

Experiment No. 7

Aim:- To design Develop XML with web page using DTD & XML Schema.

Software Required :- Internet Explorer

Theory:- The user application developed with the help of XML and DTD are not good at designing part. For the designing of the XML file we go ahead with the XSLT. XSL: XSL stands for Extensible Stylesheet language, and is a Style Sheet language for XML documents. XSLT stands for XSL transformation. In this tutorial you will learn how to use XSLT to transform XML documents into other formats, like XHTML.

XPath:- An expression language used by XSLT (and many other languages) to access or refer to parts of an XML document.

XML document Schema:- is an XML-based alternative to DTD.

Output Analysis:-

An XML document which consists of a breakfast menu is created. The document consists of different table like structure which has 'name' tag as the heading and the tags, price description & calories as the attributes.

Additional learning :-

XSLT (Extensible Stylesheet Language Transformations) is the recommended style sheet language for XML. XSLT is far more sophisticated than CSS with XSLT we can add/remove elements and attributes to or from the output file. XSLT uses XPath to find information in an XML document.

Conclusion :-

The designing of the XML of user application will be developed with the help of DTD is done with XSL transformation. It helps to dynamically change the data of the static HTML page.

EXPERIMENT No.-8

Aim:- Install and Configure Android Studio, develop an application that uses GUI Components, Font and colors.

Software Required :- Android Studio

Theory:- Android Studio is the official integrated development environment (IDE) for Android app development and is based on IntelliJ IDEA. In addition to IntelliJ's powerful code editor and developer tools, Android Studio offers even more features that increase your productivity when developing Android apps, such as:-

- 1) A flexible build system on Gradle.
- 2) A fast and feature packed emulator.
- 3) A unified environment where you can develop for all android devices.
- 4) Change app to push code and resources changes to the running app without restarting it.
- 5) Github integration and code templates to help you build common app features and also import code.
- 6) Variety of frameworks and testing tools.
- 7) Lint tools to identify performance, usability, version compatibility issues, and more.
- 8) Built in support for google cloud platform, which makes it easy to integrate with google cloud managing and app Engine.
- 9) C++ and NDK support.

Output Analysis:- A Simple app is created with the help of java as a programming language. The app consists of username & password fields which has to be filled by the user. If the username and password entered by the user are correct then a message "LOGIN SUCCESSFUL" will be displayed else a message "LOGIN FAILED" will be displayed.

Additional learning:- One of the most usable method in android is "setOnClickListener" method, which help us to link a listener with certain attributes. While invoking this method a call back function will run. one can create a class for more than one listener, so this can lead you to code reusability.

Conclusion :-

We have studied how to install and configure android studio on windows platform. Also we have learn how to implement a program on this environment.

Experiment NO.-9

Aim:- Develop any one Application using Android development Tool.

Software Required:- Android Studio

Theory:- Prerequisites for this Android project
To develop this simple calculator app the requirements and prerequisites are as follows:-

Java: 1st of all you need to have the knowledge of Java programming. Java programming plays a very important role as we will develop the app code in java.

XML:- XML is another important part of own android application. It will be used for the development of the user interface for application.

Android Studio:- Android Studio is the backbone of our application, as we will develop our app using android studio. Android virtual device is also shipped with android studio that will be helpful in testing whether the application are working or not.

Following are the steps given:-

- 1) open the android studio
- 2) Now, click on the Files menu.
- 3) Click on new and select "import project"
- 4) Select the location of that file & then click 'OK' button
- 5) So finally, run your available code and you can run this by clicking on the Run button

Output Analysis :-

A basic calculator app has been created using Java as the programming language. Various arithmetic operations such as addition, subtraction, division functionalities have been added.

Additional Learning :-

The Java method called "setContentView" sets the XML file you want as your main layout when the app starts.

Syntax :- `setContentView(R.layout.activity_main);`

Conclusion :-

We have implemented the Android application for building calculator. Also we have learned how to implement a program on an Android environment.

Experiment No. 10

Aim:- Study experiment on - SSL Certificate in web application designed.

Software Required

Theory:- SSL is an acronym for Secure Socket Layer. A type of digital Security that allows encrypted communication between a website and a web browser. The technology is, currently deprecated and has been replaced entirely by TLS. TLS stands for Transport Layer Security and it ensures data privacy the same way that SSL does. Since SSL is no longer used, this is the correct term that people should start using. HTTPS is a secure extension of HTTP. Websites that install and configure an SSL/TLS Certificate can use the HTTPS protocol to establish a secure connection with the server.

- 1) The goal of SSL/TLS is to make it safe and secure to transmit sensitive information including personal data, payment or login information.
- 2) It's an alternative to plain text data transfer in which your connection to a server is unencrypted, and it makes it harder for crooks and hackers to snoop on the connection and steal your data.
- 3) Most people are familiar with SSL/TLS certificates, which are used by webmasters to secure their websites and to provide a secure way for people to carry out transactions.
- 4) You can tell when a website is using one because you'll see a little padlock next to the URL in the address bar.

SSL/TLS certificates work by a digitally signing a cryptographic key to a company's identifying information. This allows to them encrypt data transfers in such a way that they can't be unscrambled by third parties.

Conclusions:-

Thus we have studied what is the important of authentication in the current digital area.