



The popularity of “*Game of thrones*”

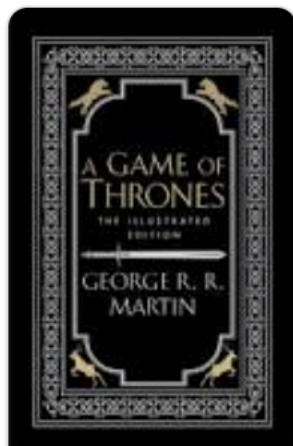
MAT 259 20winter assignment I: Knowledge Discover in Databases

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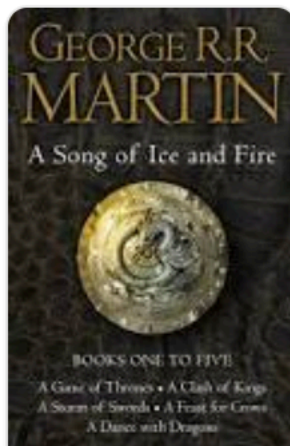
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Introduction

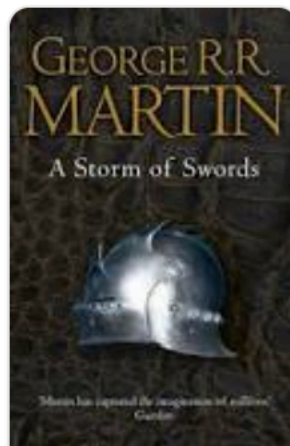
- How popularity of the epic fantasy novel series “*A Song of Ice and Fire*” changes over years?
- Is the popularity of the original novels tightly related to the premiere of the HBO television series “*Game of Thrones*” which names after the first novel of the fantasy novel series?
- “*A Song of Ice and Fire*” novel series:



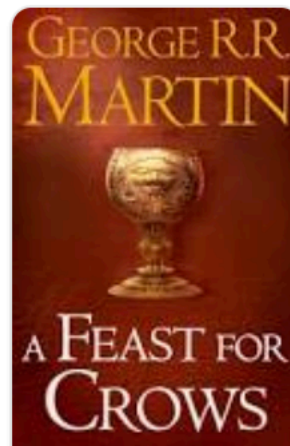
A Game of
Thrones
1996



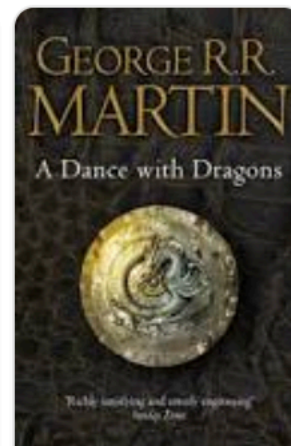
A Clash of
Kings
1998



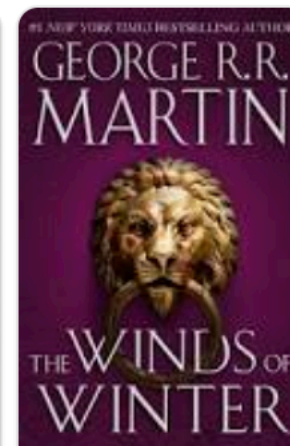
A Storm of
Swords
2000



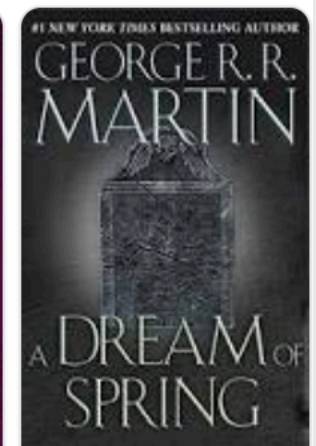
A Feast for
Crows
2005



Game of
Thrones: A F...
2011



The Winds of
Winter



A Dream of
Spring

Introduction

- 8 Seasons of “Game of Thrones” TV series and their relations to the original novels:

