

Q-1. what is stack & write push and pop operation with algorithm.

Ans. Definition of stack:- stack एक विशेष प्रकार का linear Data structure है जो कि LIFO (Last in first out) के सिद्धान्त पर कार्य करता है। अर्थात् वह item जो कि सबसे अंत में add किया जाता है उसे सबसे पहले remove कर दिया जाता है। तथा जो item सबसे पहले add किया जाता है उसे सबसे अंत में remove किया जाता है।

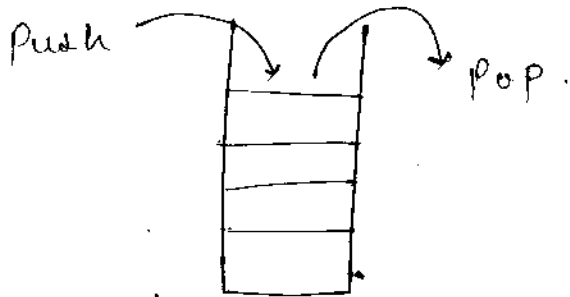


fig. stack.

Stack में दो operation होते हैं। push तथा pop जब stack में item को insert किया जाता है तो वह push operation कहलाता है। जब stack से item को delete किया जाता है तो वह pop operation कहलाता है।

Algorithm.

1) push operation:- push operation element को top of the stack पर push करता है।

a) [check overflow condition].
if (Top >= stack size) then print the stack is full and exit.

b) [insert element in new top position] S[Top] = item

c) [increment the pointer value Top by one]

d) end. Top = Top + 1.

2) pop operation:- The pop operation delete or remove the top most item from the stack.

a) [check whether the stack is empty].
if (Top <= 0)

b) [Decrement Top by one]

Top = Top - 1.

c) [Assign Top element to item]

item = S[Top]

d) [Return top most item from stack]
return (item)

Write short-note.

Circular queue :- Circular queue को हम ring buffer भी कहते हैं। Circular queue में जो अंतिम नोड होता है वह सबसे पहले नोड से जुड़ा हुआ रहता है। जिससे कि Circle का निर्माण होता है। यह FIFO के सिद्धान्त पर कार्य करता है। Circular queue में item को rear-end से add किया जाता है तथा item को front-end से remove किया जाता है।

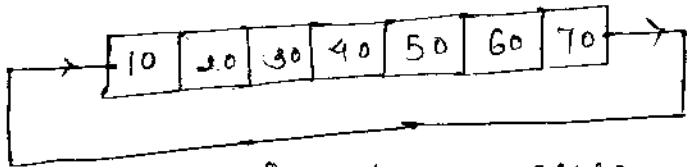


fig. Circular queue.

2) **Double Ended queue** :- इसे deque भी कहते हैं। Dequeue एक ऐसा data structure है जिसमें हम item को front तथा rear-end दोनों से add भी कर सकते हैं और remove भी कर सकते हैं। Dequeue के दो प्रकार होते हैं।

1) Input-restricted Dequeue.

2) Output-restricted Dequeue.

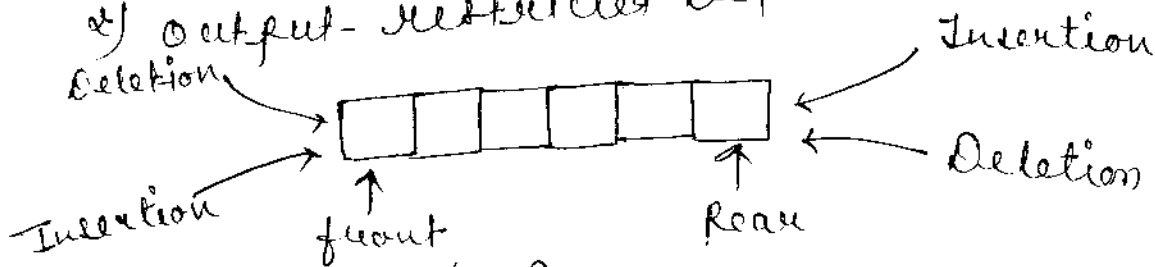


fig. Dequeue.

3) **Multi-queue** :- In multi queue, representation of priority queue for each priority, a queue is maintained. The queue corresponding to each priority can be represent in the same array of sufficient size. For each queue, two variable front and rear are maintained.

Infix expression change into postfix.

$$(a+b) * (c+d) / (e+f)$$

Step I $(a+b) * (c+d) / (e+f)$

Step-II $(a+b) * (c+d) / (e+f)$

Step-III $(a+b) * (c+d) (e+f) /$

Step-IV $(a+b) (c+d) * (e+f) /$

$$a+b+c+d * e+f /$$

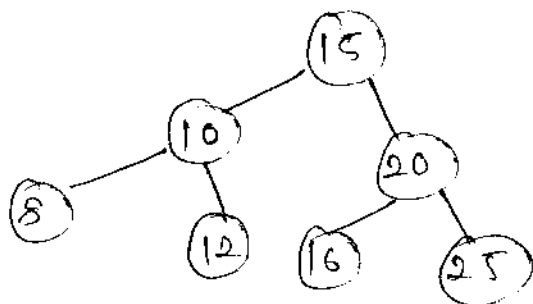
Q. 4. Binary tree की संज्ञा में लिखिए

Ans. Binary tree :- Data structure में binary tree वह tree है जिसमें प्रत्येक node के केवल अधिकतम दो children होते हैं। जिन्हें left child और right child कहा जाता है। जो root node होता है वह सबसे ऊपरी node होता है।

Steps to construct binary tree.

- 1) सबसे प्रथम element को root node considered किया जाता है।
- 2) Next element को root node से compare किया जाता है यदि element root node से छोटा होता है तो उसे left sub tree में insert किया जाता है।
- 3) यदि next element root node से बड़ा है तो उसे right sub tree में insert किया जाता है।

eg. 15, 10, 8, 12, 20, 16, 25



Q.1/ What do you mean by constructors and destructors?

