Learn How to Code Using C#

The Basics of Programming

Other programming languages

C

C++

Java

PHP

Perl

JavaScript

Visual Basic

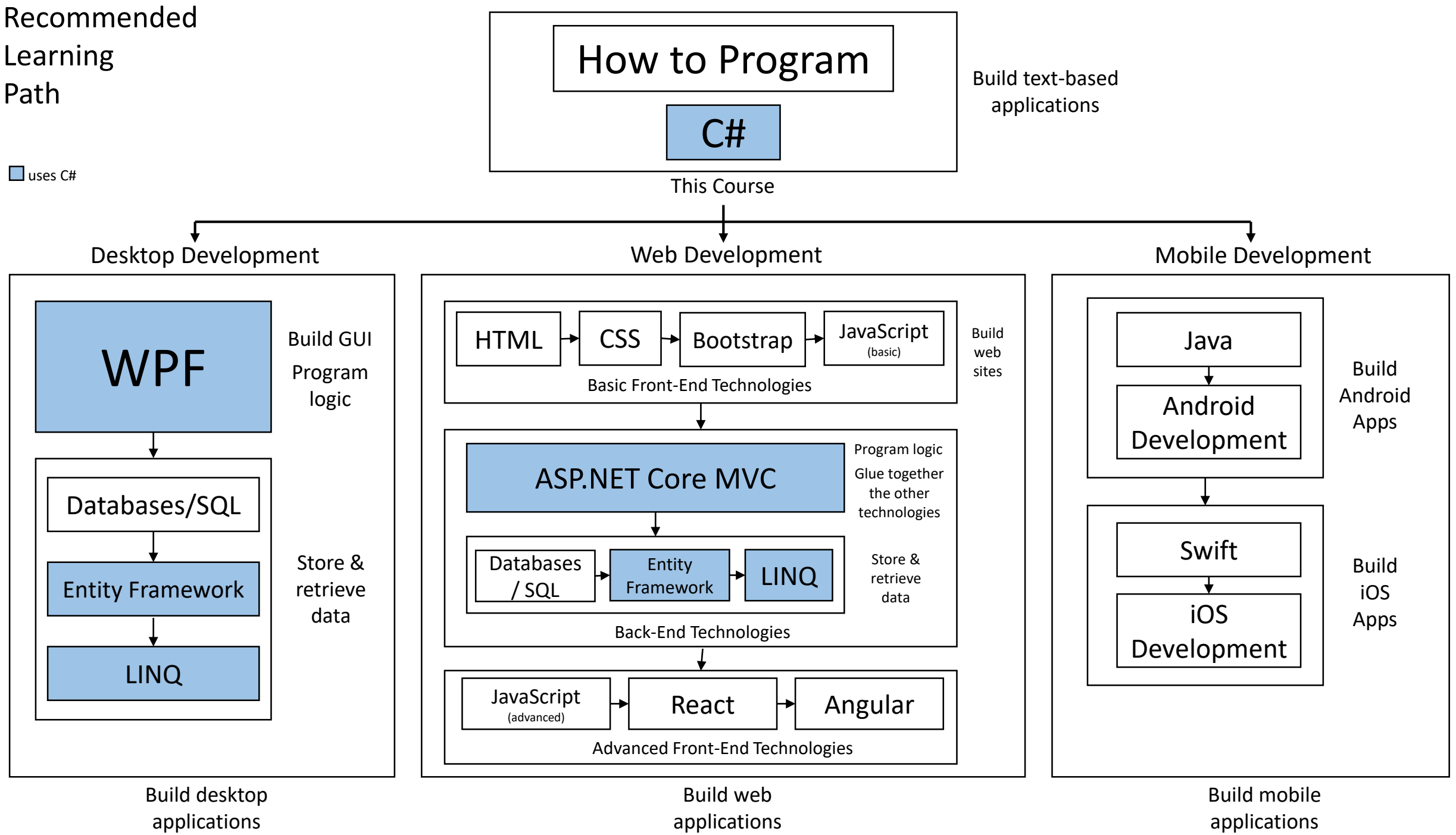
Python

Objective-C

Swift

R

Go


Recommended Learning Path
uses C#
How to Program
C#
Build text-based applications
This Course
Desktop Development
Web Development
Mobile Development
WPF
Build GUI
Program logic
Databases/SQL
Entity Framework
LINQ
Store & retrieve data
Build desktop applications
HTML
CSS
Bootstrap
JavaScript (basic)
Basic Front-End Technologies
Build web sites
ASP.NET Core MVC
Program logic
Glue together the other technologies
Databases / SQL
Entity Framework
LINQ
Store & retrieve data
Back-End Technologies
JavaScript (advanced)
React
Angular
Advanced Front-End Technologies
Build web applications
Java
Android Development
Build Android Apps
Swift
iOS Development
Build iOS Apps
Build mobile applications

1. Intro
2. Flow Control
3. Methods
4. Data Types
5. Object-Oriented Programming
6. Debugging and Error Handling
7. Advanced C#

machine code – code that a computer can understand; written in binary

binary - series of 0s and 1s to represent data and instructions

high-level language – a coding language designed to be understood by humans; C# is a high-level language

low-level language – a coding language designed to be understood by computers

compiled language – a coding language where the entire code is converted to machine code before it executes; C# is a compiled language

interpreted language – a coding language where each line of code is converted to machine code and executed one-at-a-time

text editor – used to input and store the code

compiler - if there are no syntax errors, the compiler will convert your code into object files containing machine code

linker - connects the compiled object files together into a single executable file that can execute your program

build - the entire process of converting human-readable code into an executable file; to build your code in C#, you must compile and link it

Integrated Development Environment (IDE) – combines multiple software development tools into a single application

Visual Studio

- Text Editor
- Compiler
- Linker
- Debugger
- Many other tools

library – a collection of pre-written code

framework - a collection of libraries meant to help with general-purpose programming; encourages a certain *methodology* to *how* you develop your applications

.NET – C# software framework created by Microsoft

Class

Lamp

State	Behavior
color	turn off
is on?	turn on

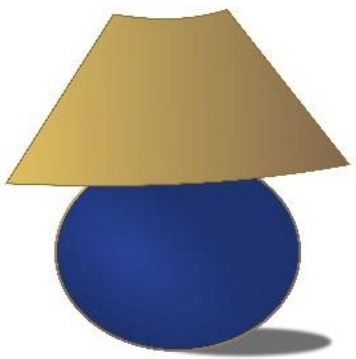
Objects

Lamp 1

green

on

Lamp 2



blue

off

Lamp 3

red

on