Season	Last aired	Novel(s) adapted
Season 1	June 19, 2011	A Game of Thrones (first novel)
Season 2	June 3, 2012	A Clash of Kings (second novel) and some early chapters from A Storm of Swords (third novel)
Season 3	June 9, 2013	About the first two-thirds of A Storm of Swords
Season 4	June 15, 2014	The remaining one-third of A Storm of Swords and some elements from A Feast for Crows (forth novel) and A Dance with Dragons (fifth novel)
Season 5	June 14, 2015	A Feast for Crows, A Dance with Dragons and original content, with some late chapters from A Storm of Swords and elements from The Winds of Winter (sixth novel)
Season 6	June 26, 2016	Original content and outline from The Winds of Winter, with some late elements from A Feast for Crows and A Dance with Dragons
Season 7	August 27, 2017	Original content and outline from The Winds of Winter and A Dream of Spring
Season 8	May 19, 2019	Original content and outline from The Winds of Winter and A Dream of Spring

Data Overview (MySQL queries)

```
• SELECT
    LOWER(title),
    itemtype,
    YEAR(cout) AS years,
    COUNT(title) AS checkoutcounts
FROM
    spl_2016.outraw
WHERE
    (LOWER(title) LIKE '%game of thrones%'
     OR LOWER(title) LIKE '%clash of kings%'
     OR LOWER(title) LIKE '%storm of swords%'
     OR LOWER(title) LIKE '%feast for crows%'
     OR LOWER(title) LIKE '%dance with dragons%'
     OR LOWER(title) LIKE '%winds of winter%'
     OR LOWER(title) LIKE '%dream of spring%')
    AND YEAR(cout) < 2020
GROUP BY title , itemtype , YEAR(cout)
ORDER BY LOWER(title) , itemtype , YEAR(cout) ASC
LIMIT 500;
```

First, I got all the items related to “A Song of Ice and Fire” including books, CDs, DVDs, etc.

Data Overview (Output)

LOWER(title)	itemtype	years	checkoutcounts
double dream of spring	acbk	2007	2
double dream of spring	acbk	2008	2
double dream of spring	acbk	2010	1
double dream of spring	acbk	2011	1
ecstasy and terror from the greeks to game of	acbk	2019	16
geeky chef cookbook unofficial recipes from dc	acbk	2015	27
geeky chef cookbook unofficial recipes from dc	acbk	2016	22
geeky chef cookbook unofficial recipes from dc	acbk	2017	13
geeky chef cookbook unofficial recipes from dc	acbk	2018	8
geeky chef cookbook unofficial recipes from dc	acbk	2019	20

