INTRODUCTION TO THE FILEMAKER PLATFORM
Selected dates and locations
Main presenter: Ray Cologon, Director of Development, NightWing Enterprises Pty Ltd

SESSION FORMAT:
The class will take place over two full days and will comprise seven substantive and wide-ranging topics.

The focus of the class is on understanding the "why" as well as the "how" – so each topic will include discussion of the concepts and background, together with a hands-on exploration of practical methods and techniques. There will be plenty of time for questions and discussion, and practical exercises will take a workshop format to explore and apply key skills that are the focus of the course.

Examples and demo files will be available to participants, and participants will also create and keep their own initial example files during the classes, illustrating the techniques learned.

Interaction between participants is encouraged as part of a mutual learning and exploration process.

Summary/Overview of Topics:

Day 1:

Introduction
– Introduction of presenter and participants
– Overview of the schedule
– Logistics and orientation
– Framework, purposes and objectives of the class

1. Getting a Perspective on Databases and FileMaker
– The role of databases in the contemporary world
– The database versus the 'spreadsheet'
– Basic concepts of relational data design
– Database elements: data, logic and interface
– The integrated FileMaker design principle
– Overview of deployment options and methods
– Where things are in FileMaker and what they are called

2. Hands-on and essential familiarity with FileMaker Pro
– Opening the application, creating/opening files and file navigation
– Getting started: Creating your first FileMaker database
– Practical hierarchical principles: Files, tables, records and fields
– Anatomy of FileMaker Pro screen elements and controls
– FileMaker's "Modes" and their uses
– Data navigation, viewing and editing
– FileMaker's Find (search) capabilities explained
– Understanding the Found Set and Find/Omit operations
– Creation of compound and complex Find requests
– Basic data sorting and practical examples
– Introduction to Layout Mode – FileMaker's screen builder
– Understanding saving/committing and related FileMaker controls

3. Getting going with FileMaker development
– What it really means to be a developer and to create apps
– First principles of data design and where to start
– Creating data structure in FileMaker systems
– Setting up and using relationships between tables
– Understanding data types and data storage mechanisms
– The concept and uses of Global fields
– Configuring fields for auto-entry and validation
– Data aggregation with calculation and summary fields
– Capturing elemental metadata for each record
– The mechanics of importing and exporting data

– Overview of the FileMaker platform: desktop, mobile and web

Day 2: **4.**   **Basics of interface design**
– Overview of layout objects and their capabilities
– Drilling down into some layout design techniques
– Data presentation and the basics of layout design
– Understanding the operation of layout parts
– Tricks for getting things to line up
– Some general interface design principles

5.   **The FileMaker calculation framework**
– The 'natural' language of calculations
– The basics of numeric calculations
– Calculations for different result/data types
– Setting up basic calculations
– Operators, functions, schema references and constants
– An overview of the power and scope of calculations
– Examples of varied places where calculations are used

6.   **Basic scripting and automation**
– The concept of scripting and the FileMaker process model
– Introducing the FileMaker Script Workspace
– Practical and hands-on scripting exercises
– Using conditional statements and branching in FileMaker scripts
– Using script parameters to pass data to a script
– Scripts that act repetitively using loops
– Script 'runtime errors' and what to do about them
– Calling scripts from menu/s and buttons
– Introduction to script triggering and basic practical examples
– Understanding context and its importance for scripts
– Data output options: printing, pdf, export, upload

7.   **Preparing your app for use in the real world**
– Setting up basic user login security for your database
– Overview of privilege sets
– Scripts that interact with security
– Creating and defining an "OnFirstWindowOpen" triggered script
– Working with multiple windows
– Designing FileMaker apps for use on mobile devices
– FileMaker WebDirect – design and deployment considerations
– Multi-user systems and FileMaker Server

Conclusion
– What comes next and how to get help when you need it
– Review, Q&A, Discussion
– Feedback, Evaluations and Follow-Up
– Closure