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# Kindle eBook Recommender

A Content and Collaborative  
Approach

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Jan, 2022

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# Overview

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**01**

## Business Problem

eBook recommendations

**02**

## Data Understanding

eBook reviews & ratings

**03**

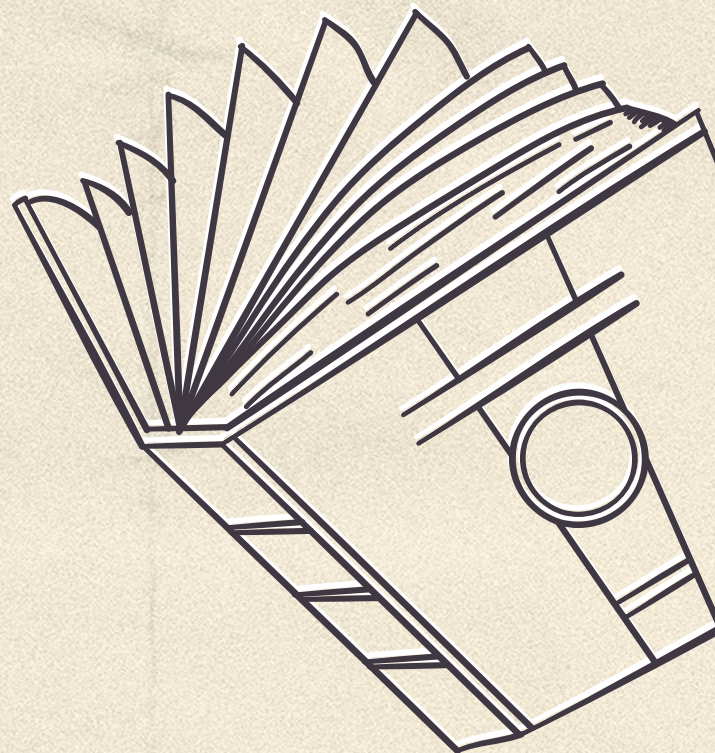
## Methods & Modeling

Collaborative filtering  
Content-based

**04**

## App & Conclusion

Existing reviewer  
New user





# 01: Business Problem

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- Paper books vs. eBooks
- Amazon Kindle eBooks
- Large range of genres
- Rating system - new reviewers





## 02: Data Understanding

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### Kindle eBook Data

Data Source  
5-core dataset  
Kindle Store



### eBook Reviews

1.4 million reviews  
131k reviewers  
94k ebooks



### Reviewer Rating

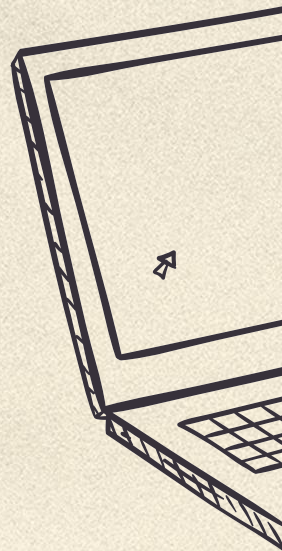
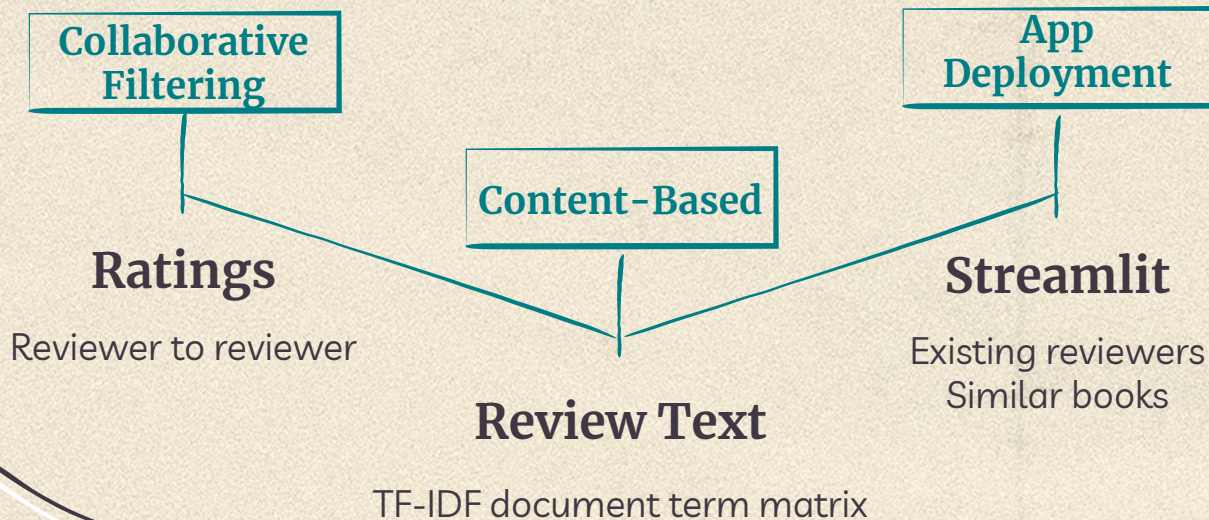
1.3 million ratings  
98k reviewers  
92k ebooks





