

## UNIT-I

Introduction to web, protocols governing the web, web development strategies, web applications, web project, web team, Writing Web Projects, Identification of Objects, Target Users, Web Team, Planning and Process Development.

## UNIT-II

Introduction to Hyper Text Markup Language (HTML), HTML elements, Tables, Images, Forms, Frames, XHTML syntax and Semantics, extensible Markup Language (XML), XML schemes, Object Models, Presenting XML, Using XML Processors, element, attributes, entity declarations, DTD (Document type definition) files and basics of Cascading Style Sheet (CSS List).

## UNIT-III

Java script: Introduction to Java Script, Object in Java Script, Dynamic HTML with Java Script, documents, forms, statements, functions, objects, Event and event handling; introduction to AJAX, VB Script, CGI, PERL.

## UNIT-IV

Evaluation of web applications, type of web documents, feature of web pages, multilayer web applications, introduction to Apache web server. Security in application: authentication, authorization, auditing, security issues, security on the web, proxy server, firewall, Web Servers, Web server and its deployment, Web client, services of web server, mail server, proxy server, multimedia server.



## Web

- Commonly Known as World Wide Web
- Started by CERN in 1989

It is defined as collection of different websites around world, containing different info.

## Internet

It is used to connect a computer with other computer

Internet is a group of computer system connected from all around world.

It uses an Internet protocol and Transport control protocol (TCP) based packet routing network.

A message is a piece of data delivered over the internet but before it is sent broken down into smaller pieces known as packet

## Protocols

It is set of standardized rules that decides how data is formatted, sent and received b/w devices.

