

Computer
Science
&
Programming
Books

Question

As a Data Analyst (student), which book, within the computer science & programming category, should I read next ?

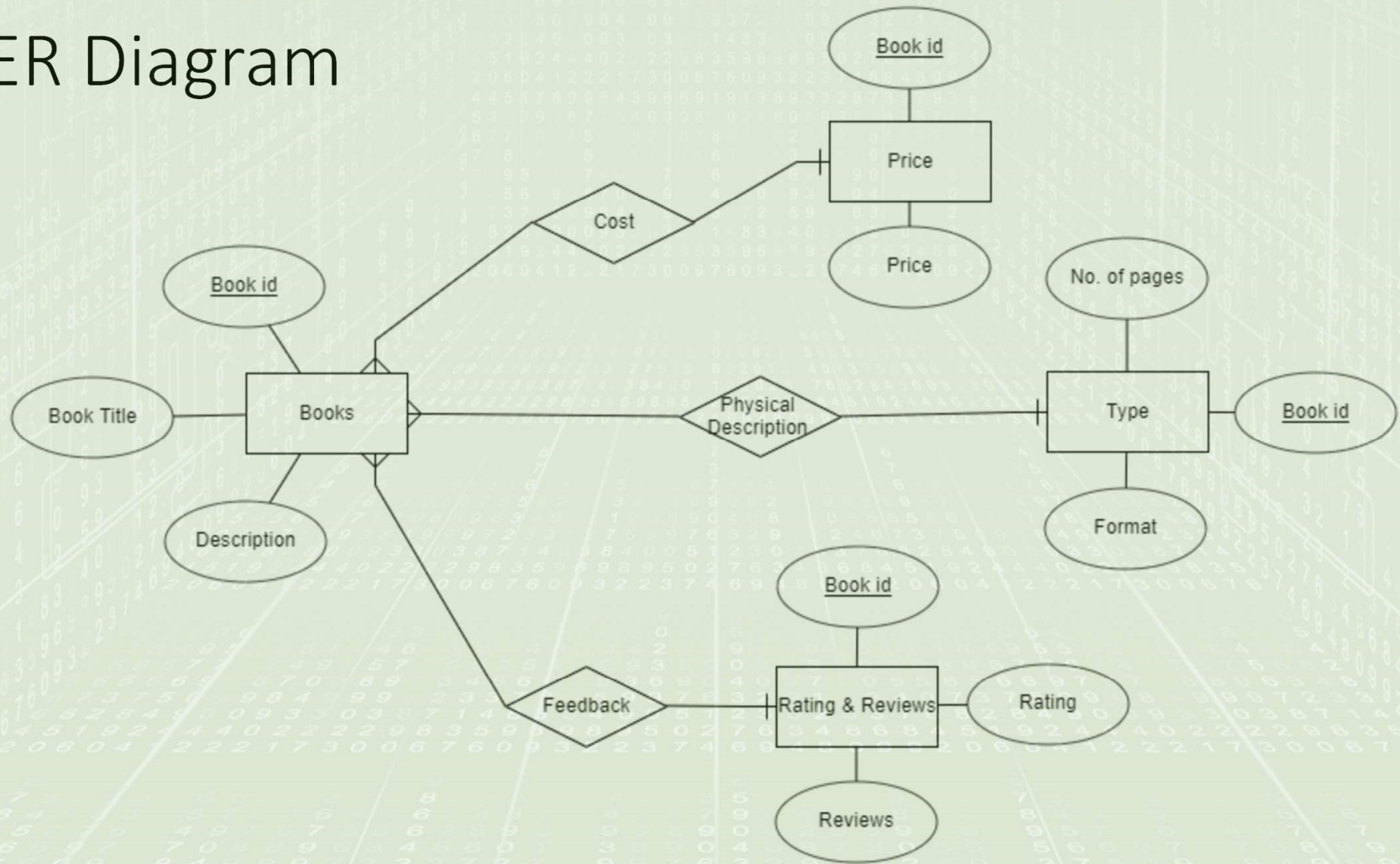