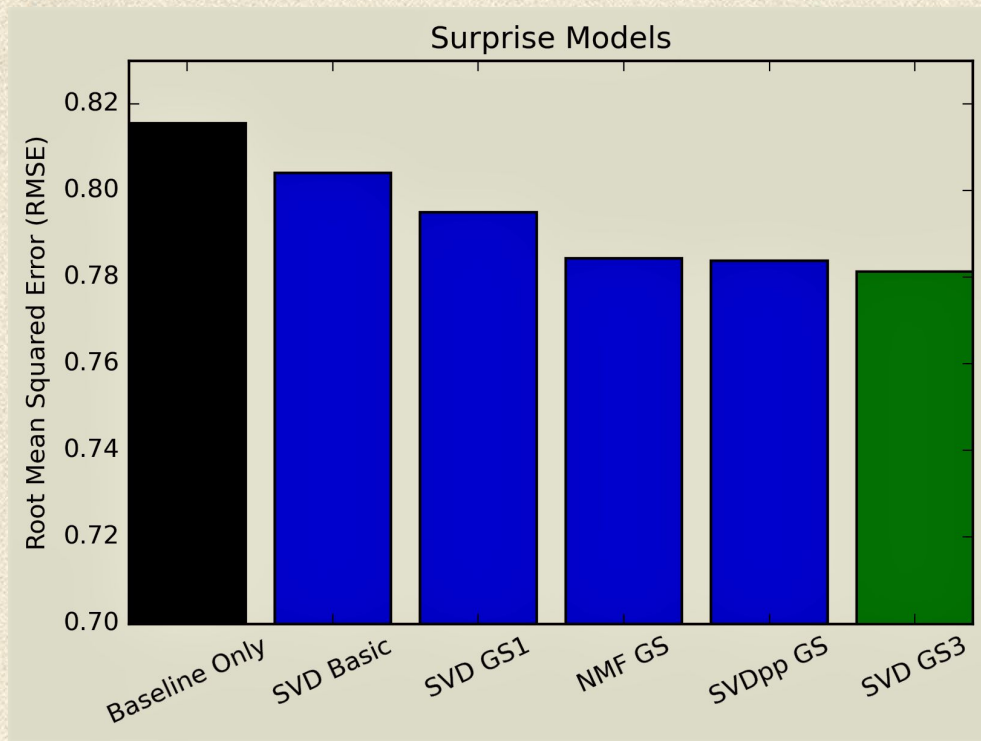
# 03: Methods

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# 03: Modeling: Collaborative Filtering with Surprise

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# Collaborative Filtering Example

