Course Syllabus:
Getting Started with Magic xpa 3.x and Mobile

1 Course Objectives and Goals

Magic xpa provides all aspects of the application development and deployment process within a single end-to-end platform. Magic xpa features a ready-made business application engine that simplifies the code-writing process and enables the developer to deploy to the market faster, using fewer resources.

As the demand for mobile applications is rapidly increasing, the Magic xpa application platform has been extended to support deployment of applications on popular mobile platforms, including iOS™ (iPhone and iPad) and Android™.
Magic xpa includes a single studio and a single proven metadata paradigm to provide a complete environment for developing mobile enterprise applications, which can be deployed as native applications on mobile devices, or in hybrid or Web architectures.

The main goal of this course is to enable the students to acquire the essential entry level programming skills to develop a basic Mobile app using Magic xpa.
By the end of the course, the student will have the skills and knowledge required to develop a basic mobile application using Magic xpa 3.x, both on iOS devices and Android devices.

The course is intensive and incorporates the Magic xpa programming method, layer by layer. The student will carry out exercises throughout the course to gradually gain the required knowledge.

2 General Course Details

Course ID:	UCGMXAM3x
Level:	Entry level
Available Formats:	• Classroom instructor-led training (ILT) • Private on-site training • Classroom course open to the general public • Self-paced learning
Target Audience:	Anyone interested in building mobile applications using Magic xpa. As well as: programmers, IT architects, system analysts, and so on.
Duration:	A total of 30 learning hours over a period of 5 days**
Course based on:	Magic xpa version 3.x

Please note:
** Magic University may change the course's content/duration with no prior notification. The stated course duration refers to classroom instructor-led training, and does not include IT-related setup time. If required, additional time needs to be allocated for this.

3 Technical Material

Technical courseware will be provided with all of the information required for completing the course, including exercises, sample solutions and programs that will further develop the students' knowledge.

4 Lessons

The course consists of the following lessons:

1. Magic xpa Studio Interface
2. Creating Your First Program
3. Architecture Overview
4. Data Manipulation and Validation
5. Setting Initial Values
6. Setting the Form's Appearance
7. Viewing Data Source Content
8. Models
9. The Application Engine Concept
10. Events and Handlers
11. Conditioning a Block of Operations
12. One-to-One Data Relationships
13. Selecting Data from a List
14. One-to-Many Data Relationships
15. Non-Interactive Processing
16. Reports
17. Processing Data by Groups
18. Menus
19. Using the Device Functionality
20. Offline Implementation
21. Best Practices
22. Customization and Installation

5 Prerequisites

There are **no** prerequisite Magic University courses required to attend this course. However, experience shows that students with the background described below will find it easier to achieve the course goals:

Language	English reading/writing.
IT Background	Familiar with basic programming terminology and understanding of the structure of an information system and database concepts, such as tables, rows, fields, and relationships between tables. Basic programming experience is an advantage.
Mobile Device	Familiar with smartphone usage, capable of installing apps on a device and configuring settings.

6 Student Training Environment Requirements

Mobile Device	Tablet and a smartphone to use during the course (iOS and/or Android). The devices will be brought by the student.
PC for Development and IT Environment	PC and IT environment that meets product and course requirements. Please contact your Magic representative to coordinate who will provide this (student or Magic).

7 Setting Up Your PC for this Course

Magic xpa License	The course uses the MGDEMO license. This is a single user license. If the classroom environment is on a network, you will need a full license for the course. Should you require a full license, please obtain a Magic xpa MGCSTK evaluation license from your local Magic Software representative.
Hardware	• Windows XP Pro and later. The course was tested on Windows 7. • Pentium processor 1.8GHz and upwards (recommended: Dual-core, 2.55-GHz or faster). • 1 GB of RAM or greater. • Screen resolution of at least 1024x768 pixels.
Database	The course includes SQLite, which is a single-user SQL database. Therefore, no additional database is required.
Software	• IIS 7 or above. • .NET Framework 4 or above.
Mobile	Android SDK 1 installed on your desktop or laptop. This is needed for the lesson on customization. Customization on an iOS requires using a MacBook as well as a valid iOS Developer Enterprise Program account. This will not be discussed in this course. It is strongly advised to perform the exercises using a tablet.
License	The course uses the MGDEMO license. This is a single user license.