



**Programming for Non-Programmers:** 

# EFFECTIVE CODING FOR PRACTICAL APPLICATIONS

#### WHAT YOU'LL LEARN:

vb.net C#

web
HTML JAVA
SCRIPT

mobile JAVA

The course is structured to follow a logical sequence starting with coding basics and an "easy-to-understand" programming language such as **VB.Net**. The next step is to explore the **C-syntax** languages of **C#** and **Java**, starting with a basic C# program and for Java, a basic Java Script driven **web page**. We will then step into **mobile application development** using standard Java for both **iOS** and **Android** platforms.

We will also build and **deploy** each of the applications throughout the various stages as we progress from basic **desktop** apps to multiple platform mobile app development.



- 4 Days Course over 2 weeks
- Certificate of Completion
- **Practical applications and exercises** throughout the course to ensure sufficient practice and experience building.
- Learn from an industry expert with more than 16 years application development experience who is also a Certified Technical Trainer (CTT+ Certified) and an Autodesk Certified Instructor (ACI), working in the Engineering industry.

This course will enable you to effectively make use of application development technologies to improve your professional career and to add vast efficiencies to your business.

This is the **only** course of its kind, do not miss out. **Limited** seats available.

**REGISTRATION:** 

**ENQUIRIES:** 

TEL:

info@bimwerx.nz

#### **Programming for Non-Programmers:**

## EFFECTIVE CODING FOR PRACTICAL APPLICATIONS



Software development and a good understanding of programming languages used to be limited to (mostly) application developers in the past. In recent times, more and more young professionals are entering the workforce with some level of programming knowledge and the benefit of this skill is being experienced throughout all professional industries. In fact, the ability to automate mundane and repetitive tasks provides great efficiencies and saves huge amount of money in time-saving, reduced project overheads and resources. Better insight is also gained by effective data management and data processing through custom-built applications when required.

The biggest challenges faced when attempting to enter the world of software development for professionals who have not specifically studied in this field are:

- Knowing where to start
- How to get your first project off the ground
- Where to find the tools that are required
- Where to find resources to build your applications

It would seem that there is no single online resource available that provides a comprehensive "getting started" guide for individuals who seek to learn this skillset. This practical workshop-style course provides the opportunity to learn through practical examples and hands-on workshops in addition to facilitator-led training.

## WHO THIS COURSE IS FOR:

- Experienced and well-versed users of modern technology but do not have to be IT Professionals or Programmers.
- Candidates who consider themselves "slightly above average" (or even higher) in terms of computer literacy would be well suited for this course.

#### **LECTURERS:**



#### **Chris Vorster**

Chris Vorster is an experienced BIM and Digital Engineering Leader and has more than 19 years' experience working in the engineering industry as a design detailer, software developer and technical trainer. He is the current Digital Engineering Lead at Arup NZ and also Director at BIMWERX (NZ), an AEC-focussed software development company.



Julian Lee

Ir Dr. Julian Lee has more than 20 years' experience in managing various infrastructure building projects and construction-related research projects in Asia-Pacific, and is the Principal of Cinnotek International Group (New Zealand, Hong Kong, Malaysia and Singapore). He is currently an Adjunct Professor at Department of Civil Engineering in the University of Hong Kong. Ir Dr. Lee is a Chartered Engineer (CEng) and a Member of Institute of Civil Engineer (MICE), UK, a Member of the HK Institution of Engineers (MHKIE), Hong Kong, and also a Chartered Professional Engineer (CPEng) and a member of the Engineering NZ in New Zealand.

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## EFFECTIVE CODING FOR PRACTICAL APPLICATIONS

NODE 05

### COURSE CONTENT & GOALS:

### DAY 1

#### INTRODUCTION TO PROGRAMMING

- Introduction to programming languages
- Overview of Visual Studio
- Creating your first .Net application Hello World
- Learn VB.Net

By the end of this lesson, you will be able to...

- Create your first "hello world" application using VB.Net with Microsoft Visual Studio
- Read VB.Net code
- Use basic logical operations in VB.Net
- Run your first standalone Desktop application

# DAY 2 BUILD DESKTOP APPLICATIONS

- Basic Application Development
- UI Design
- Working with Assemblies
- Compile, Package and Distribute

By the end of this lesson, you will be able to...

- Work with more advanced logical operations in VB.Net
- Create call functions to return data using VB.Net
- Design User Interfaces using Microsoft Visual Studio
- Reference Assemblies (APIs) to automate Microsoft Office applications (Optional workshop 1)
- Reference Assemblies (APIs) to automate Autodesk AutoCAD and Autodesk Revit (Optional workshop 2)
- Build Desktop applications for distribution

#### DAY 3

#### WEB DEVELOPMENT

- C-syntax languages such as C# and Java
- Introduction to HTML and Web Development
- Implement Java Script in web development
- Introduction to jQuery

By the end of this lesson, you will be able to...

- Read C-Syntax languages such as C# and Java / JavaScript
- Build basic web layouts using HTML
- Connect JavaScript code to HTML elements to perform operational functions

## DAY 4 MOBILE DEVELOPMENT

- Overview of Mobile Platform Development
- Develop Mobile Applications
- Mobile App Deployment

By the end of this lesson, you will be able to...

- Develop mobile applications using Java and the NetBeans IDE
- Test your mobile applications on multiple platforms using virtual devices
- Compile your mobile application for distribution

#### SCHEDULE:

DAY 1
NOV 201
19
TUE

DAY 2 NOV 2019 21 THU

DAY 3
NOV 2019
26
TUE

DAY 4 NOV 2019 28 THU

WEEK TWC

**VENUE:** 

WF711, AUT-WF Building
42 Wakefield St
Auckland CBD
Auckland 1010, New Zealand

# COURSE FEES:

**Standard:** NZ\$3,000/person

Early Bird: NZ\$2,000/person

(before 19 Oct 2019)

**Group Price:** NZ\$2,500/person

(over 5 persons)

Morning, Afternoon Tea and Lunch included.

### REQUIREMENTS:

- Good computer literacy using Microsoft Windows
- Laptop with Microsoft Windows 10
- Microsoft Visual Studio 2019 Community Edition (Free) with VB.Net and C# Languages installed
- Java JDK 8u211 (free)
- NetBeans 11 IDE (Free)
- Codename One Version 6.0 (Free)
- MS Word, MS Excel
- Optional: AutoCAD, Revit

Detailed instructions to install and configure the above will be sent to attendees prior to course commencement.



**ORGANIZERS:** 





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