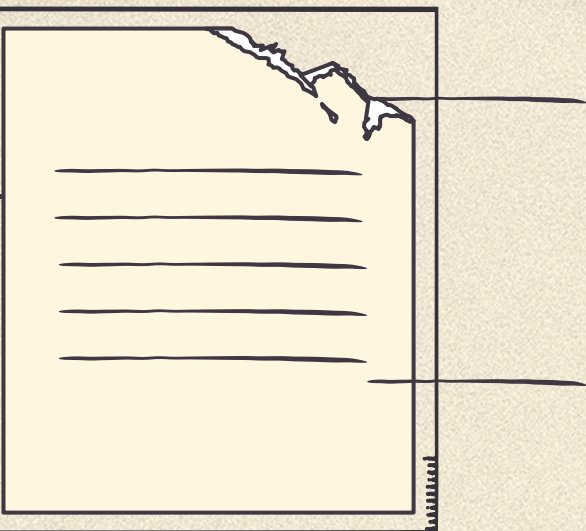


UserId: A26GE9ZG68SKIQ  
How many recommendations? 10

	ASIN	Title	Author	Genre	# Pages	Word Wise	Lending	Estimated Rating
0	B00M64QIWW	John & Jackie	TJ Klune	Literature & Fiction	95	1	1	4.962664
1	B00O02AMKW	Snowfall (Novella)	Mary Ann Rivers	Literature & Fiction	143	1	0	4.936640
2	B012WCOYQ4	The Rise of Ren Crown	Anne Zoelle	Children's eBooks	449	1	1	4.906841
3	B00SEKT3M4	The Player (Rockliffe Book 3)	Stella Riley	Literature & Fiction	327	1	1	4.904327
4	B006BG7Q1I	Love Intertwined Vol. 1	Pepper Pace	Literature & Fiction	222	1	1	4.898928
5	B015WXSNI	Holy Spy: A John Shakespeare Mystery	Rory Clements	Mystery, Thriller & Suspense	485	1	0	4.888171
6	B00O0AG24Y	Inspector Hobbes and the Gold Diggers: Comedy ...	Wilkie Martin	Mystery, Thriller & Suspense	329	1	1	4.887218
7	B00BR70E2E	Captain Lacey Regency Mysteries Volume Two	Ashley Gardner	Mystery, Thriller & Suspense	899	1	1	4.873885
8	B013WZRWMS	Ships and Stings and Wedding Rings (The Chron...	Jodi Taylor	Science Fiction & Fantasy	51	1	0	4.872621
9	B00JH6HSQW	A Woman of Experience (The Sojourners Series, ...	Kay Gregory	Literature & Fiction	394	1	1	4.862539



# 03: Modeling: Content-Based with Cosine Similarity



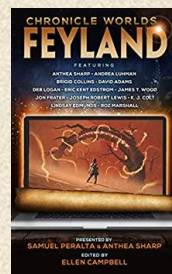
## Review Text

Compiled review text.

## Function

Returns the top  
n-recommendations.

## Example



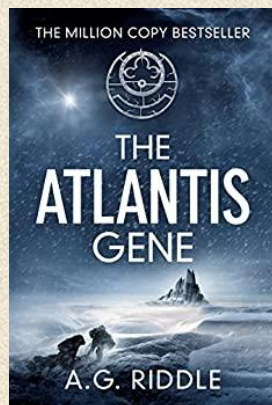
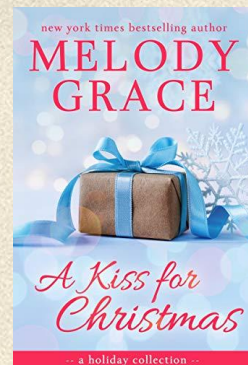


