**Its time to learn – by T.V.VIGNESH**

It’s an era of technological revolution. With the emergence of a lot of applications, software and programming languages people often get confused where to start learning and how to learn. This has been a problem since a long time. In this article, I would like to give an insight to people about how a programming language can be learnt and which is the best possible way to do it.

When we take computer science in general, it is divided into many categories like Windows/Linux/Mac Based application development; Web based application development, Website development, Operating System development, Development of APPS for Mobiles, Smartphones and handheld devices, Networking, Cloud computing and so on… There is no end as of now. Each category has a special aspect in its own way and can be realised only if one has interest in it.

**Windows/Linux based Applications**

This forms a wide range of category as it involves development of all software like media players, Text Editors, Browsers, etc. i.e. all the applications you use in your system. Development of Windows/Linux based applications requires a basic knowledge of languages like JAVA, PYTHON, C++ etc. but in the list, JAVA is the most preferred one due to its best compatibility, functionality and due to extensive support of Object Oriented Programming.

Learn JAVA and everything else is like a piece of cake for you. The JAVA developer documentation has all the description about all the syntax you can use in JAVA but is not good for a beginner who doesn’t even have a background of a programming language. It is good to start with developing robots using the **ROBOCODE API** since it gives you a great introduction to JAVA and is a good implementation of it. You can refer to websites like [www.javabeginner.com](http://www.javabeginner.com) for beginners.

For python beginners, it is good to refer websites like [www.sthurlow.com/python/](http://www.sthurlow.com/python/) though its only for beginners. For advanced developers, python’s Official Documentation is very good. Python has similar implementation like JAVA except for a few changes. GOOGLE works majorly in python even for its search engine, apart from others like AJAX, etc. It works on indentation and does not have any braces which make programming organized too.

**Web based application development**

Again JAVA comes into play here as SERVELETS can be developed. These are complex implementations of JAVA and require basic knowledge of JAVA. So, if you want to make a servlet, start with the basics. **FLASH, SILVERLIGHT AND** even **PHP** is nowadays extensively used for web based application development due to their very good support for databases, interactivity and usability. If you know C++, then its good that you prefer PHP. If you are very much creative, then flash will be the best option for you. SILVERLIGHT also works like flash but the only difference is that, it is a MICROSOFT product. Both of them share the great features.

**WEBSITE DEVELOPMENT**

This is a really vast field having a lot of sub domains under it and needs a lot of creativity, manpower and patience. There are a lot of web development languages starting with **HTML, CSS, JAVASCRIPT, PHP, MySQL** and lots more but these are used most often.

If you want to start with developing a website, I can guarantee that [www.w3schools.com](http://www.w3schools.com) is the best place to start with. Never miss the Try It Yourself examples which help you in seeing the code as well as the output at the same time at much ease.

Anyone can learn web development but only if they have the interest to know how the other websites are made. I would suggest INSPECT ELEMENT feature of Google chrome or equivalent is available in FIREBUG for FIREFOX which helps you to find out how a portion of a page is made. It is really a great learning experience.

HTML, CSS are related to DESIGNING A WEBPAGE

JAVASCRIPT for validating, doing simple jobs on your computer and even animations.

PHP, MySQL for maintaining a database for the website.

**OPERATING SYSTEM DEVELOPMENT**

This is very much interesting as well as the most difficult one in programming. It involves all the above phases of development and interaction with the hardware on one side whereas user on the other side. The most common languages that are used in OS development are C & C++ since they have the ability to access the memory of the computer and interact with the assembly language at ease.

There is always an advantage when you use open source OPERATING SYSTEM like LINUX as you can modify your OS at your wish, redistribute it and even learn a lot out of it which you cannot do in OS like windows.

**APPS FOR HANDHELDS AND MOBILES**

It is often cool when you have your own application of your choice, get it circulated to all the people and have fun with it wherever you go. **ANDROID** has become a very huge success for GOOGLE and even others like **IPHONES** are awesome. They have brilliant APIs and emulators for developers which can be used for development of APPS. Learning ANDROID requires a basic knowledge of **JAVA** and its own API. Android tutorials are very nicely given at [www.developer.android.com](http://www.developer.android.com) but remember to go through JAVA before that.