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Tell me a story...
A Children's Book Recommender

✨ Techniques & Tools:

- Python | Jupyter | Microsoft Excel | Streamlit
- Content-based recommender
- Natural Language Processing (NLP)
- Machine Learning using TF-IDF weightings

🕐 Duration: 3 weeks
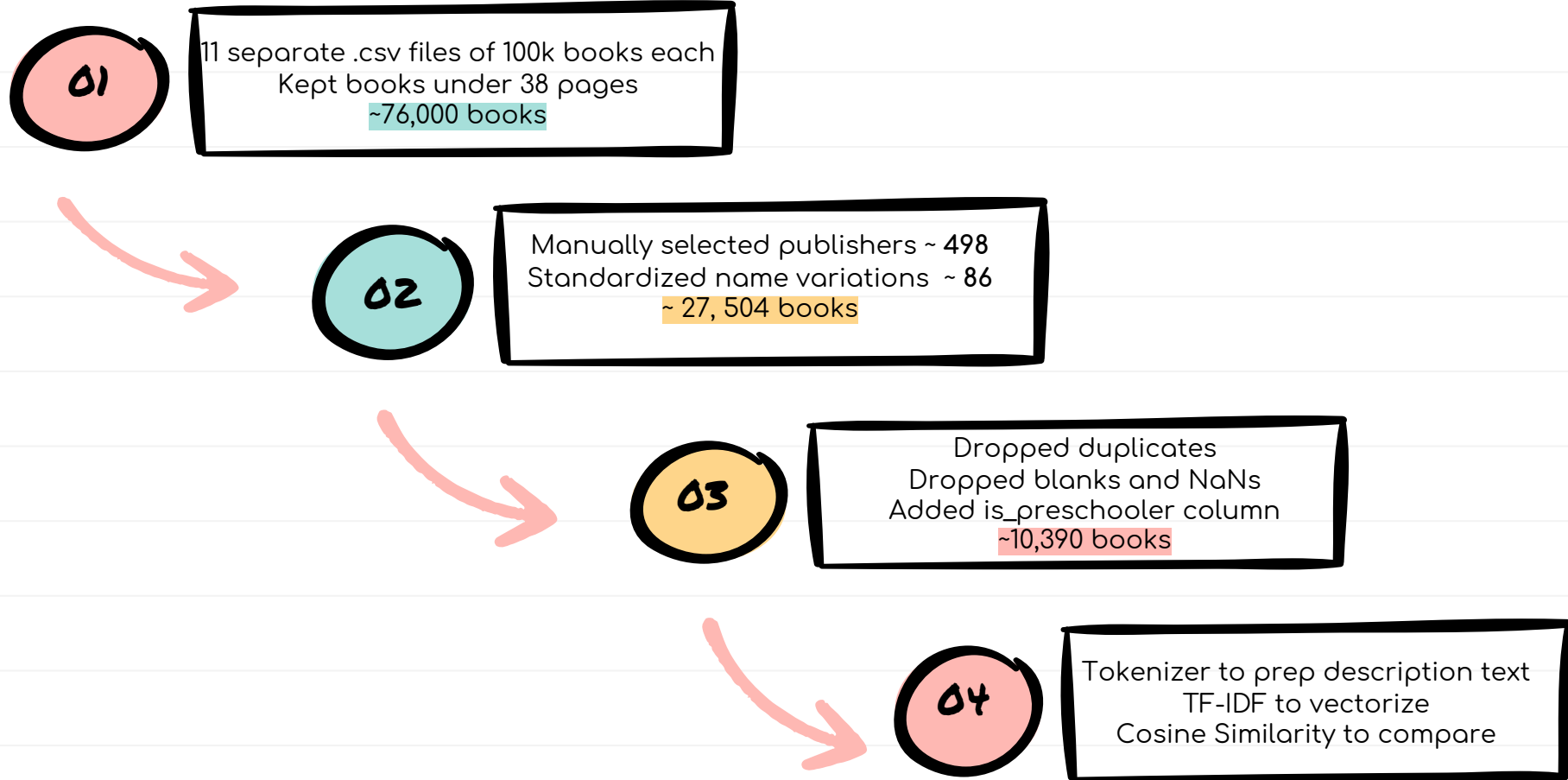
When Once Upon A Time...
There was a Need:

"We've read this book so much, we have it memorized!!

Help me find new children's books
similar to the stories my kids already love!"

A Hero Appeared: Tell Me A Story (TMAS)

- A content-based child book recommender system

- Recommends books based on similarities in the book descriptions
  using natural language processing (NLP); ranked by similarity scores

Getting To Happily Ever After

01

11 separate .csv files of 100k books each
Kept books under 38 pages
~76,000 books

02

Manually selected publishers ~ **498**
Standardized name variations ~ **86**
~ 27, 504 books

03

Dropped duplicates
Dropped blanks and NaNs
Added is_preschooler column
~10,390 books

04

Tokenizer to prep description text
TF-IDF to vectorize
Cosine Similarity to compare

TMAS Version one:

Tell Me a Story...

📖A Content-Based Children's Book Recommender 📖

Select one of your child's favourite books from the drop down list below and TMAS will recommend some similar titles for you to try out.

animals don't wear pajamas: a book about sleeping	▾

📗That's a good one! 📗

Show me Similar Books

Titles Recommended for you:

	name	similarity
3420	cool bopper's choppers	0.2522
4913	the mole sisters and p…	0.2440
4498	the jazzy alphabet	0.2267
7275	henry's baby	0.2216
4736	mole and the baby bird	0.2137
5927	bravemole	0.2006
1326	baba yaga and the wise…	0.1816
1402	four little old men: a…	0.1780

Want to see the the entire dataframe behind TMAS?

☐ Give me the whole library!

```
similar_books = content_recommender("the bone keeper", True, tfidf_scores)
similar_books.head(10)
```

	name	similarity
3037	bones and the dog gone mystery (bones mysterie...	0.316017
3004	bones and the cupcake mystery (bones mysteries...	0.251207
6959	the bone talker	0.250863
5536	the bone man: a native american modoc tale	0.246213
6585	mister bones: dinosaur hunter	0.240057
904	bones and the birthday mystery (bones mysterie...	0.202886
5948	the teeny tiny woman: an old english ghost tale	0.199999
1670	benny	0.188995
7067	the teeny tiny woman	0.184541
2404	digging up dinosaurs	0.183855

TMAS VERSION TWO:

- App update in progress
- Filtered by is_preschooler age group
  - True = 1 (3+ years old) > 30pgs
  - False = 0 (0-2 years old) <30pgs

+ BEYOND:

  - Dataset with real ages / categories
  - Parts of speech categorization
  - Filter by genre / topic

And They all Read Happily Ever After....

thank you

Let's connect:

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