# 1- User Experience Design in Web Applications

Web site different from and web applications in user interaction and design.

Web sites deliver static content and by using content management system their content is regularly , web application have wide range of interactive features/functionalities and dynamic content. And there are different methodologies and methods for presenting the content in a more efficient and effective way to the users. This is due to the diversity of information received from web applications.

And Converting desktop applications or converting them into web applications and their main feature in displaying them via the browser can make them an effective option to simplify and facilitate the functions on different devices and also for ease of use. Companies and businesses also focus on user experience (UX) so that machine learning is embedded in applications and more and more products are automated. To ensure that a minimum of resources is spent on support, companies and organizations spend researching a user's experience before branding their product. User experience is used as a strategy for customer experience, marketing, product development, and digital product influencing. As the number of minutes of phone use has increased over the years. Web applications use analytics algorithms and relevancy metrics to measure page views, user visits, often searched items, etc. There are techniques involved in driving user behavior.

# 2- Vulnerabilities and Security of Web Applications

As a result of the massive use of data via the Internet, many vulnerabilities have emerged such as attacks, fraud, and the use of illegal means to harm a business on the Internet. Hackers also target web applications, by controlling networks through intrusion detection. Therefore, the security of the (web application) layer is extremely important for unauthorized users. The development of the web application depends on the communication process between the client and the server, and there are some points in avoiding penetration:

. The parameters inputted have to be checked for their validity based on their data types, length of fields.

. The legality of the parameters is checked by patterns and values for presence of null values, duplicate values etc.

. The application should have the capability to display proper error message for informing the user.

. The error message should be restricted to sensitive user credentials (i.e. userid, password), Card Details etc.

# 3- Visual methods for Web application design

In recent years, a number of techniques have been developed for usability assessment. These depend mainly on user interactions with the systems and as such, they require a practical implementation of the system, meaning that a usable assessment can only be made late in the development process. At this stage, going back and making architectural changes to the design is extremely costly.