



Analyzing Spotify Reviews with NLP

- HOPE MILLER



Purpose

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Background

- As of today, Spotify has over 27.2 million reviews on the Google Play app store and 25 million on the Apple App Store

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Goal

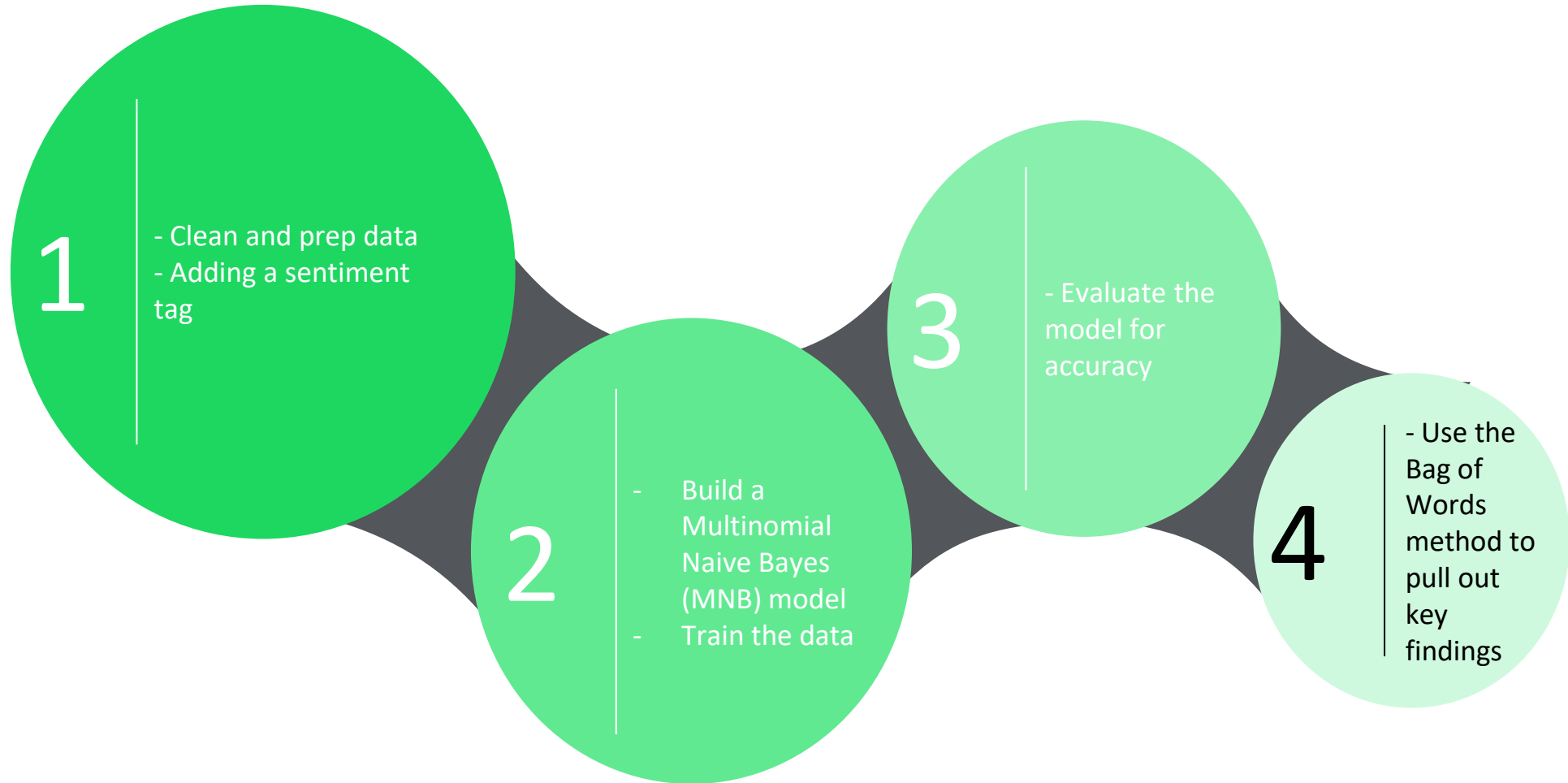
- Develop a way to quickly analyze customer satisfaction and get customer insight related to the app.
- Bugs and applications errors may also be uncovered through reviews.