Ans:- CONSTRUCTORS → A constructor is a special member function for automatic initialization of an object. Whenever an object is created, the special member function, i.e. the constructor will be executed automatically. A constructor function is different from all other nonstatic member functions in a class because it is used to initialize the variables of whatever instance being created. Note that a constructor function can be overloaded to accommodate many different forms of initialization.

Or we can define constructors in shorts as:-

“A member function with the same name as its class is called constructor and it is used to initialize the objects of that class type with a legal initial value. The following examples illustrate the constructor declaration in a class definition:-

```
(1) class employee {
    private:
        char name[20];
        int ecode;
        char address[20];
    public:
        employee();
        void getdata();
        void display();
        ?;
        employee()::employee(); {
            ?
```

atically during the destruction of an object actions
ed in the destructor include the following:-
recovering the heap space allocated during the lifetime
an object.

- a) closing file or database connections.
- (c) Releasing network resources.
- (d) Releasing resource locks.
- (e) other Housekeeping tasks.

The following examples illustrate the destructor function
declaration in a class definition:-

```
(1) class employee {  
    Private:  
        char name [20];  
        int ecode;  
        char address [20];  
    Public:  
        employee();  
        ~employee();  
        void getdata();  
        void display();  
};
```

Q.2 what do you mean by friend function?

Ans A friend function is a non member function that's
granted access to a class's Private and Protected members
and a friend class is a class whose member functions
can access another class's Private and Protected members.
There are three levels of internal protection for the different
members of a class public, protected and private. In case of

ers Protected and private. these could not be accessed from outside the same class at which they are defined. we can allow that an external function gain access to the protected and private members of the class. we can define functions to be friend of a class to allow them direct access to it's private data members.

The keyword friend is used in function declaration.

The functions that are declared with the keyword friend are known as friend function. A function can be declared as a friend in any number of classes.

Syntax:-
friend return type functionname (parameter)
 {
 function body
 }

Q.3 what is difference between Structure and classes?

- | Ans:- Structure | classes |
|---|--|
| 1. Structures contains one or more data items (called members) which are grouped together as a single unit. | 1. A class is similar to a Structure data type but it consists of not only data elements but also functions which are operated on the data elements. |
| 2. In a Structure, all elements are public by default. | 2. The data and functions can be defined in a class as a one of the sections such as private, public and protected. |
| 3. Function defined within a structure may or may not have a special relationship to its members. | 3. Function defined within a class have a special relationship to the member data and member functions. |

General Syntax for structure is:-
struct user_defined_name
{
member1;
member2;
membern;
};

4. General Syntax of the CLASS construction is:-
class user_defined_name
{
private:
data-type members
implementation operations
list of friend functions
public:
data-type members
implementation operations
protected:
data-type operations
implementation operations
};
class user_defined_name
variable1, variable2, variablen

5. In structure the keyword typedef is required.

5. In class the keyword typedef not required since a class name is a type of name.

Q. 4 what do you mean by function overloading?

Ans:- Function overloading → Function overloading is a logically method of calling several functions with different arguments and data types that perform basically identical things by the same name.

Example:- float divide(int a, int b);
float divide(float x, float y);

That is divide() taking in two int arguments is different from divide() taking two float arguments. This is known as function overloading.

Q-1 Explain the following Unix Commands

i) Cat ii) Chmod iii) CS iv) Pwd v) Rmdir

Cat - This command is mainly used to display the contents of a file.

Syntax \$ cat college.txt ↵

This command will show the contents of college files on screen.

Cat is also useful for creating a file.

Ex: ↵

\$ cat > college ↵

When the command line is terminated with Enter, the prompt vanishes. Cat now wait to take input from the user.

ii) Chmod :- The chmod command is used to set the permissions of one or more files for all three categories of users (user, group and others). It can be set only by the user (owner) and the superuser.

Ex: ↵

\$ chmod 666 college ↵

This command gives

-rw-rw-rw 1

5 - This Command Shows the list of files in a directory.

\$ ls ↵

\$ ls -l ↵ (This option shows the attributes of file like its permissions, size and ownership details)

iv) pwd - This Command is used to know what your current directory is.

\$ pwd ↵

/home/Kumar

pwd displays the absolute path name.

v) MKDIR - Directories are created with the mkdir Command.

eg \$ mkdir Ram ↵

It will create directory with name Ram.

Q-2 What is vi editor. Explain different modes of vi-editor.

Ans - It is an editor used in Unix systems for editing files. vi editor uses a number of internal commands to navigate to any point in a text file and edit the text there. It also allows to copy and move text within a file and also from one file to another.

There are three modes of vi-editor

1) Command mode - The default mode of the editor where every key pressed is interpreted a command to say on text we should have in this mode to copy and delete text

Input mode - Every key pressed after switching to this mode actually shows up a text. This mode is invoked by pressing 'i' key.

iii) ~~ex~~ ex mode - This mode is used to handle files and perform substitutions.

Pressing a ':' in the Command mode invokes this mode. We can then enter an ex command mode followed by [Enter]. After the command is run, you are back to the default Command mode.

Q-3. Explain the procedure of search and replace and moving text from one ~~place~~ ^{place} to another in vi editor.

Ans - Vi offers substitution feature, which is achieved with the ex mode 's' (Substitute) command. The syntax is:

: address / source-pattern / target-pattern / flags.

The source-pattern here is replaced with target-pattern in all lines specified by address. The address can be one of a pair of numbers, separated by comma.

Moving text from one ~~place~~ ^{place} to another -

Text movement requires that to put the text at a new location with P or p. Vi uses two commands for all put operations that follow delete or copy operation. The significance of P and p depends on whether they are used on parts of lines or complete lines.

