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# Business Expansion Engine

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# Problem Statement -

- ◉ When a new product is to be launched, it is crucial that the correct people are targeted for advertising.
- ◉ If those people having the highest affinity to the commodity you are publicizing are targeted, or in essence given a “free sample”, there is a high chance of the product gaining high popularity.
- ◉ The business expansion engine seeks to suggest a list of people within the user’s social network to whom the user should in essence give a “free sample” of the commodity being publicized so as to maximize the overall reach of the product.
- ◉ It is based on the concepts of Cascading.

# Approach

- ◉ Collect keywords pertaining to the commodity the user wishes to publicize.
- ◉ Get access to the user's social network and calculate the payoff of the commodity for each person in the network based on their online activity.
- ◉ Get the edge weights, i.e. the influence each person has over his/her neighbors by analysing online interactions (likes/comments etc).
- ◉ Apply the cascading scenario on different persons adopting the targeted behaviour and finally get a list of initial adopters such that the spread is maximum.

# Data

- ◉ List of friends of the user
- ◉ Social network activity of the friends and of the user. This includes statuses, comments, likes etc
- ◉ Facebook API to be used for data collection.
- ◉ Like data from the public pages which the people in the user's social network have followed.

# Project Timeline

- Facebook App & API interaction elements creation. Expected date: 10/24
- Back-end algorithm implementation testing. Expected date: 10/31
- User-side interface creation and back-end to front-end integration. Expected date: 11/7
- Testing & Debugging. Expected date: 11/14
- Documentation. Expected date: 11/21