TCP / I

HTTP

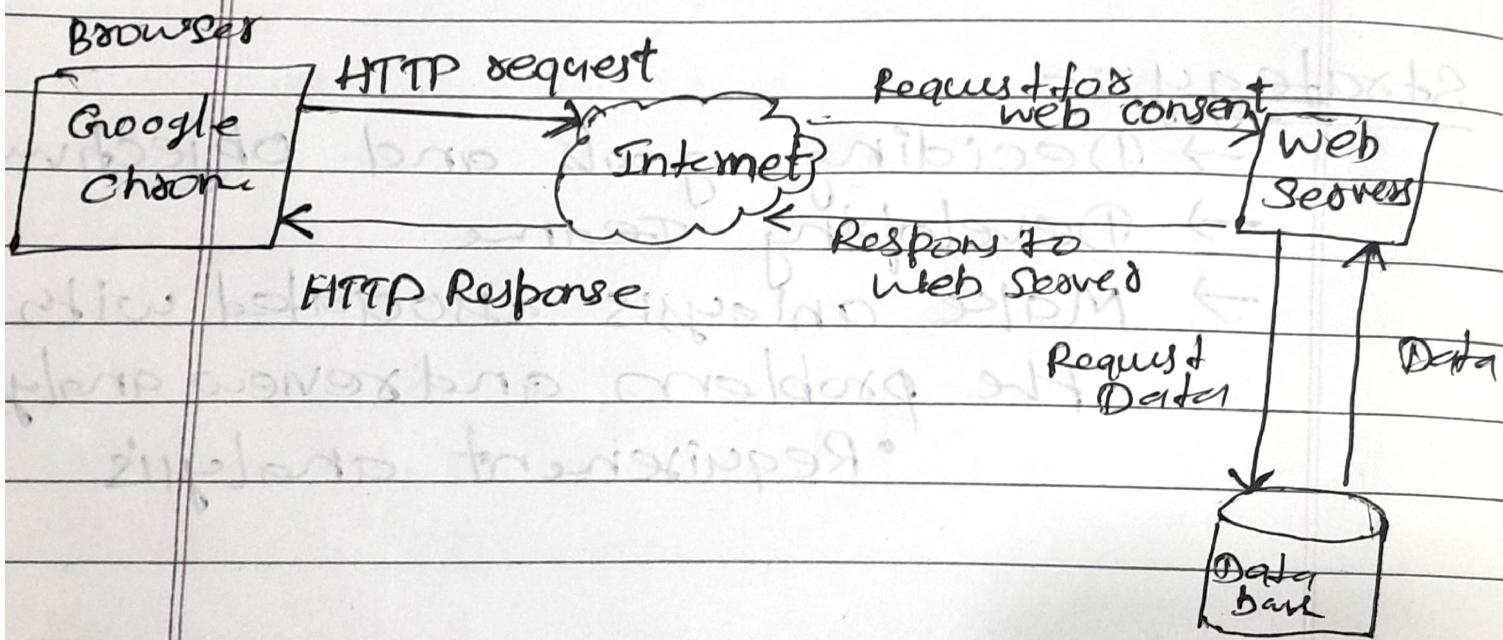
## Strategy :-

- Deciding goals and objective
- Developing Team
- Make analysis associated with the problem and review analysis
  - Requirement analysis
- Formulate a list of tasks
- Proposal of project to web team for developing

## Web applications

Web Application is a special computer program that you can use on the internet without having download it on your computer.

## Working of web Application



## Target Users

A specified group of people you want to reach with your websites. These are people who are most likely to be interested in your service or information.

## Planning and process

### Development

#### Strategy

#### Design and Specification

#### Developing of desired result

#### Testing and Maintenance

#### Registration

#### Registration with ISP

~~Marketing~~

## Case study

Page No.			
Date			

- Q. Consider a Case Study based on a project  
Q. Working of SEO.

Practise of optimizing the performance of a website by changing its structure and content to increase its visibility and web traffic.

The objective of SEO is to attract website visitors, who can turn into customers, client etc.

The higher our pages appear in search results, the greater chance they are discovered and clicked on.

### Needs of SEO?

- To improve quality of our website
- To increase web traffic.
- To increase visibility.
- To enhance user experience.
- For analysis and monitoring of website

Suppose we take an example  
A website ([www.example.com](http://www.example.com)) ranks at 45 in google Search results, resulting in 100 unit conversions (means sales, sign-ups or any other action that defines your conversion metric)

Now in other hand, the website ranking in the 1st position on Google search for the same product has a conversion rate of 10,000, so if you think about it, you are losing around 9,900 potential customers just because you are not in 1st position

## Basic Components of SEO

1. Keyword Research

2. On-Page SEO

3. Quality content

4. off-Page SEO

5. Technical SEO

6. User Experience(UX)

7. Analytics

## How Does SEO Work?

1. Search Engine Crawling :-

Search engines like Google, use automated bots (spiders or crawlers) to navigate the web.

These bots follow links from one page to another to find new URLs. By hopping along this path of links, the crawler is able to find new content and add it to their index called Caffeine (a massive database of discovered URLs).

2. Indexing: Once a page is crawled, its content is analyzed and stored in search engine's index, it is like a massive library catalog that the search engine

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refers to when user enters a search query.