7 Explain the following.

- i) BC
- ii) Cal
- iii) who
- iv) Kill
- v) Date

i) BC - This is a calculator provided by Unix when we make bc without arguments, the cursor keeps on blinking and nothing seems to happen. bc belongs to a family of commands that expect input from the keyboard when used without argument.

```
$ bc
12+5
17
```

ii) Cal - This command is used to see the calendar of any specified month of a complete year. If it is used without arguments, it shows the calendar of current month.

```
$ Cal
```

It will show the calendar of Feb 2017

```
Feb $ Cal 03 2006
```

It will show the calendar of March 2006.

iii) who: The who command displays the list of users who are currently logged in.

User Names	Device names	Date of login	Time of login
root	console	Aug 1	07:51
Kumar	pts/0	Aug 1	07:55
Shantanu	pts/8	Aug 1	07:51

iv) kill - The kill command sends a signal, usually ^{with} the intention of killing one or more processes

```
$ kill 105
```

terminates the job having PID 105.

Date — We can display the current date with the date command, which shows the date and time to the nearest second.

\$ date

wed Feb 6 16:22:32 IST 2017

Attempt any 3 questions Maximum marks - 15

Q.1 What do you understand by array in VB.Net?

Ans:- Arrays → An array can hold a collection of values of the same type. The variables in an array are called elements. Array has a name and elements can be accessed by using index or subscript. An array can have single, double and multi dimension. Lower bound of the array for all dimension starts from 0. Upper bound can be defined by using the code. array is a reference type and can be static or dynamic array. The size of dynamic array changes during the execution of the code.

array have two types:-
(1) Static arrays → array can be declared using Dim keyword. you can initialize the values in the array. if array is declared as object type. we can store different type of datatypes so.

Ex:- Dim a(10) as integer.

(2) Dynamic array → we should not provide the size when we declare the array. after the declaration, we cannot change the datatype using redim statement. Preserve keyword is used to preserve the data without losing when changing the dimension of the array. using Redim keyword, only last dimension can be resized.

Ex:- Dim a() as string

Procedure and function:

Procedure & functions: - Procedure and functions are a group of related commands that perform certain tasks and they are called subprograms. These are used for repeated tasks and can be called whenever you need. They are modular in nature and easy to maintain. They are easy to debug also. Any changes to the code. You have to make changes only in procedures, not in each and every place of code. There are four types of procedures in VB.NET. They are Sub, function, event and property procedure. Event procedure are invoked according to the action and they are associated with the controls.

- ① Sub Procedure
- ② Function Procedure
- ③ Event procedure
- ④

Q.3 What do you mean by term inheritance?

Ans: Inheritance -> Inheritance refers to the deriving a new class from the existing class. The derived class is known as subclass and the parent class is known as base class. The derived class inherits all the public and protected data members, methods, events and constants also, but they can not inherit the constructors. In VB.net inherits are used for creating the derived class. If the class is marked as non ~~volatile~~ Inheritable then we can't create a subclass of that class. It is supporting the single inheritance, multilevel inheritance.

hierarchical inheritance. But multiple inheritance supported by only using interfaces.

Key Terms related to inheritance.

2) overriding methods.

Q.4 Difference between Structure and class?

Ans:

(1) class can be inherited from other classes but Structures are not inheritable.

(2) class can have instance constructors with and without parameters but structure can have only parameterized instance constructor.

(3) class is a reference type but structure are value type.

(4) Initialization of the members within the class is allowed. The structure does not allow the initialization of data members within the structure declaration.

(5) Private is the default specifier for the variables and constants in the case of class. all these are public in the structure.

(6) The procedure in the class can handle events but not in structure.

What are the various services provided by data link layer. Explain.

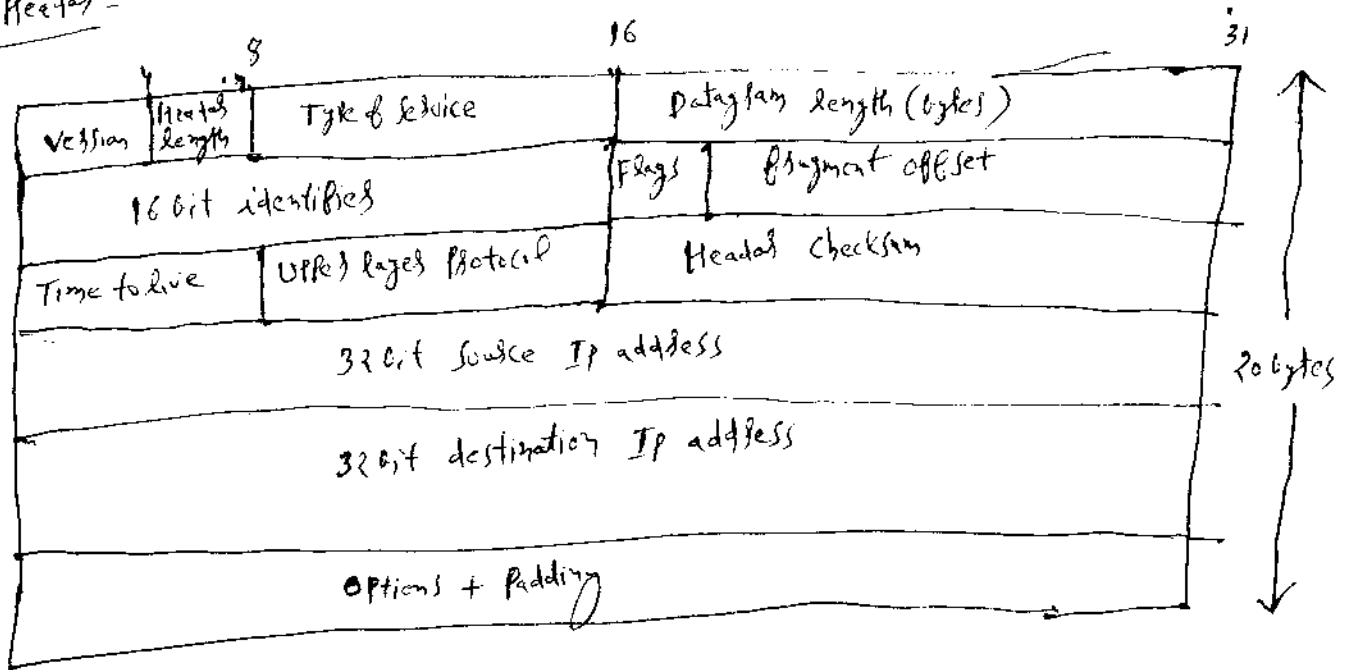
The services offered by data link layer protocol are