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Approach

- Over 61,000 reviews were scraped off the Google Play app store
- Looking at what the customers say in their ratings gives un-bias insight into how Spotify is doing, in terms of customer satisfaction.

Method



Results: MNB Model

- Ratings: **67% accuracy**

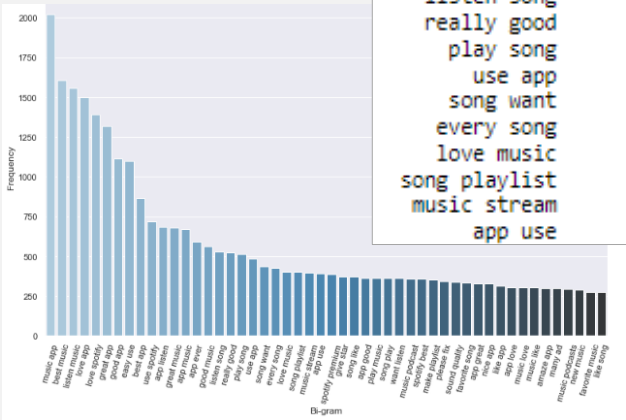
	precision	recall	f1-score	support
1	0.60	0.89	0.72	9987
2	0.62	0.25	0.35	4021
3	0.63	0.24	0.35	3845
4	0.53	0.35	0.43	4423
5	0.79	0.88	0.83	12370
accuracy			0.67	34646
macro avg	0.64	0.52	0.54	34646
weighted avg	0.67	0.67	0.64	34646

- Sentiment Analysis: **80% accuracy**

	precision	recall	f1-score	support
negative	0.75	0.89	0.81	14008
neutral	0.62	0.16	0.26	3845
positive	0.86	0.87	0.87	16793
accuracy			0.80	34646
macro avg	0.75	0.64	0.65	34646
weighted avg	0.79	0.80	0.78	34646

Results: Key Findings

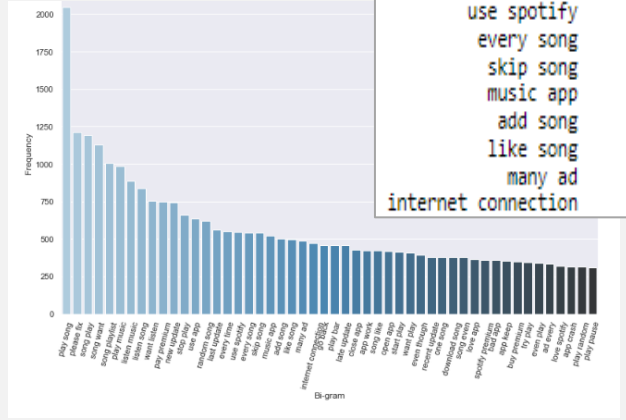
Positive Reviews:



music app	2021	spotify premium	385
best music	1608	give star	374
listen music	1557	song like	371
love app	1501	app good	363
love spotify	1391	play music	363
great app	1318	song play	361
good app	1115	want listen	361
easy use	1099	music podcast	359
best app	867	spotify best	359
use spotify	719	make playlist	353
app listen	683	please fix	344
great music	680	sound quality	339
app music	668	favorite song	334
app ever	590	app great	331
good music	565	nice app	329
listen song	527	like app	314
really good	526	app love	306
play song	512	music love	304
use app	487	music like	303
song want	437	amaze app	299
every song	426	many ad	297
love music	403	music podcasts	294
song playlist	401	new music	291
music stream	398	favorite music	276
app use	393	like song	275

The app overall, vast song selections, Spotify Premium, and podcast

Negative Reviews:



play song	2045	go back	458
please fix	1213	play bar	456
song play	1192	late update	456
song want	1127	close app	428
song playlist	1005	app work	420
play music	983	song like	420
listen music	886	open app	417
listen song	839	start play	413
want listen	751	want play	408
pay premium	746	even though	394
new update	741	recent update	380
stop play	660	one song	378
use app	637	download song	378
random song	622	song even	377
last update	562	love app	364
every time	551	spotify premium	358
use spotify	548	bad app	357
every song	542	app keep	353
skip song	540	buy premium	347
music app	521	try play	343
add song	500	even play	337
like song	498	ad every	335
many ad	484	love spotify	319
internet connection	470	app crash	316
		play random	315
		play pause	311

Paying for Spotify Premium, ads, not being able to skip songs, song suggestions, and new updates