**Cluster Analysis of Web User Sessions**

**Overview:**

* Targeted Advertisement, product/offer campaigns, providing discounts to lure in customer, etc are some of the major application areas of e-commerce.
* All the above mentioned application requires segmention of customers so as to ease the marketing of products.
* While there are traditionally many ways to group users/customers based on their personal characteristics, this projects aims to categorize them based on their navigational patterns (i.e pattern in webpages visited by a user) observed from their user sessions.
* Based on the page visits of a user we categorize the users.
* We do a group wise analysis of page hits which can be used to understand the needs of each segment.
* Additionally we build a user network based on sessions and do community detection to identify similar users for targeted advertisements.
* Also a web-page network is built in order identify important pages in a website. Based on the transition probability matrix formed we find the probability of page transitions.