- 1) Framing - Almost all link layer protocols encapsulate each network layer datagram within a link layer frame before transmission over the link. A frame consists of a data field, in which network layer datagram is inserted, and a number of header fields.
- 2) Link Access - A Medium Access Control (MAC) protocol specifies the rules by which a frame is transmitted onto the link.
- 3) Reliable delivery - A ~~link~~ link layer reliable delivery service can be achieved with acknowledgements and retransmissions. A link layer reliable delivery service is often used for links that are prone to high error rates.
- 4) Error detection and correction - ~~can~~ Since some errors introduced during transmission are inevitable. The data link layer protocol contains some error control ability to detect and correct errors to maintain high degree of data integrity.
- 5) Flow Control - This is a technique for ensuring that a sender does not overwhelm a receiver with data.
- 6) Data Synchronization - For the receiver to correctly bind ~~to~~ out the boundary of the message that has arrived, a framing technique for acquiring and maintaining synchronization between the transmitted and ~~the~~ receiver is used.

What is IP. Draw its header structure and differentiate between IPv4 and IPv6

Ans- IP- IP is the Internet Protocol. IP is a connectionless protocol and provides datagram service, and IP packets are commonly referred as IP datagrams. IP is a packet switching protocol that performs addressing and route selection.

IP Header - The structure of IP header is shown in fig.



Comparison between IPv4 and IPv6.

IPv4

- 1) Size of IP address is 32 bit
- 2) It supports unicast and multicast addresses
- 3) The header has 20 byte fixed part and a variable length optional part.
- 4) It has TOS field.

IPv6

- 1) Size of IP address is 128 bits
- 2) It supports unicast, multicast and anycast addresses
- 3) A Streamlined 40 bytes header
- 4) IPv6 has an 8 bit traffic class field

What are various design issues considered for network layer. Explain.

Network layer design Issue - The network layer provides services to the transport layer at the network/transport layer interface. The network layer services desired with the following goals.

The service should be independent of the subnet technology.

The transport layer should be shielded from the number, type and topology of the subnet present.

The uniform network addresses are must be made, and available to transport layer across LANs and WANs.

There are two types of services - Connection oriented and Connectionless services.

In Connectionless service subnet is inherently unreliable. The host must do error control and error control them.

In Connection oriented reliable service communication is in both directions and packets are delivered in sequence. flow control is provided to preventing a fast sender from swamping the receiver. Network layer support reliable connection oriented service.

A network may provide either virtual circuits or datagram service.

Virtual circuits - virtual circuits are generally used in subnet whose primary service is connection-oriented. In virtual circuit, when a connection is established, a route from the source machine to destination is chosen as part of the connection setup and remain.

Datagrams - with datagram service, the network only agrees to handle packets ~~independently~~ independently. Each datagram must contain the full destination address, when a packet comes in the router looks through table which outgoing line to use for each possible destination routes and sends the packet on its way.

Attempt Any three

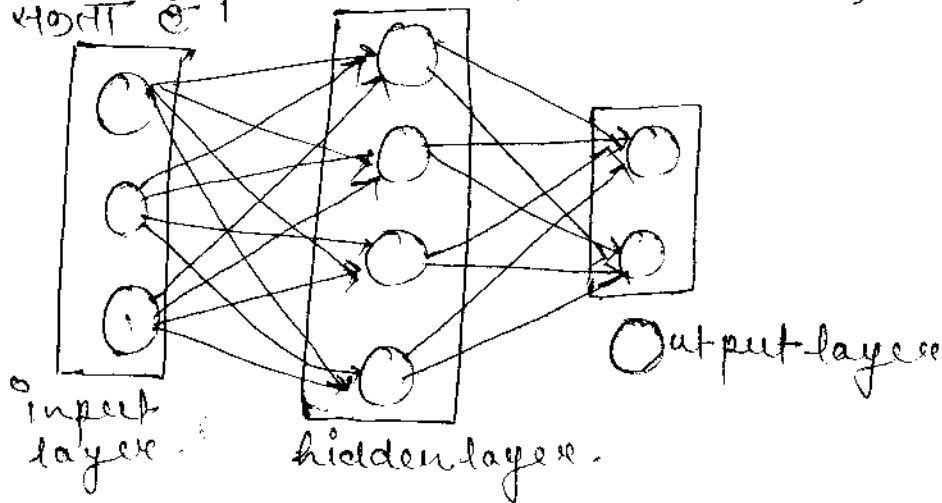
Q.1. Explain Artificial Neural Networks.

Ans Artificial Neural Networks :-

Artificial Neural Networks हैं communication मॉडल होते हैं जो Biological neuron networks के समान ही जैसे, चैन में व्यवहार किया जाता है जो विभिन्न Non linear processing element से बने होते हैं।

एक प्रारंभिक Neural Network में प्रत्येक नोड से संबंधित एक इनिशियल वैल्यू होती है तथा प्रत्येक connection से संबंधित एक वेट वैल्यू होती है।

एक Activation function Nodes की फायरिंग एवं वृद्ध समानता में नेटवर्क के नोड्स के माध्यम से data के प्रसार को नियंत्रित करता है। Network को connection वेट adjustment के माध्यम से उपकरणों के साथ भी हैंड किया जा सकता है।



जिस में प्रत्येक Node एक neuron को प्रभावित करता है और arrows एक neuron की output की तरह तो उसी neuron को दूसरे के लिए input की तरह प्रभावित करता है।

Neural Network nodes का एक समूह होता है। जो कि एक-दूसरे से परस्पर जुड़े रहते हैं Neural Network में nodes का यह समूह उसी प्रकार समान होता है।

Q.2. Difference between data warehouse and data base system?

