Management of Software Development in Python

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Welcome

Welcome to the "Management of Software Development in Python" book (2024 edition, online)!

This book will introduce you to software development tools and best practices, tailored specifically for business students, professionals, and aspiring entrepreneurs. Whether you're looking to gain a better understanding of how to manage the software development process, communicate effectively with technical teams, or take the lead on a tech-driven project, this book is designed to equip you with the essential skills and knowledge.

In today's fast-paced business environment, having a solid grasp of technical concepts is crucial. This book will empower you to speak the language of developers, manage technical teams with confidence, and even bring your own innovative ideas to life by creating prototype applications that could serve as the foundation for a startup.

Throughout this book, we'll cover key units designed to build your competence and confidence in software development:

1. **Local Development Tools** – Learn how to install and configure Python development tools on your local machine, setting the stage for effective coding practices.

2. **Version Control** – Master the essentials of version control to track changes, collaborate efficiently, and maintain the integrity of your projects.

3. **Code Organization, Simplification, and Refactoring** – Understand the principles of clean code, making your projects easier to manage, extend, and scale.

4. **Automated Testing and Continuous Integration** – Explore the practices that ensure your code is reliable, maintainable, and ready for deployment at any time.

5. **Software Products and Services** – Dive into the process of building web applications and deploying them to user-facing production environments, bringing your ideas to life.

This book isn't about learning to code - it assumes you already have an introductory level working knowledge in Python programming. If you need to brush up on Python programming first, check out the Intro to Python Programming book and gain practice programming in Python Notebooks, then come back here afterwards.

By the end of this journey, you'll be equipped to manage software development processes, lead technical teams, and perhaps even turn your entrepreneurial ideas into reality.

Let's get started!

About the Author

Michael Rossetti is a data scientist and software engineer. He has worked as a data analyst for a winning US Presidential campaign, an analytics director for a Silicon Valley startup, and a technology consultant for the US Government.

As an adjunct professor, he has taught courses in data science, computer science, and software development at universities including New York University, Georgetown University, and the George Washington University.

He has honed and adapted his Python educational materials based on lessons learned from teaching Python programming to thousands of students over the past decade.

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