Data Collection

kaggle

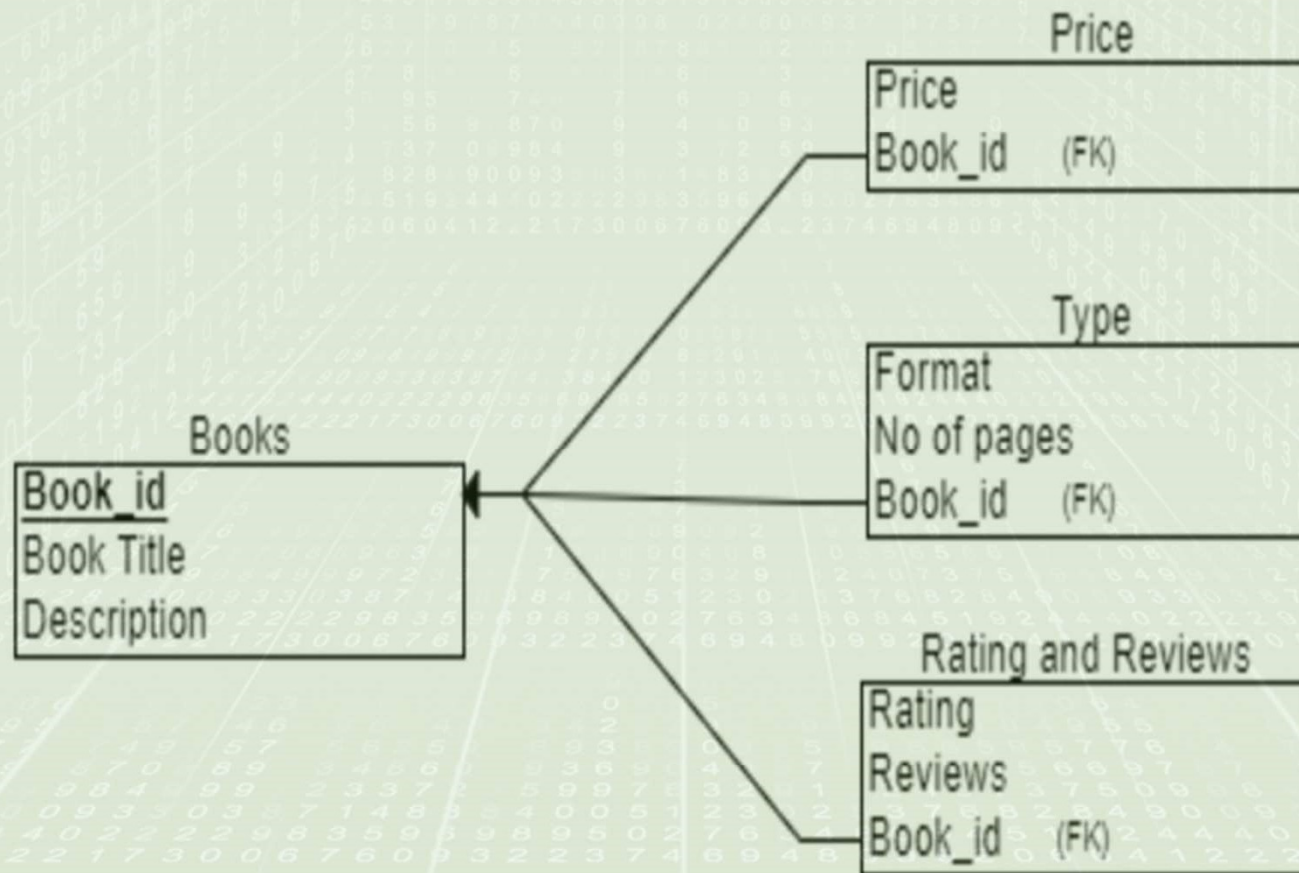
Source:

<https://www.kaggle.com/thomaskonstantin/top-270-rated-computer-science-programing-books>

