To all of my trainees from whom I have learned.
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About the Authors

Sushil Markandeya is a B.E. from Osmania University (1973) and a M.E. (Electrical Engineering) from B.I.T.S., Pilani (1975). In 1977 he shifted to I.T. He was always involved in business application software on various platforms. Since 1999, he has been associated with training on ERP software. On SAP, on ABAP; on ‘Oracle Applications’ on the functional side (financial modules: General Ledger, Fixed Assets Management, Accounts Receivable, Accounts Payable, and Cash Management). Since July 2006, he has been doing corporate training in SAP ABAP for people just out of college. The corporate clients he has trained for are: Accenture India Pvt. Ltd, Wipro Group (Wipro Technologies Ltd., Wipro Infotech Ltd), Sony India Pvt. Ltd. Mphasis Pvt. Ltd. (part of HP), ITC Infotech Ltd, ITM – Saudi Arabia, Hyundai Motor India Ltd, and Godrej InfoTech. Ltd. To date, he has trained more than 1000 people in these corporations.

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—Sushil Markandeya

Writing a book of this sort requires a sustained obsession over a single topic. I owe a great deal of thanks to all those who not only tolerated but indulged my obsession. It would be impossible to mention everyone who contributed to the work related to this book. Some who deserve special mention, are greatest strengths my loving Mom and Dad.

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—Kaushik Roy
ABAP (Advanced Business Application Programming) is the programming language and the platform on which the entire SAP software has been developed. Originally, a procedure oriented language, OOP constructs and features were added to it more than a decade back. Though, its core constructs remain the same, it underwent many enhancements over the last decade. The ABAP platform is used during both the customization and implementation phases of the SAP software in the enterprise.

Target Audience

The book addresses people who want to learn ABAP afresh and people working with ABAP for a few years (0-4 years). People with experience in ABAP will find this book useful as a reference for hands-on examples, from the context of doing meaningful things.

Target Audience Pre-requisites

The target audience must have a fair exposure to OOP language/s like C++, Java, etc. They must be exposed to the basic features of OOP including encapsulation, inheritance, polymorphism, etc.

They must also have a good exposure to RDBMS basics like RDBMS tables, table columns, relationships, primary key, foreign key, cardinality, entity, attribute and table metadata. An exposure to RDBMS SQL, especially the data retrieval statement, is required.

Book’s Approach

The whole of the book’s thrust is on the doing something meaningful part: to be able to create programs and objects required as per a defined context or scenario.

The book uses a scenario oriented presentation style. Concepts, commands and statements are communicated through illustrative examples and scenarios. Wherever possible, small business scenarios are used to communicate concepts, commands and statements.

Shorn of weighty theoretical treatment and preoccupations with language syntax, the book is a completely practical approach, demonstrating and conveying the language’s commands, features through hands-on examples.

Definitions, descriptions, syntax, etc. are introduced even as you set about implementing a scenario.

The presentation of the features is scenario oriented: most of the features are demonstrated in terms of small business scenarios. The book’s scenario descriptions along with source program resource containing the ABAP program source enable the reader to create all objects related to the scenario and run or execute them. The underlying concepts of a feature/command are totally conveyed through execution of these hands-on programs.
The demonstrating/illustrating objects, including the programs, rely on some of the SAP functional module tables being populated (the term functional module is explained in Chapter 1). This is assured if the reader is logged on to an IDES (internet demonstration & evaluation server) server or system. The IDES server is briefly described in Chapter 1. An IDES server is now a de facto system for all SAP training related activities. Specifically SAP functional module tables used for illustration and hands-on exercises in the book are the basic tables of sales and purchase. Most people with nil or little to no exposure to the business, and commercial world relate to the business areas of sales and purchase.

All of the hands-on exercises in the book are performed using SAP sales and purchase functional module tables. The IDES server is used ensuring substantial data in the SAP functional module tables. Details of the SAP functional module tables used in the hands-on exercises are to be found in Appendix A. The authors strongly advise you to go through the appendix describing the functional module tables used in the hands-on exercises of the book. You can visit this Appendix A before you commence the reading of a chapter from Chapter 5 onwards (when you start using the SAP functional module tables).

The book also uses a “carry forward” approach for the hands-on exercises. Where ever possible, a hands-on exercise performed in earlier chapters is carried forward to subsequent chapters, with additions and enhancements carried out to it. This involves re-usability of created objects again and again.

Chronology and order of presentation of topics and sub topics is related to pre requisites required for the presented topics and sub topics. At some places, topics and sub topics are introduced on a preview basis to make the current hands-on exercise more meaningful. Subsequently the topics and sub topics introduced on a preview basis are formally presented.

The authors strongly insist that you perform the hands-on exercises as you read a chapter and encounter the hands-on exercises—do not defer performing them until after reading a chapter or the book. It should not be just reading, but reading and simultaneously performing the hands-on exercises.

Resources

The book is supplemented with an E-resource or source program resource.

The E-resource or source program resource contain the hands-on exercises source programs. Most source programs in the E-resource are also listed in the book. Some source programs of the E-resource are partially listed in the book and some are not listed in the book. This is indicated in the respective chapters. The E-resource is downloadable and each of the hands-on exercise source programs can be opened as a separate file in Windows Notepad. While performing the hands-on exercises, you can copy and paste an entire source program from the E-resource, or manually enter the source program by referring to the source program lines of the E-resource. Manual entry of source programs will get you a feel of the syntax of statements. If you are copying and pasting, remember to replace the ‘REPORT . . . ’ statement line from the E-resource program into the created ABAP program in the ABAP workbench environment. You will be introduced to the ABAP workbench environment in Chapter 1.

In addition to the book and the supplementary E-resource, you will use the following additional resources:

You must have connectivity to SAP, preferably a SAP IDES server. Your log-in user id must be able to create, edit and delete objects in the ABAP workbench environment. Your log-in user id must be able to access data from SAP functional module tables. Apart from book reading, some extra reading is required such as:

You will need to read extra theory and description not exposited in the book. You need to refer to some detailed information not provided in the book.

You will need to read up the detailed tutorial or documentation related operations in the ABAP workbench environment not described in the book.

You will likely refer to and read the detailed properties, methods and events, etc. of some SAP supplied classes.

The material for most of the above mentioned readings is available in freely downloadable PDF documents from the following link http://www.easymarketplace.de/online-pdfs.php. You will not violate any copyright law downloading the documents from this link. These are PDF documents of SAP version 4.6C. Though the documents are older versions; they will largely serve your purposes.
Download the following PDF documents from the link: http://www.easymarketplace.de/online-pdfs.php.

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You will need to refer (not read) to these documents for information during your reading of this book. Preferably, you won’t read these documents during your chapter reading. Read these documents between chapters. At what stage, which of these documents are to be read or referred is indicated in the book’s chapters.

So, on to stimulating reading. Not just readings though, the hands-on exercises should be performed simultaneously with your reading. The documents mentioned above will also be available for download on http://www.apress.com/9781430248033.