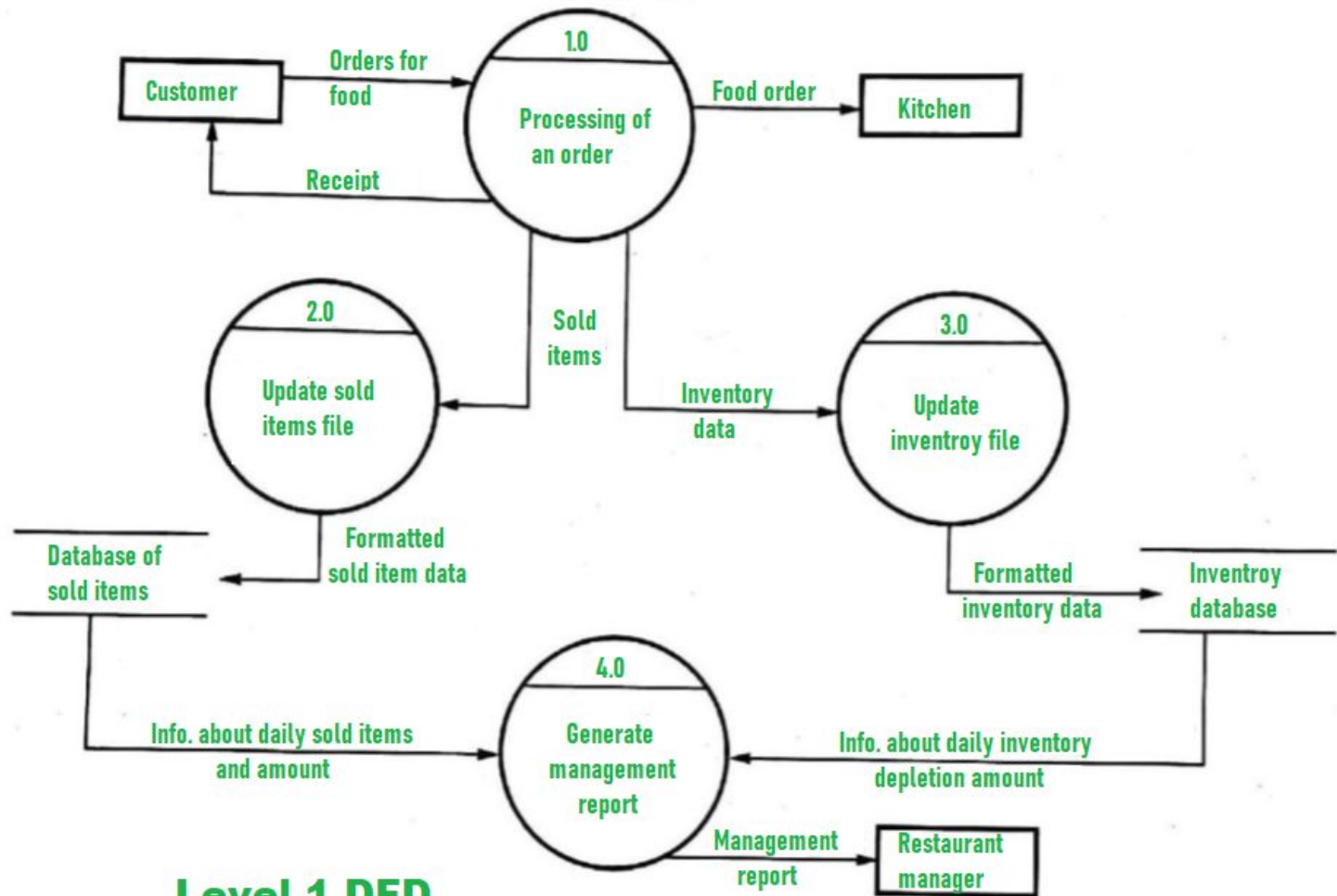
- Restaurant management database is an approach to effectively manage the data of a restaurant.
- A good database can be easily understood and the relationships between various customers and the management team can be easily depicted.
- The proposed restaurant management system is time saving and error free as compared to the traditional systems. This system attracts customers and also adds the efficiency of maintaining the restaurants ordering and billing.

FLOW CHART



BIBLIOGRAPHY

- You tube
- Wikipedia
- Geeks for Geeks



THANK YOU :)

- AYUSH SHARMA
- ASHUTOSH SHUKLA