Assignment 3: Programming languages for Font-End &Back-End			
Language	Advantages	Disadvantages	Functionality
HTML	HTML is a simple language with easy to learn syntax. HTML webpages can be created by text editors. It is an independent language, which means it can be used on various platforms, operating systems, and device	HTML is limited to what it can create as a stand-alone language. It only creates elements on a web page and cannot style them. HTML is not designed for data handling or manipulation. It needs to be supplemented with other languages to create a better UX for a website.	HTML is a front-end language that is used to create elements on a web page.
JavaScript (JS)	JS can be used on both front and back-end development. JavaScript allows developers to add interactivity directly to web pages within the user's browser. JavaScript has access to various web APIs.	JS is single-threaded, meaning it can only execute one task at a time in a given context. JS can have some compatibility issues in different web browsers.JS can also introduce security vulnerabilities, especially with using external APIs.	Creating interactive elements. A front-end language that is also used on some back-end frameworks like Nodejs.
Python	Python's syntax is designed to be simple and concise; this allows developers to focus on solving problems rather than dealing with complex syntax. It also has a large library selection that is good for things like development, data analysis, and I.	Python has poor memory management which makes it a bad choice for large projects. It is also an interpreted language which gives it slower load times.	Python functions allow you to encapsulate reusable blocks of code. It's code is executed using an interpreter, which means that the code is executed line by line, rather than being compiled into machine code.
Koltin	Koltin is connected to Java and can use its libraries and framework seamlessly together. It's type system distinguishes between nullable and non-nullable types, reducing the risk of null pointer exceptions. It is supported by Google for Android app development. It can be used for server-side development.	There is a slight learning curve to the Koltin syntax. Koltin also runs a little slower than Java. It is primarily used to develop apps for Android.	Kotlin is designed to be concise. Features like type inference, data classes, and smart casts help developers write clean and compact code.
Java	Java is known for its "Write Once, Run Anywhere" (WORA) capability, which means that you can write Java code on one platform (e.g., Windows) and run it on any other platform (e.g., Linux or macOS) without modification.	Because Java applications are executed within the Java Virtual Machine (JVM), they often run slower than other compiled languages. Its apps can be memory intensive.	Java code is compiled into an intermediate form called bytecode, which can run on any platform with a Java Virtual Machine (JVM). It's static typing and strong type checking catch many errors at compile time, reducing the risk of runtime errors and enhancing code reliability.

PHP	PHP is free and open source. Its syntax is straightforward and resembles other C-style languages, which many programmers find familiar.	PHP has inconsistencies in function names and parameter orders within its standard libraries.	PHP creates interactive websites by enabling developers to seamlessly integrate server-side functionalities directly within webpages, eliminating the necessity for external file calls. PHP primarily serves as a backend programming language
Ruby on Rails	Ruby is known for its focus on developer productivity. It provides a range of built-in tools, conventions, and best practices that streamline the development process. Ruby combines a focus on productivity with an elegant and developer-friendly syntax,	Ruby is an interpreted language, which means that code is executed line by line by the Ruby interpreter. This interpretation process can be slow. It also has uses a lot of memory.	Ruby is a framework that is designed to simplify and accelerate the development of web applications by providing a set of conventions and tools for common tasks with 3 mains components: model, view, controller.