Ans. Database.

Data warehouse.

1. यह organizational data का अलग-अलग में विस्तृत व्यु प्रदान करता है।
2. यह operational data को store करता है।
3. यह data का two dimensional view प्रदान करता है।
4. यह short frame time के साथ deal करता है।
5. यह data processing के लिए OLTP टूल का प्रयोग किया जाता है।
6. इसमें बहुत few Indexes होते हैं।
7. यह सभी current transactions को maintain and provide करता है।

1. यह organized data का centralized and summarized view प्रदान करता है।
2. यह decision support data को store करता है।
3. यह data का multi-dimensional view प्रदान करता है।
4. यह long time frame के साथ deal करता है।
5. यह data Analytical के लिए OLAP टूल का प्रयोग किया जाता है।
6. इसमें बहुत सारे Indexes होते हैं।
7. इसमें यह जरूरी नहीं है कि यह सभी current transactions को maintain and provide करता है।

5. Explain Decision tree structure.

Ans Decision tree :- Decision tree जैसे nodes को निहित रखते हैं जो एक root tree को निर्मित करता है। शक्ति "root" कहलान वाले node के साथ एक ऐसा directed tree होता है। जिसमें कोई incoming edges नहीं होती है। Decision tree के अन्तर्गत, प्रत्येक internal node, इनस्टेंस स्पेस को input attribute values के निश्चित discrete function के अनुसार दो या दो से अधिक sub space में विभाजित करती है।

eg. यदि किसी customer की उम्र 30 से अधिक या बराबर है- तब customer का लिंग "पुरुष" है- तो customer mail का जवाब देंगे। जिसके परिणामस्वरूप रकम सेल की फिर किसी मानव उपयोजकता पूर्व संभावित रूप से इसकी Accuracy हेतु इसकी दोहोरायता में सुधार करने के लिए संरक्षित किया जा सकता है-

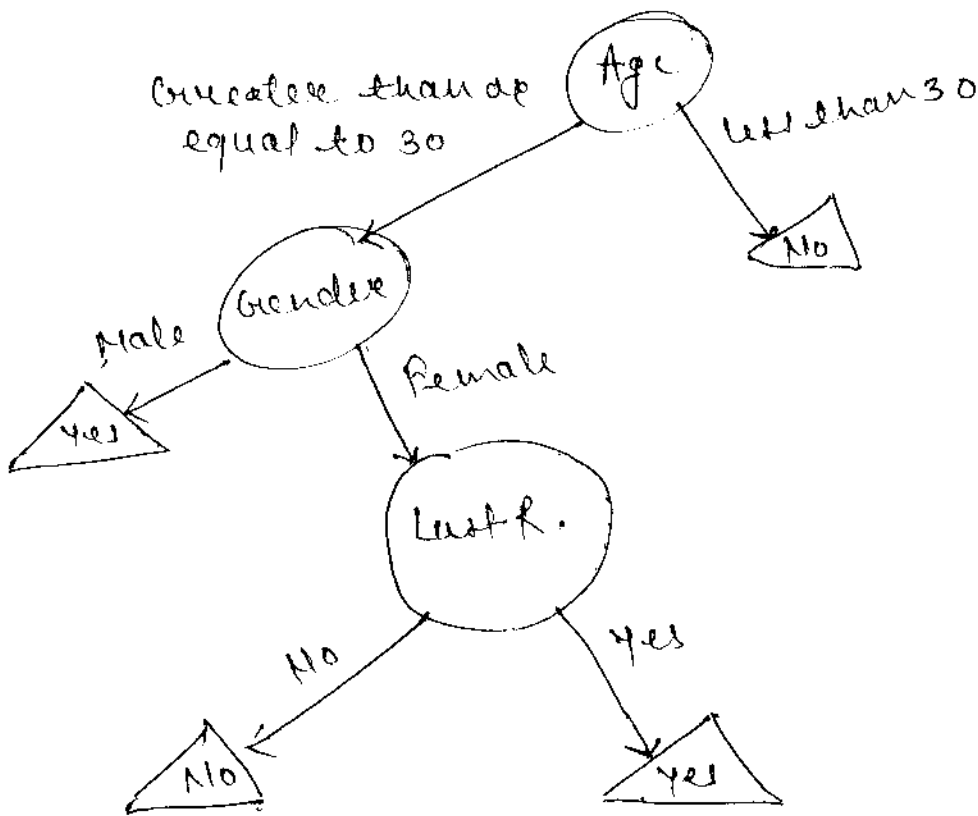


fig. Decision tree.

4. Explain three tier architecture with diagram.

Three Tier Architecture में 3 tier होते हैं।

- 1) client tier.
- 2) Business logic tier.
- 3) Database tier.

इस architecture में क्लाइंट सर्वर को request भेजता है और सर्वर इस request को Database को भेज देता है। फिर database request को भेज देता है। फिर database request को पूरा करने सर्वर को भेजता है तब सर्वर इसको client को वापस भेज देता है।

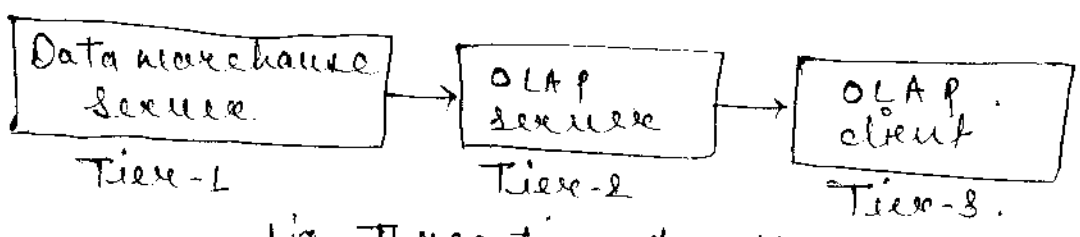


fig. Three tier Architecture.

