Course: iOS Development

Level: Grades 1 – 5

Duration: 60 mins

Aims:

- **To understand what Ios Development entails**
- **To understand the basics of coding Swift**
- **To be able to build a simple app at the end of the week**

Materials: macOS, lesson plan, worksheets, projector, whiteboard and marker.

- **Course Outline**

Week 1

Introduction to Tools of the Course.

- XCode
- iOS
- Swift

Projects

- Hello World App
- Roll The Dice App

The Swifts Programming Language

- The Swift Playground
- Comments
- The println() function

Variables

- Variables
- Constants
- Data types
- Optionals
- Type inference

Conditional Statements & Operators

- The if statement
- The else statement
- The else if statement
- Comparison operators
- Arithmetic operators
- Logical operators

Strings

- Literals
- Mutable strings
- Comparing strings
- Concatenating strings

Introduction to XCode IDE

XCode is an integrated development environment developed to work on Mac operating systems. It contains a suite of software development tools developed by apple. XCode facilitates us to develop software for macOS, tvOS, iOS, and watchOS. The latest stable release of XCode is 11.0, which is available on the Mac App Store for all the users of macOS Mojave. In this section of the tutorial, we will go through various contexts of XCode. We will also go through multiple sections of XCode.
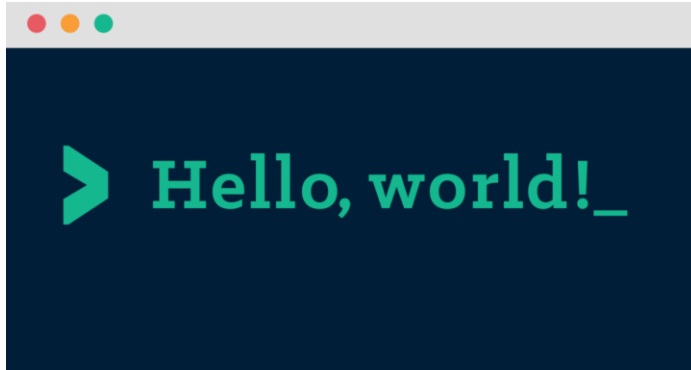
What is iOS?

iOS stands for (iPhone Operating System). iOS is a mobile operating system which is provided by Apple Incorporation. It is mainly designed for Apple mobile devices like iPhone and iPod Touch. It was earlier known as iPhone OS.

What is Swift?

Swift is **a robust and intuitive programming language created by Apple for** building apps for iOS, Mac, Apple TV, and Apple Watch. It's designed to give developers more freedom than ever. Swift is easy to use and open source, so anyone with an idea can create something incredible.

"Hello World" App:

A "Hello, World!" program generally is a computer program that outputs or displays the message "Hello, World!". Such a program is very simple in most programming languages, and is often used to illustrate the basic syntax of a programming language. It is often the first program written by people learning to code.

If there's a little time:

Discuss the following questions:

- What is Swift used for?
- Basic Syntax of Swift
- Make an ''IF statement" of a scenario whereby we want our app to pop out "**WELCOME BRO!"** if the person is over 18 years of age. Else, pop out, "**YOU'RE NOT 18 YET!**"
- Build an app as an assignment and submit it on your GitHub page as repos.