## Web Application

Web application is a client server computer program. client runs in a web browsers. browser is an application for browsing net eg. chrome, firefox ..etc. web application can be a software which can can be accessed through web browsers. web server may be a machine or a port.. etc resources are stored here. client sent request to the web server and the webserver sent back the response to the client. The communication is done via protocols. protocol is a set of rules or a common agreement between client and server. protocol such as http, FTP, websocket ...etc. most commonly used protocol is http that is hyper text transfer protocol. establish the connection using this protocol. when the connection is established, client sent a request to the server and server provides the service to the client services like provide web resources like file,image..etc. these resources are in 2 types

1.static :doesn't change

2.dynamic :generated on the fly(eg.current time in us)

URL is the uniform Resource location which contains protocol, web server and path. http is a request respond protocol. when athe browser need to perform operations on resources web client establish the connection using sending a request and it will get response. after http transaction the connection will be terminated.

## **Protocols**

When two parties are communicating they need to use the same language and same set of grammar rules that can understand each other. similarly when 2 applications are communicating they use set of rules that is called protocols. eg:http,Ftp,...etc

## http

http is hyper text transfer protocol.it is the backbone of internet. http protocol is used for communicating between the server and client. It says some set of rules and regulations that how they communicate. It is a client server model that means sending request and get back the response. It is stateless – after http transaction the connection will be terminated and it takes next request as new request but it can be fairly avoided by the help of cookies.it is an application layer protocol because it works in application layer. application layer exist on top of the

transport layer. transport layer uses the TCP protocol. http works on top of the TCP protocol. client can perform different operations using the protocol eg:get data, post data, delete data...etc. server status code like error403 is produced by the protocol. using http protocol we can sent data with a header. The header specifice what type of content we need for eg: if we give xml to the header xml files are filter out.

## How the internet works

Request a resource using address from the browser, and browser get response from the server, there is a internet service provider it generates an ip address. Data travels across the internet in packets. Packet will travel from one machine to another until they reach destination router is a networking device that routes data packet between computer networks. Ip address for how devices on a network can be found network hubs, switches, and cables are the hardware building block of any network.