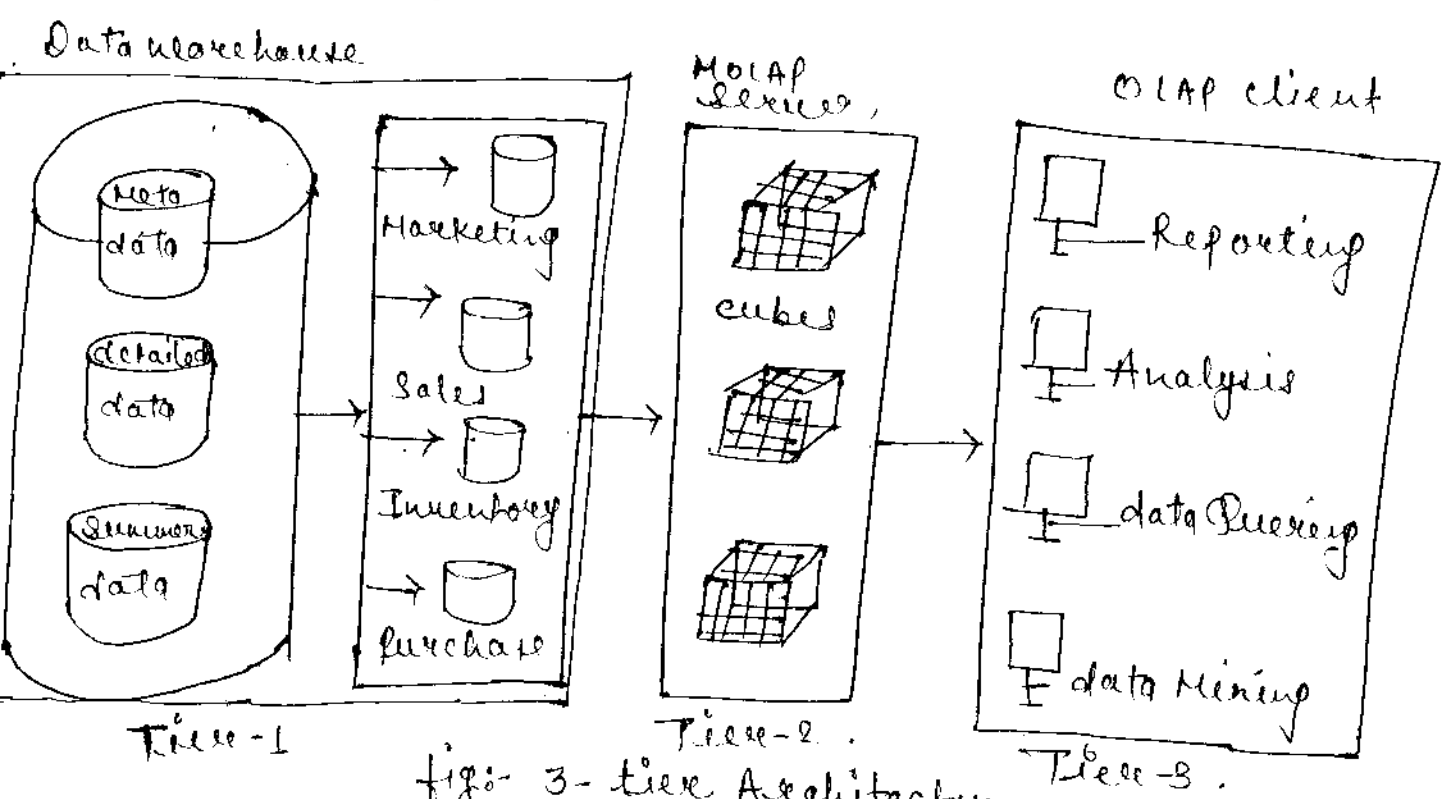


fig: 3-tier Architecture

यह सुजर का 3-tier होता है जहाँ पर front-end जो उन मैनेजर या Knowledge workers को एक user friendly interface प्रदान करते हैं जो OLAP system को Analysis के लिए प्रयुक्त करेंगे। Client application OLAP data को server पर access करते हैं तथा ऑफ-लाइन operation के लिए client computer पर local cubes को multi-dimensional cube files के रूप में store भी किया जा सकता है।

Q-1. What are Firewalls. Explain packet filter with diagram.

Ans. Firewalls guard a ~~computer~~ corporate network by standing between the network and outside world. All traffic between the network and ^{the} Internet in either direction must pass through the firewall. The firewall decides if the traffic can be allowed to flow or whether it must be stopped from proceeding further.

Packet Filter Firewall :- As the name suggests, a packet filter firewall applies a set of rules to each packet and based on the outcome, decides to either forward or discard the packet. It is also called as screening router or screening filter. ~~set~~ a such a firewall implementation involves a router, which is configured to filter the packets going in either direction. The filtering rules are based on a number of fields in the IP and TCP/UDP header, such as source or destination address, IP protocol field, TCP/UDP port numbers.

