

## **PROJECT PROPOSAL:**

Using information, we scrape from the web; can we build linear regression models from which we can learn about the movie industry?

We chose to focus on movies "Based on Novels" to determine which features predict success, as measured by Worldwide Gross. Using Beautiful Soup, we scraped movie data from [IMDB.com](https://www.imdb.com), [Boxofficemojo.com](https://www.boxofficemojo.com). on the following features:

1. MPAA Rating (G/PG/PG-13/R)
2. Runtime
3. IMDB Score
4. Opening # Theaters (Domestic)
5. Opening Gross (Domestic)
6. Total # Theaters (Domestic)
7. Total Gross (Domestic)
8. Budget
9. Genre: Action, Adventure, Biography, Comedy, Crime, Documentary, Drama, Family, History, Horror, Music, Mystery, Romance, Sport, Thriller, War, Western

## **Files:**

1. `movies.csv` contains the data scraped from the web
2. `web_scraping.ipynb` shows the process of scraping movie data from the 2 websites
3. `model_testing.ipynb` shows the process of evaluating linear regression models and plotting feature relationships

By :Rana Alqahtani &Khulud Alshamrani&Ohoud Albabtain