### 3. Ranking Algorithm:-

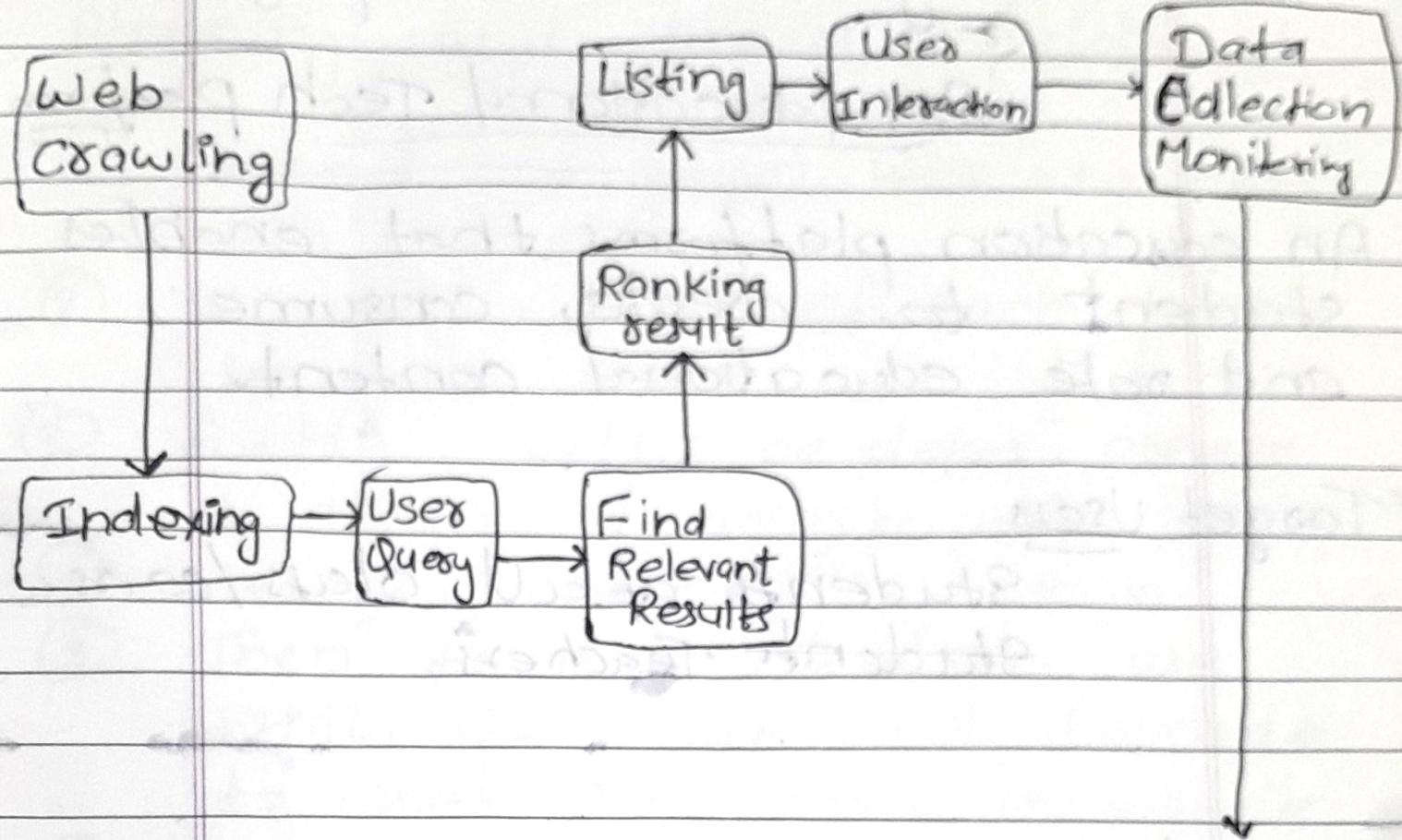
Search engines use complex algorithms to determine the relevance and authority of indexed pages for specific queries. Algorithms consider numerous factors, including keyword relevance, content quality, user experience, backlinks etc.

### 4. Keyword Relevance:-

Search engines assess how well a page's content aligns with search queries. Keyword optimization involves strategically using relevant terms in titles, headers, meta tags and throughout content.

### 5. Content Quality:- Search engine aims to deliver valuable, informative and engaging content to user.

# How SEO works



Feedback is

provided on basis  
of Content's quality

> Keywords Relevancy

> Security (HTTPs)

> Backlinks

# Case Study based on a project

## An educational Tech platform

An education platforms that enables student to create, consume, and rate educational content.

### Target Users

Students of all class / course  
Student Teachers

### web team

- ① Requirement Analysis
- ② Frontend
- ③ UI/UX Developer
- ④ Frontend Developer
- ⑤ Backend Developer
- ⑥ Database modeling team
- ⑦ Testing Team
- ⑧ Deployment Team

## Planning and Process Development

- ① Find all the target user who interact with the system :-
- ② we assign work of each people in web teams
- ③ firstly UI/UX developer create a design of website using canva
- ④ Manager approve the design
- ⑤ Then frontend developer use HTML, CSS, Javascript for code to create same design on website
- ⑥ Data base modeling team create a database model for system and how data is stored in it using MongoDB
- ⑦ Then Backend developer write code how data is fetched from DB to frontend and make website functional
- ⑧ Testers test website as possible as he is
- ⑨ Then Deployment team deploy -

## Web projects

A web project involves the development and creation of a website, which includes activities aimed at achieving a specific goal within a network.

## Web team

The collection of workers who are brought together in order to create digital based content. Within a team, there can be a number of roles.

## Writing a web project

- ① For writing a web project we firstly need to decide a objective and plan of projects.