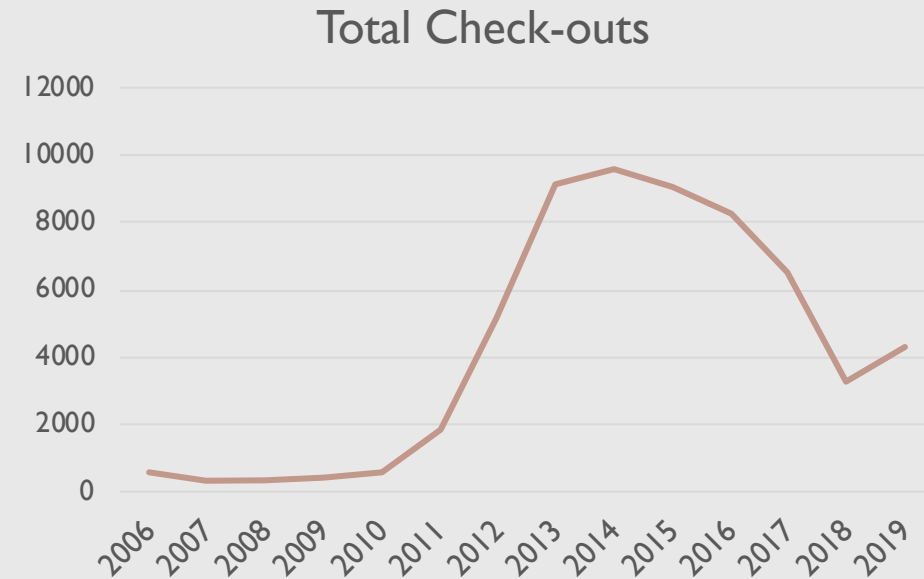
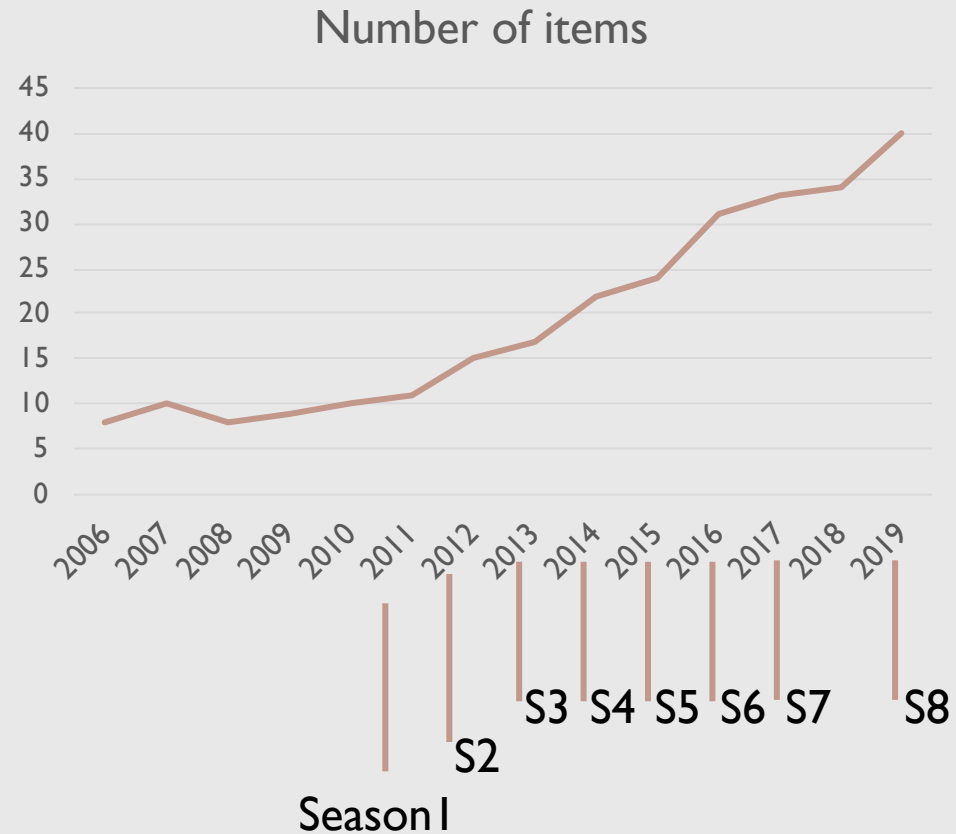
From the output table, we can see that some of the items are not related to the novel series. Thus, we will exclude these items from the following analysis

Frequency of Checkouts(MySQL queries)

```
• SELECT
    COUNT(DISTINCT bibNumber) AS bibNumbercount,
    COUNT(title) AS checkouts,
    YEAR(cout) AS years
FROM
    spl_2016.outraw
WHERE
    (LOWER(title) LIKE '%game of thrones%'
    OR LOWER(title) LIKE '%clash of kings%'
    OR LOWER(title) LIKE '%storm of swords%'
    OR LOWER(title) LIKE '%feast for crows%'
    OR LOWER(title) LIKE '%dance with dragons%'
    OR LOWER(title) LIKE '%winds of winter%'
    OR LOWER(title) LIKE '%dream of spring%')
    AND LOWER(title) != 'double dream of spring'
    AND LOWER(title) != 'ecstasy and terror from the greeks to game of thrones'
    AND LOWER(title) != 'geeky chef cookbook unofficial recipes from doctor who
    game of thrones harry potter and more real life recipes for your favorite fantasy foods'
    AND YEAR(cout) < 2020
GROUP BY YEAR(cout)
```

Second, I summarized how many items related the fantasies were checked out in the library per year and how many times people check-out these items in total per year.

