

Assignment 2 - Breakdown

March 18, 2022 3:22 PM

First, try to display 3 movies out of the 20 movies for '300' search term.

Page size [3] Search TMDB by title [300] Search!
First | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Last
#1 Title: 300 Description: Based on Frank Miller's graphic novel, "300" is very loosely based the 490 B.C. Battle of Thermopylae, where the King of Sparta led his army against the advancing Persians; the battle is said to have inspired all of Greece to band together against the Persians, and helped usher in the world's first democracy.
 Display backdrop image
#2 Title: 300: Rise of an Empire Description: Greek general Themistocles attempts to unite all of Greece by leading the charge that will change the course of the war. Themistocles faces the massive invading Persian forces led by mortal-turned-god, Xerxes and Artemisia, the vengeful commander of the Persian navy.
 Display backdrop image
#3 Title: The 300 Spartans Description: Essentially true story of how Spartan king Leonidas led an extremely small army of Greek Soldiers (300 of his personal body guards from Sparta) to hold off an invading Persian army now thought to have numbered 250,000.
 Display backdrop image

First three

this could be achieved by controlling the number of displayed elements using a for loop:

```
page: 1
▼ results: Array(20)
▶ 0: {adult: false, backdrop_path: '/egI
▶ 1: {adult: false, backdrop_path: '/ch
▶ 2: {adult: false, backdrop_path: '/56
▶ 3: {adult: false, backdrop_path: null
▶ 4: {adult: false, backdrop_path: null
▶ 5: {adult: false, backdrop_path: '/n7
▶ 6: {adult: false, backdrop_path: '/co
▶ 7: {adult: false, backdrop_path: '/47I
```

for (int i = start-index; i < stop-index; i++)
 // display movie of the i-th index

3

Next, tie 'start-index' and 'stop-index' to a page!

Page #	First index	Last index
1	0	2
2	3	5
3	6	8
4	9	11
5	12	14
6	15	17
7	18	19

$\therefore \text{Math.ceil}(\frac{6}{3})$

20 elements
3 Page size

$$\underline{\text{start_index}} = \underline{\text{Page Size}} * (\underline{\text{Page ID}} - 1)$$

$$\underline{\text{stop_index}} = \underline{\text{Page Size}} * (\underline{\text{Page ID}} - 1) + \underline{\text{Page Size}}$$

Notice, each Page depends on the page size and Page id.

Hence, it makes sense to have a function :-

Function Display (Page-id, Page-size)

// Display a Page of 'Page-size' movies
// starting from Page Size * (Page ID - 1) movie.

Test 1: Fix the Page size to 3 and the second term to '300'
and test if seven buttons are working.

1 2 3 4 5 6 7

For now, create these buttons manually in HTML.

Neat, Let us Dynamically create these buttons.

Hint: use a for loop!

Math.ceil (Data.result.length / (Page-size))

Hint: use a for loop:

$\text{Math.ceil}(\text{data.result.length}) / (\text{Page-size})$

for (int $i = 1$; $i \leq \text{number_of_pages}$; $i++$) {
 // create and append } a button
 }

Since we are going to reconstruct these buttons every time the size changes, it makes sense to have the for loop in a function:-

function paginate-man()

1

}



Events - Part I

Page 1 of 3 < >

Search TMDB by title 300 [Search]

[First] [1] [2] [3] [4] [5] [6] [7] [Last]

#1

Title: 300

Description: Based on Frank Miller's graphic novel, "300" is veridically based in 480 B.C. Battle of Thermopylae, where the King of Sparta led his army against the advancing Persians; the battle is said to have inspired all of Greece to band together against the Persians, and helped usher in the world's first democracy.

Display backdrop image

#2

Title: 300: Rise of an Empire

Description: Greek general Themistokles attempts to unite all of Greece by leading the charge that will change the course of the war. Themistokles faces the massive invading Persian forces led by mortal-turned-god, Xerxes and Artemesia, the vengeful commander of the Persian navy.

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#3

Title: The 300 Spartans

Description: Essentially true story of how Spartan king Leonidas led an extremely small army of Greek Soldiers (300 of his personal body guards from Sparta) to hold off an invading Persian army now thought to have numbered 250,000.

Display backdrop image

① clicking on these buttons will invoke the display (Page ID); Page Size

② changing the page size will invoke the paginate-man()

and display (current page ID, new Page size)

Global Variables

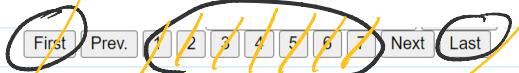
① the json Object received from TMDB

- to be updated every time is clicked

② the Current Page ID = null

4 5 6 7
4 5 6 7

- To be initialized based on



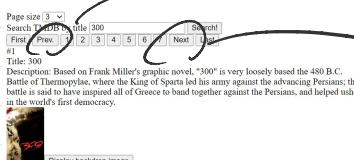
- To be incremented or decremented based on



③ Page Size = 35

④ Number of Pages = null

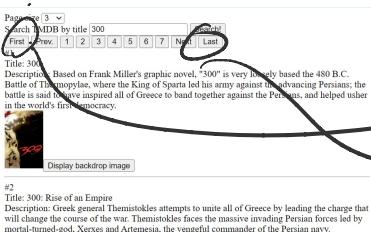
Events - Part II



③ to update the Current Page ID and invoke display(Current Page ID, Page Size)



① to invoke display(1, Page Size);
display(Number of Pages, Page size);



Page 3 ✓

Search IMDB by title 300

First | [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) Next | Last

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Display backdrop image

(1) to invoke
→ display (1, pageSize);
→ display (Number of Pages, pageSize);