ER Diagram



Relational Schema



Data Preparation

```
---Round the Price column to 2 decimals
```

```
update Price  
set Price = format (Price, 'N2')
```

```
---Alter the column Reviews from NVARCHAR to INT
```

```
]alter table Rating_and_Reviews  
alter column Reviews int;
```

```
---Remove books with no reviews
```

```
]delete from Rating_and_Reviews  
where Reviews = '0';
```

```
]delete from Books
```

```
where Book_id in (3, 10, 25, 42, 45, 55, 65, 149, 178, 179, 183, 188, 200, 213, 227, 239, 240, 247, 262, 264, 265, 267);
```

```
]delete from Price
```

```
where Book_id in (3, 10, 25, 42, 45, 55, 65, 149, 178, 179, 183, 188, 200, 213, 227, 239, 240, 247, 262, 264, 265, 267);
```

```
]delete from Type
```

```
where Book_id in (3, 10, 25, 42, 45, 55, 65, 149, 178, 179, 183, 188, 200, 213, 227, 239, 240, 247, 262, 264, 265, 267);
```

```
---Remove the comma in Reviews that separates the thousands
```

```
]update Rating_and_Reviews  
set Reviews = replace(Reviews, ',', '');
```

```
---Combine ebook & Kindle
```

```
]update Type  
set Format='Kindle / ebook'  
where Format='ebook';
```

```
]update Type
```

```
set Format='Kindle / ebook'  
where Format='Kindle Edition';
```

```
---Box set
```

```
update Type  
set Format='Boxed Set'  
where Book_id=269;
```

```
update Type
```

```
set Format='Boxed Set'  
where Book_id=270;
```


Data Analysis

```
--create view tables
create view View_All as
(select b.Book_id, b.Book_title, b.Description, p.Price, t.Number_Of_Pages, t.Format, r.Rating, r.Reviews
from Books b
join Type t
on b.Book_id = t.Book_id
join Price p
on p.Book_id = b.Book_id
join Rating_and_Reviews r
on r.Book_id = b.Book_id);

--Average Rating & Average Reviews per Keyword in Book Title and Description
select avg(rating) as 'avg rating', avg(reviews) as 'avg reviews'
from View_All
where book_title like '%Game%' and Description like '%Game%';

--Quantity per book format
select Format, count(*) as 'Quantity'
from Type
group by Format
order by Count(*) desc;

--Average book rating
select round(avg(Rating),2) 'Average Rating'
from Rating_and_Reviews;

--Price in relation to format
select t.Format, avg(p.Price) as 'avg price'
from Books b
join Type t
on b.Book_id = t.Book_id
join Price p
on p.Book_id = b.Book_id
join Rating_and_Reviews r
on r.Book_id = b.Book_id
group by t.Format
order by 'avg price' desc;

--Finding the finalists
select *
from View_All
where
Description like '%Information%' and Description like '%Software%'
or
Description like '%Algorithm%' and Description like '%Information%'
or
Description like '%Algorithm%' and Description like '%Software%';
```