The idea of packet filter is as follows

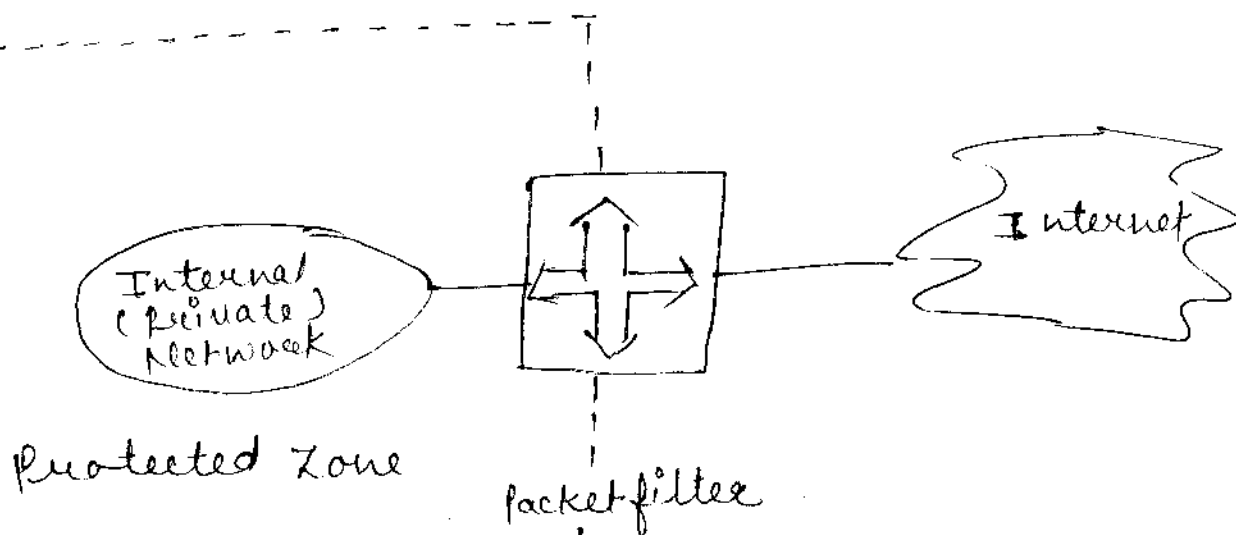


fig. - Packet filter

Packet filter performs the following functions:

Receive each packet as it arrives.

- 1) Pass the packet through a set of rules and according to its decision either to accept or discard packet.
- 2) If there is no match with any rule, take the default action. The default can be discard all packets or accept all packets.

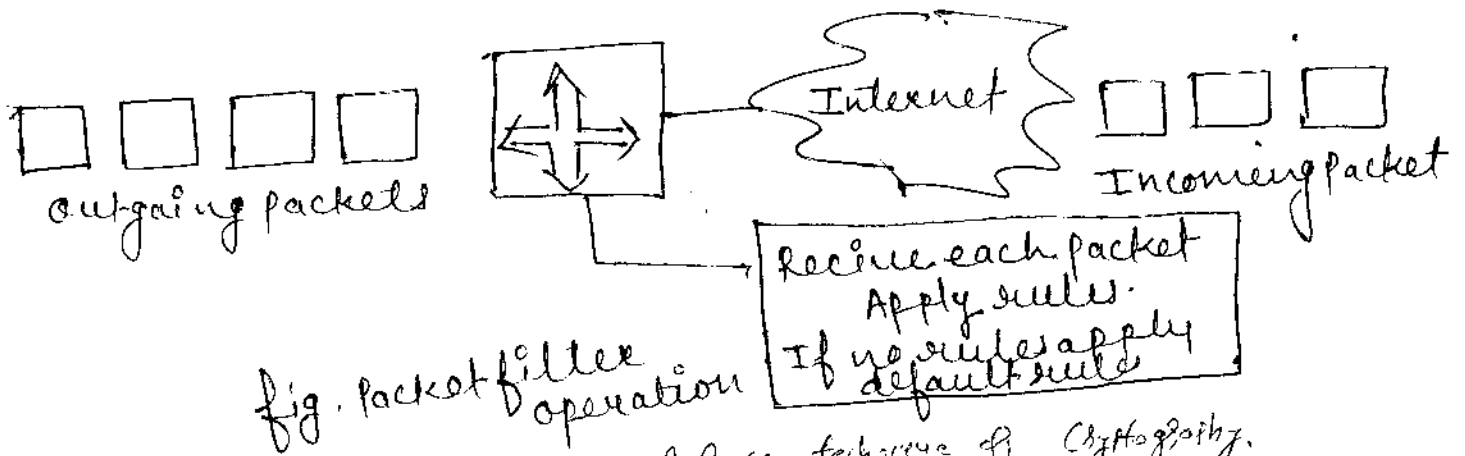


Fig. Packet filter operation

Q-2 Explain with example the Rail fence technique of Cryptography.

Ans. The Rail fence technique is an example of transposition. It uses a simple algorithm.

1. Write down the plain text message as a sequence of diagonals.
2. Read the plain text written in step 1 as a sequence of rows.

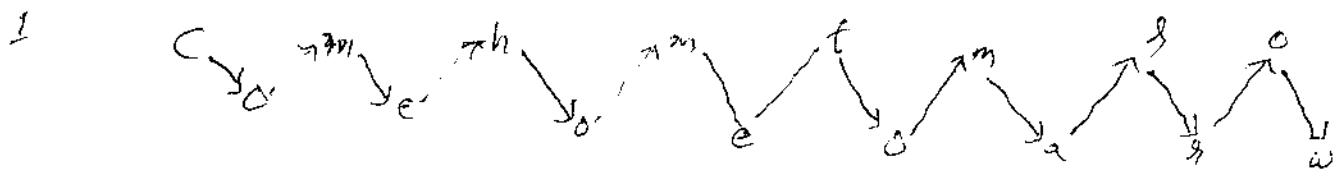
Suppose we have a plain text message.

COME HOME TOMORROW.

Now we want to convert this plain text into cipher text using Rail-fence technique.

Rail fence technique involves writing plain text as a sequence of diagonals and then reading it row by row to produce cipher text.

Original plain text message: Come home tomorrow.

