1.	Record Nr.	UNINA9910153115803321
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	Titolo	Data structures and problem solving using Java / / Mark A. Weiss
	Pubbl/distr/stampa	Harlow, England : , : Pearson, , [2014] ©2014
	ISBN	1-292-03818-7
	Edizione	[Fourth, pearson new international edition.]
	Descrizione fisica	1 online resource (944 pages) : illustrations (some color)
	Collana	Always learning
	Disciplina	005.133
	Soggetti	Java (Computer program language)
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Includes index.
	Nota di bibliografia	Includes bibliographical references and index.
	Nota di contenuto	Cover -- Table of Contents -- 1. Primitive Java -- 2. Reference Types -- 3. Objects and Classes -- 4. Inheritance -- 5. Algorithm Analysis -- 6. The Collections API -- 7. Recursion -- 8. Sorting Algorithms -- 9. Randomization -- 10. Fun and Games -- 11. Stacks and Compilers -- 12. Utilities -- 13. Graphs and Paths -- 14. Inner Classes and Implementation of ArrayList -- 15. Stacks and Queues -- 16. Linked Lists -- 17. Trees -- 18. Binary Search Trees -- 19. Hash Tables -- 20. A Priority Queue: The Binary Heap -- 21. Splay Trees -- 22. Merging Priority Queues -- 23. The Disjoint Set Class -- Appendix: Operators -- Appendix: Graphical User Interfaces -- Appendix: Bitwise Operations -- Index -- 1.
	Sommario/riassunto	For the second or third programming course. A practical and unique approach to data structures that separates interface from implementation. This book provides a practical introduction to data structures with an emphasis on abstract thinking and problem solving, as well as the use of Java. It does this through what remains a unique approach that clearly separates each data structure's interface (how to use a data structure) from its implementation (how to actually program that structure). Parts I (Tour of Java), II (Algorithms and Building Blocks), and III (Applications) lay the groundwork by discussing basic concepts and tools and providing some practical examples, while Part IV (Implementations) focuses on implementation of data structures. This forces the reader to think about the functionality of the data structures

before the hash table is implemented.   The Fourth Edition features many new updates as well as new exercises.