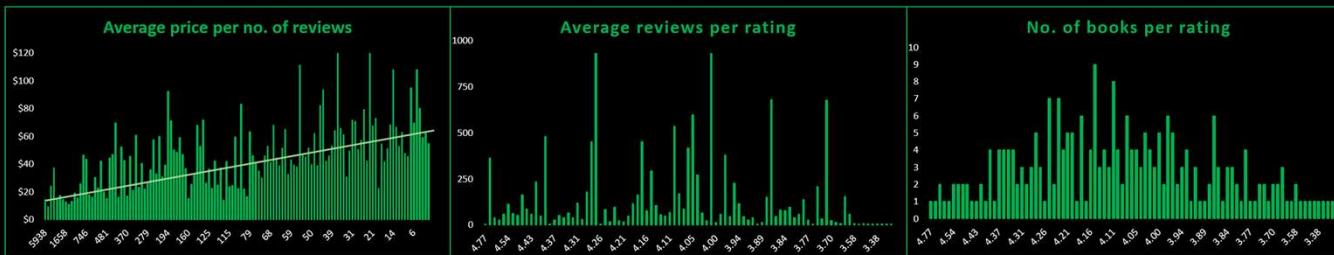
Data Visualization & Insights

Computer Science and Programming Books

Total 247 Books	Thickest 3168 Pages 477 Thinnest 120	Most 2629 Reviews 164 Least 1	Top 4.77 Rating 4.09 Flop 3.22	Most Expensive \$235.65 Price \$53.49 Cheapest \$11.00	Most common Format Paperback 146 59% Hardcover 82 33% Kindle eBook 15 6%	Format Average Price Boxed Set \$220.39 Hardcover \$63.94 Paperback \$45.91 Kindle eBook \$43.08
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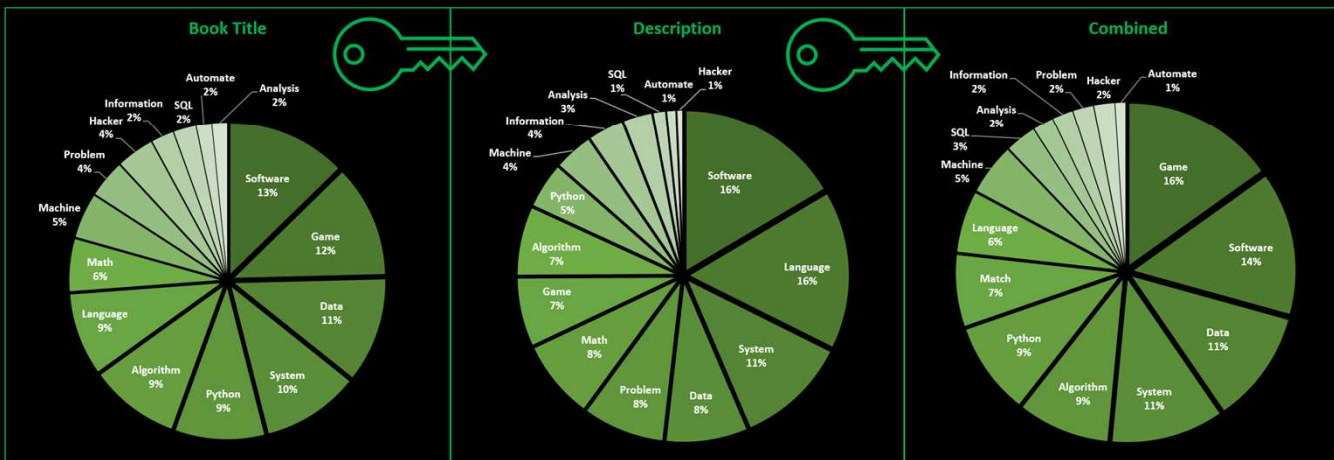


Book Title
3D Game Engine Design: A Practical Approach to Real-Time Computer Graphics (The Morga...
3D Math Primer for Graphics and Game Development
97 Things Every Programmer Should Know: Collective Wisdom from the Experts
A Discipline for Software Engineering
A Smarter Way to Learn JavaScript: The new approach that uses technology to cut your effo...
A Tour of C++
Accelerate: Building and Scaling High-Performing Technology Organizations
Accelerated C++: Practical Programming by Example
Advanced Programming in the UNIX Environment
Adventures in Minecraft
Agile Retrospectives: Making Good Teams Great



Description
A fascinating exploration of how insights from computer algorithms can be applied to our ev...

Book ID
271



	Average Rating	Average Reviews
Automate	4.27	153
Python	4.21	83
Information	4.21	703
System	4.17	88
Algorithm	4.16	295
Software	4.12	220
Math	4.09	316
Game	4.07	10
Problem	4.05	17
Data	4.03	65
Analysis	4.03	74
SQL	3.99	23
Machine	3.97	113
Language	3.97	112
Hacker	3.96	1037



Results 244
Rating 270
Reviews 132

Conclusion

The Finalists

Appears in most results

Book ID: 244

Title:

The Art of Computer
Programming, Volume 1:
Fundamental Algorithms

Rating: 4.37

Reviews: 44

Price: \$93.46

Best rating

Book ID: 270

Title:

The Art of Computer
Programming, Volumes 1-4a
Boxed Set

Rating: 4.77

Reviews: 4

Price: \$220.39

Most reviews

Book ID: 132

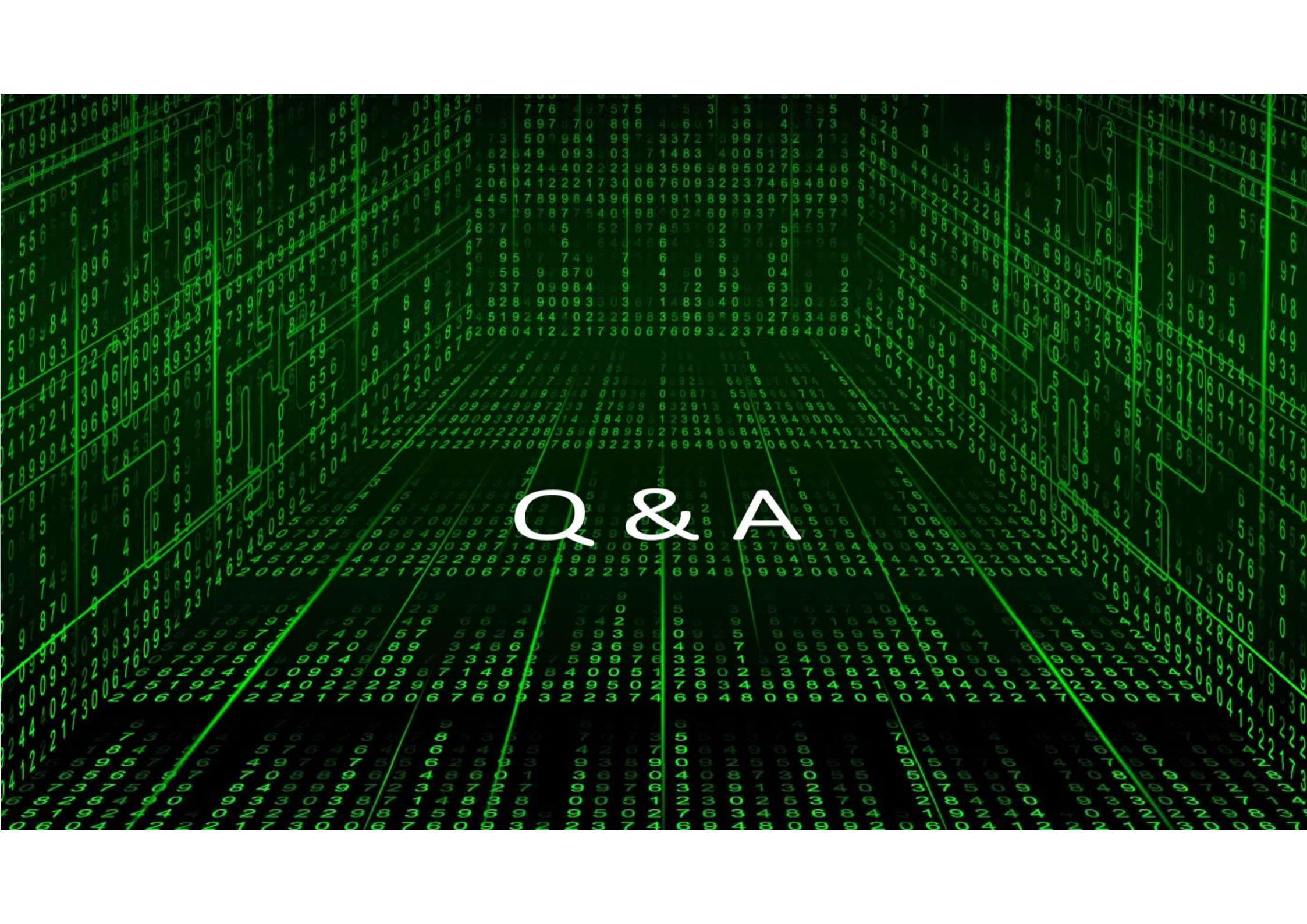
Title:

Designing Data-Intensive
Applications: The Big Ideas
Behind Reliable, Scalable,
and Maintainable Systems

Rating: 4.72

Reviews: 362

Price: \$45.56



Q & A