1. Record Nr. UNINA9910637733503321

Autore	Almog Shai
Titolo	Practical Debugging at Scale : Cloud Native Debugging in Kubernetes and Production / / by Shai Almog
Pubbl/distr/stampa	Berkeley, CA : , : Apress : , : Imprint : Apress, , 2023
ISBN	9781484290422 1484290429
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource
Disciplina	005.3
Soggetti	Java (Computer program language) Cloud computing Computer programming Computer programs - Testing Java Cloud Computing Programming Techniques Software Testing
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Introduction -- Part I. Basics -- 1. Know Your Debugger -- 2. The Checklist -- 3. The Auxiliary Tools -- 4. Logging, Testing, and Fail Fast -- 5. Time Travel Debugging -- Part II. The Modern Production Environment -- 6. Debugging Kubernetes -- 7. Serverless Debugging -- 8. Fullstack Debugging -- 9. Observability and Monitoring -- 10. Developer Observability -- -- Part III. In Practice -- 11. Tools of Learning -- 12. Performance and Memory -- 13. Security -- 14. Bug Strategies -- Appendix A: References.
Sommario/riassunto	Overhaul your debugging techniques and master the theory and tools needed to debug and troubleshoot cloud applications in production environments. This book teaches debugging skills that universities often avoid, but that typically consume as much as 60% of our time as developers. The book covers the use of debugger features such as tracepoints, object marking, watch renderers, and more. Author Shai

Almog presents a scientific approach to debugging that is grounded in theory while being practical enough to help you to chase stubborn bugs through the maze of a Kubernetes deployment. Practical Debugging at Scale assumes a polyglot environment as is common for most enterprises, but focuses on JVM environments. Most of the tooling and techniques described are applicable to Python, Node, and other platforms, as well as to Java and other JVM languages. The book specifically covers debugging in production, an often-neglected discipline but an all too painful reality. You'll learn modern techniques around observability, monitoring, logging, and full stack debugging that you can put to immediate use in troubleshooting common ailments in production environments. You Will Learn: The scientific method underlying the process of debugging Debugger capabilities such as tracepoints and marker objects The correct use of less understood features such as exception breakpoints Techniques for tracing issues in production Kubernetes environments Observability and monitoring to resolve production problems Industry best practices for common tooling such as logging Profiling to understand performance and memory problems .