Frequency of Checkouts(Output)



As shown in the line graphs above, Season 1 and Season 2 of the TV series successfully aroused people's interest in knowing more about the fantasies. However, this effect has dropped since Season 4 (the right graph). But still more items related to the fantasies have been released (the left graph).

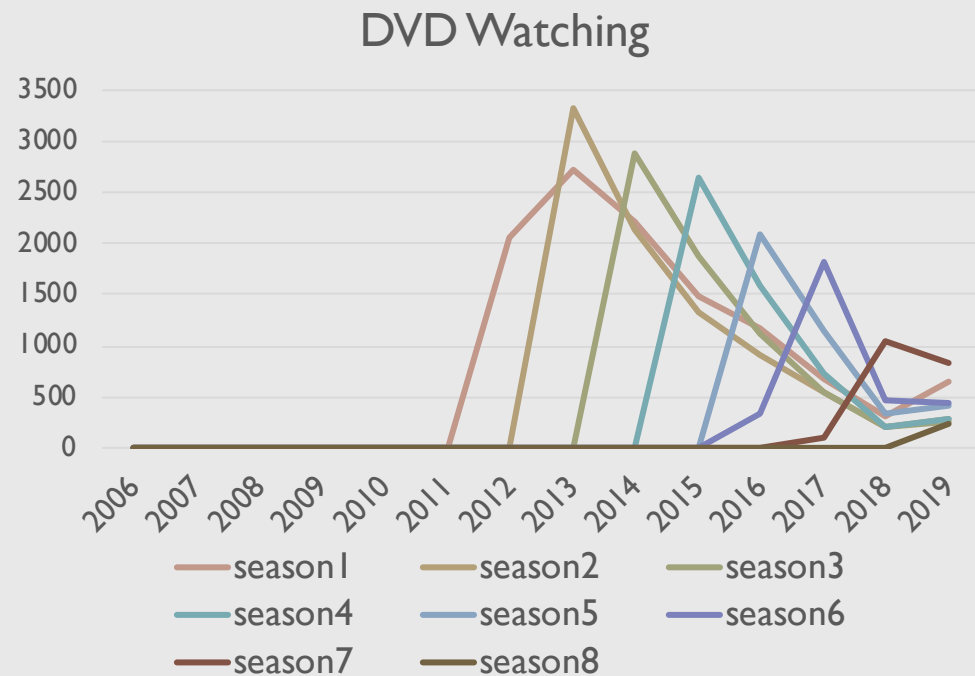
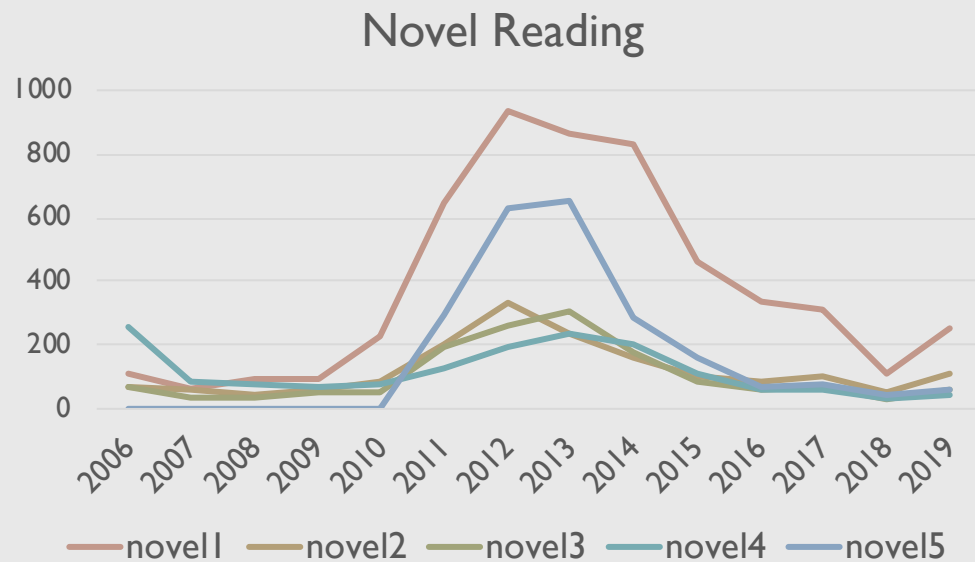
Novel Reading versus DVD Watching (MySQL queries)

```
SELECT
  YEAR(cout) AS years,
  COUNT(CASE
    WHEN
      (LOWER(title) = 'game of thrones'
      OR LOWER(title) = 'game of thrones the graphic novel Volume 1'
      OR LOWER(title) = 'game of thrones the graphic novel Volume 2'
      OR LOWER(title) = 'game of thrones the graphic novel Volume 3'
      OR LOWER(title) = 'game of thrones the graphic novel Volume 4')
    THEN
      1
  END) AS novel1,
  COUNT(CASE
    WHEN
      (LOWER(title) = 'clash of kings'
      OR LOWER(title) = 'clash of kings the graphic novel Volume 1'
      OR LOWER(title) = 'clash of kings the graphic novel Volume 2'
      OR LOWER(title) = 'clash of kings book two of A song of ice and fire')
    THEN
      1
  END) AS novel2,
  COUNT(CASE
    WHEN LOWER(title) = 'storm of swords' THEN 1
  END) AS novel3,
  COUNT(CASE
    WHEN LOWER(title) = 'feast for crows' THEN 1
  END) AS novel4,
  COUNT(CASE
    WHEN LOWER(title) = 'dance with dragons' THEN 1
  END) AS novel5
FROM
  spl_2016.outraw
WHERE
  itemtype = 'acbk' AND YEAR(cout) < 2020
GROUP BY YEAR(cout)
LIMIT 500;
```

```
SELECT
  YEAR(cout) AS years,
  COUNT(CASE
    WHEN (LOWER(title) = 'game of thrones the complete first season') THEN 1
  END) AS season1,
  COUNT(CASE
    WHEN (LOWER(title) = 'game of thrones the complete second season') THEN 1
  END) AS season2,
  COUNT(CASE
    WHEN LOWER(title) = 'game of thrones the complete third season' THEN 1
  END) AS season3,
  COUNT(CASE