# Content-Based Examples

Title: A Kiss for Christmas: A Holiday Collection

How many recommendations? 5

	ASIN	Title	Author	Genre	# Pages	Word Wise	Lending
0	B00AXTM8G2	One Perfect Night (The Sullivans)	Bella Andre	Literature & Fiction	61	1	1
1	B00BVA2QBO	The Mating Chase (Werewolves of Montana Book 1)	Bonnie Vanak	Literature & Fiction	178	1	1
2	B00C45BQT8	Wounded (An Aspen Series Novella) (Prequel to Relentless)	Cindy Stark	Literature & Fiction	86	1	1
3	B00BV0IM9E	Hearts Aflame Collection: 4-Book Bundle	Melissa F. Hart	Literature & Fiction	114	1	1
4	B00GY34GUM	The Sheik's Defiant Fiance	Elizabeth Lennox	Literature & Fiction	86	1	1



Title: The Atlantis Gene: A Thriller (The Origin Mystery, Book 1)

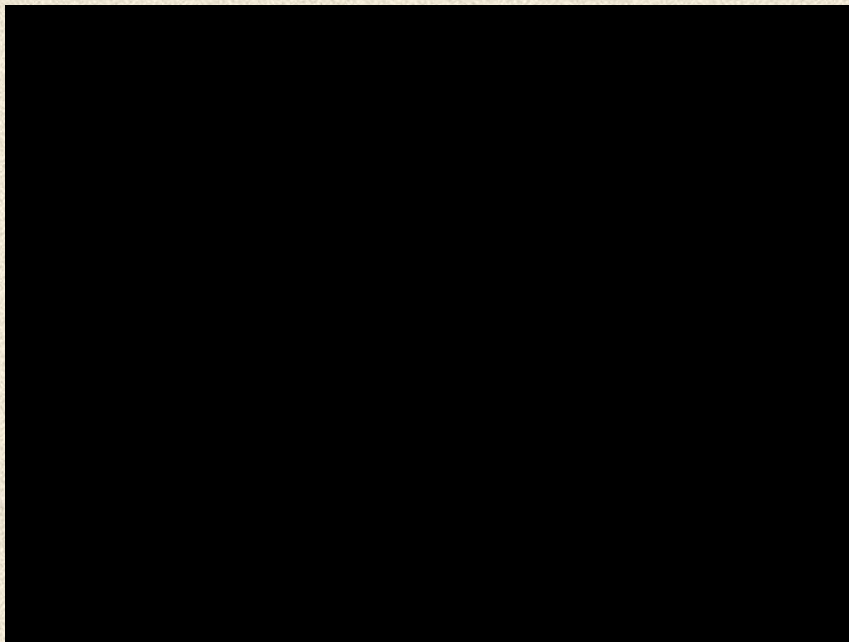
How many recommendations? 5

	ASIN	Title	Author	Genre	# Pages	Word Wise	Lending
0	B01AW25GRC	Doubt (Caroline Auden Book 1)	C. E. Tobisman	Literature & Fiction	348	1	0
1	B0070CSKE4	The Twelve Stones (The Twelve Stones, Book 1)	RJ Johnson	Literature & Fiction	354	1	1
2	B018SCGDWK	Dead Lawyers Don't Lie: A Gripping Thriller (Jake Wolfe Book 1)	Mark Nolan	Literature & Fiction	602	1	1
3	B00KH3Z53W	Hacker For Hire (Ted Higuera Series Book 2)	Pendelton Wallace	Literature & Fiction	484	1	1
4	B00NQLAPQE	On Distant Shores (Earth Exiles Book 1)	Mark Harritt	Literature & Fiction	269	1	1



## 04: App Demo (in development)

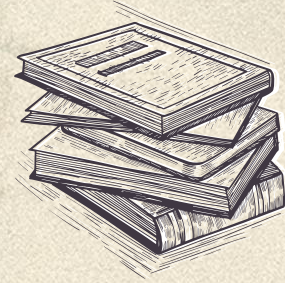
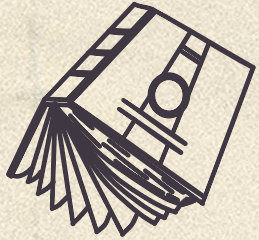
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# 04: Conclusion

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One click purchase  
More data  
Genre depth  
Beyond kindle  
Amazon App





# Thank You

Do you have any questions?

**Daniel Burdeno**

Follow Project Updates on Github



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