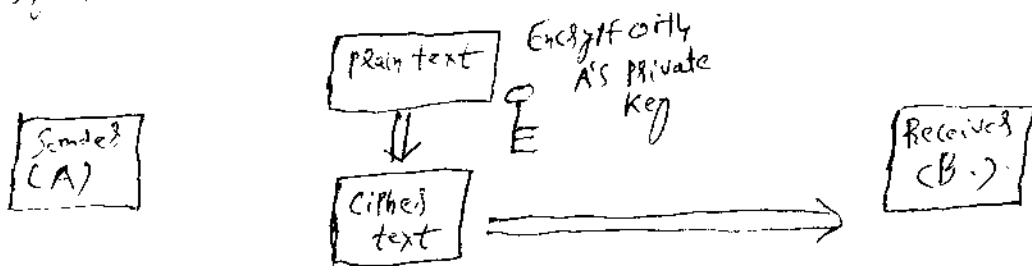


2. Now read the text of how by send and write it sequentially

Cmhm t m r o c e e c e a x u is the cipher text.

Q-3. What are digital signatures. Explain.

Ans. In this scheme the sender encrypts the message with his private key. It is the base for digital signature scheme. Digital signature have great significance in the modern world of web commerce.



In this scheme sender A encrypts the message with his private key. If the receiver (B) receives such a message encrypted with A's private key, B can use A's public key to decrypt the message, and therefore access the plain text. If the decryption is successful, it assures B that this message was indeed sent by A. Therefore, although this scheme does not achieve confidentiality, it achieves authentication. Moreover, in the case of dispute, B can take the encrypted message and decrypt it with A's public key to prove that the message indeed came from A. This achieves the purpose of non-repudiation.

4.

Differentiate between Asymmetric and Symmetric Key Cryptography.

1.

Characteristics

Symmetric Key
Cryptography

Asymmetric Key
Cryptography

Keys used for encryption/
decryption

Same key is used for
encryption and decryption

one key is used for encryption
and another, different key
is used for decryption.

Speed of encryption/
decryption

Very fast

Slow.

Size of resulting
encrypted text

Usually same or less than
the original clear text size

More than the original
clear text size.

Key agreement/Exchange

A big problem

No problem at all.

No. of keys required is
related to no. of participants
in the message exchange.

Equal ~~to~~ about the
square of the no. of
participants

Same as the no. of
participants.

mainly for encryption and
decryption.

Can be used for encryption
and decryption as well
as for digital signatures

Usage

PHP & MySQL

Q.1. Explain 1D and Multidimensional array with example.

Ans. Array in PHP :- Array का उपयोग PHP में other programming language के तरह एक ही प्रकार के data type के multiple element को store करने के लिए किया जाता है।

one dimensional Array :- One dimensional Array वह array कहलाता है जिसमें एक ही row में multiple element को store किया जाता है जिसमें by default index value zero होती है एवं यह element add होने के साथ index को increment करती है।

eg. <?php

```
$car = array("value", "BMW", "Toyota");
echo "I have ", $car[0], $car[1], $car[2];
?>
```

o/p. I have value, BMW, Toyota.

Multidimensional array :- Multidimensional array वह array होती है जो multiple arrays को level के रूप में store करती है। अर्थात् element को row व column of form में store करती है।

<?php

```
$car = array
(car array("value", 22, 18);
array("BMW", 15, 13);
echo $car[0][0], "in stock: " $car[0][1],
" sold: " $car[0][2];
?>
```

o/p. value: In stock 22 sold 18.

Explain Array functions with functions of array in php?

Ans. Array functions :- किसी programming language में

Array functions व functions होते हैं जो inbuilt होते हैं उन functions को call करने पर वह अपनी functionality स्वयं करते हैं उनके लिए specific code नहीं लिखना होता। यह programming language को easy एवं fast बनाते हैं।

इन functions को array के inbuilt functions भी कहा जाता है।

eg. Array functions

1) array_change_key_case :- यह functions array में alphabate के case को change करता है।

2) array_count_value () :- यह function array में array के element की count करता है। एक count value को return भेजता है।

3) array_merge () :- यह function array में दो arrays को joint करने का कार्य करता है।

4) array_push () :- इस function का उपयोग array में element को insert करने के लिए किया जाता है।

5) array_pop () :- इस function का उपयोग array में से element को delete करने के लिए किया जाता है।

6) array_reverse () :- इस function का उपयोग array को reverse करने के लिए किया जाता है।

Q.3. Difference between MySQL and MS Access -

Ans. MS Access

1. MS Access partitioning data को support नहीं करता है।
2. MS Access licence data base है।
3. MS Access data base windows operating system को support करता है।
4. MS Access की performance MySQL के compare में बहुत नहीं है।

MySQL

1. MySQL partitioning data base को support करता है।
2. MySQL data base open source data base है।
3. MySQL db windows operating system के साथ linux, unix सपोर्ट को support करता है।
4. MySQL की performance MS Access की तुलना में बहुत है।

4. What is purpose of cookies and explain retrieving, expiring and deleting cookies.

A.w- purpose of cookies :-

Cookies का उपयोग php user related information को store करने के लिए किया जाता है।

cookies जब computer में internet से connectivity होती है उसी time पर cookies active होती है।

cookies web master को allow करती है कि user related information को store करने के लिए होता है।

create cookies

set cookie (name, value, expiration)

Retrieve, expiring and deleting cookies :-

Retrieve cookies :- retrieve function cookies in php using retrieve function. use

cookies में value को index करने के लिए किया जाता है।
using `$_COOKIE`

`COOKIE [COOKIE name];`

deleting cookies :- इसका उपयोग php में कुछ cookies

time expire होने बाद automatic delete हो जाती है।
but कुछ cookies को manually delete किया जाता है।

Syntax :- `set cookie ("name", value);`

expiring cookies :- computer system में कुछ cookies time duration समाप्त होने के बाद automatic delete हो जाती है उसे expire cookies कहते हैं।