# Brainstorming Template

This template can be used for many topics to assist in brainstorming a solution to a project. It is not meant to be limiting, but to provide a starting point for your design topic considerations. You can fill this chart out for as many topics as necessary.

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| --- |
| **Topic #1: <Making OMDB predictions>** |
| Using the OMDB extract API and use the API to create a database for movie posters and based on those posters predict the movie genre or earnings or which movie to recommend. |
| **Impact** |
| Helping movie watchers make easier decisions on which movie to watch next. |
| **Project Goals** |
| Can I predict movie earnings based on the poster?  Can I predict Genre of the movie based on the posters?  Am I able to able to make predictions to users based on the movie posters. |
| **Literature Review / Environmental Scan / Market Research** |
| <https://www.researchgate.net/publication/351311535_Movie_Recommendation_System_through_Movie_Poster_using_Deep_Learning_Technique>  <https://medium.com/hackernoon/metflix-how-to-recommend-movies-part-2-54d2b6cfed13>  <https://towardsdatascience.com/creating-a-movie-recommender-using-convolutional-neural-networks-be93e66464a7>  <https://ceur-ws.org/Vol-1247/recsys14_poster19.pdf> |
| **Datasets** |
| serviceurl **=** 'http://www.omdbapi.com/?'  <https://github.com/harisx91/Recommender_System_DAV_6300/blob/master/Content_Based_Recommender/Content_Based_Recommender.ipynb> |

|  |
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| **Design concepts** |
| <describe your design in a 3-5 sentences> |
| Conceptual architecture |
| * What services might be used in solving the problem or addressing the topic outlined? * What are the considerations for the database(s), the processing and server architecture, and any networking consideration you might have, and the presentation layer? * Feel free to copy and paste an image that reflects a similar architecture and provide a citation |
| Analytical Design |
| * Outline briefly some of the metrics that you want to design your solution to meet highlighted frequency of updates, necessary aggregations, and data sources to complete the design? * Who might be the audience for the analytical output? * How might you construct the analytical outputs and how might you display the results? |
| Data Exchange/Processing Framework |
| * How might you process the data to align with the needs of the solution? * What would the data flow look like? |
| **Additional Comments** |
| <use this space to outline any additional comments on design, uses, assumptions about the scope of the topic if pursued, etc. > |
| **References and Hyperlinks** |
| <use this space to provide relevant hyperlinks or citations to your topic> |

Read Research papers:

Compile list of papers (Medium posts, blog posts)

Skip around the list

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 0% Read | 25% read |  |  | 100% read/understood |
| 1) |  |  |  |  |  |
| 2) |  |  |  |  |  |
| 3) |  |  |  |  |  |
| 4) |  |  |  |  |  |

5-20 papers decent understanding/ enough to implement it

50-100 papers amazing understanding

Reading 1 paper: (Multiple passes)

1. Title/abstract/figures
2. Introduction plus conclusion plus figures and skim rest (Skim related work section)
3. Read but skim/skip the math
4. Read whole thing but skip the parts that don’t make sense

Answers these questions:

1. What did authors try to accomplish
2. What are the key elements of the approach?
3. What can you use yourself?
4. What other references do you want to follow?

Sources of papers:

1. Twitter
2. ML subreddit
3. NIPS/ICLR/ICML
4. Google Academic papers

Math behind research papers:

1. Redrive the math yourself from reading the papers

Code:

1. Run an open-source code
2. Reimplement

Steady reading 2-3 papers/week not short