    WHEN LOWER(title) = 'game of thrones the complete fourth season' THEN 1
  END) AS season4,
  COUNT(CASE
    WHEN LOWER(title) = 'game of thrones the complete fifth season' THEN 1
  END) AS season5,
  COUNT(CASE
    WHEN LOWER(title) = 'game of thrones the complete sixth season' THEN 1
  END) AS season6,
  COUNT(CASE
    WHEN LOWER(title) = 'game of thrones the complete seventh season' THEN 1
  END) AS season7,
  COUNT(CASE
    WHEN LOWER(title) = 'game of thrones the complete eighth season' THEN 1
  END) AS season8
FROM
  spl_2016.outraw
WHERE
  itemtype = 'acdvd' AND YEAR(cout) < 2020
GROUP BY YEAR(cout)
LIMIT 500;
```

Finally, let's only focus on how many times people read original novels (books) and how many times people borrowed DVDs (HBO TV series) .

Novel Reading versus DVD Watching (Output)



As shown in the left graph, the first novel and the fifth novel are more popular than the others and they were mainly read during year 2012 to year 2014. However, overall, more people choose to watch DVDs instead of reading novels. Note that each season was mainly borrowed during the year they were just released (the right graph).

Conclusion

- The premieres of the HBO television series “Game of Thrones” do arouse the public’s interest in reading the novels, but mainly during the year 2012 to 2014, when the Season 1 to Season 4 were just released. In other words, Season 5 to Season 8 were not that successful than the previous seasons.
- Also, people were more interested in watching DVDs than reading novels but the interest in DVDs did not last long. People mainly borrowed the DVDs during the year the DVDs were just released.
- Staring from the year of 2012, there is a linear trend showing that more items (including DVDs, CDs, books, etc.) related to the fantasies were released. But based on this analysis, people may not be that interested in these items as time goes by.