

Welcome

Call this stage three of the computer revolution. Stage one worked out the basic principles of computing, and applied them to mainframes that helped run the world. That was pretty much in hand by 1980. Stage two turned those principles into software you could install on your desktop or laptop for a reasonable price. That was in hand by 1995. We are in stage three, which networks billions of desktops and laptops, and supplies any of them with *free open source software development tools for any computer task you can imagine*.

MySQL[®] is one of those tools. It runs more than half the world's database-driven websites. 5.0 and 5.1 versions are in production. The 5.4/5.5 series is *beta*. 6.0 *alpha* releases have appeared and been withdrawn, but the series is expected to reappear in early 2010. MySQL is fast, flexible, richly featured and customisable. It's built for developers, it's robust, and it's open source. Under a GPL/GNU licence it costs you exactly nothing.

Fine. But if you are a database developer, you probably already know about it. Why another book about MySQL?

Three answers: about what recent MySQL versions bring, about our approach, and about you.

About recent versions: The break with the recent MySQL past is bracing. In 5.0 and 5.1, correlated subqueries, stored procedures, Triggers, Views and event management took MySQL to a new level of productivity, well beyond the one-app-runs-one-database model of early MySQL development. Now 6.0 brings a new ACID-compliant database engine named Falcon, and more.

About our approach: MySQL's main focus has been on a small footprint and high performance, and if those aims came at the cost of perfect relational database correctness, so be it. Many MySQL databases used to be maintained mainly from single web sites. You can't argue with what MySQL AB accomplished. Now, more MySQL users and developers are looking for big-three-style relational power. MySQL management has declared that as of versions 5 and 6, they are taking aim at SQL:2003 compatibility. As if to underline that, a big software company—Sun—has bought MySQL AB.

So instead of beginning with how to do up a little MySQL project as quickly as possible, in this book we ground design on use case analysis, we ground syntax on relational database theory, and we ground database maintenance on software life cycle analysis.

Most everything else follows from those fundamentals. You spend a bit more time up front on the basics, and soon you find you can drive the vehicle a lot faster, and more steadily, to more interesting and creative destinations.

About you: You may be new to MySQL. You may be a Windows/SQL Server developer or manager who now, for the first time, needs to go to Linux or MySQL.

You may have decided that for you or your working community, the time for database systems from huge corporations costing tens of thousands of dollars has passed, that the time for community-developed open-source software development has arrived.

You may work for an NGO with a certain amount of in-house skill and an insistence on being honest, but now lack the funds for expensive licences. You may have worked mostly on Oracle or SQL Server or Sybase or even FoxPro systems, but your next project specifies MySQL. Whatever the reason, you are, or soon will be using a major open-source RDBMS *which is changing as you use it, on demand from you.*

Traditional dead-tree publishing offers a 500-1000 page tome of which maybe 200 pages are relevant to you, with some of that out of date by the time you read it. So you lug home this 2 kg object, read the pages of interest, curse the out-of-dateness, and ignore the rest. Trees died and trucks lugged heavy pallets of books to bookstores, and you weren't all that satisfied.

It's time to give that 19th century idea of publishing a rest. A few chapters of this book are free. You can purchase the whole book as an inexpensive weightless download, with a year's subscription for updates if you like. Our printing arrangement is on-demand, so if you want a print edition, it is freshly printed, you get the electronic edition and the updates too.

From the invention of writing, through long mediaeval queues of copying monks, Gutenberg's printing press, industrial and mass-market publishing, to the Web and to current efforts to put all books ever written online, we can't be sure what will happen next—except that in a few years you'll find this book freely available on the Web just as surely as you can now find most any other book, written in English, in a library at Oxford or in the New York City Public Library. If that wrecks our current business model, so be it. Meanwhile, you are reading this because you've joined the knowledge race. There is no other marathon like it.

Peter Brawley & Arthur Fuller