RECOMMENDING TRAVEL PLANS USING GEO-TAGGED PHOTOS
AGENDA

• Recommendation System
• Travel Planning
• Geo-Tagged Photos
• What are we trying to achieve here?
RECOMMENDATION SYSTEM

• Subclass of “Information Filtering System” that seeks to predict the “rating” a user would give to any item.

• Used in Commercial Applications.

• Some real life recommendation systems that we see day to day are
  • Facebook: Content recommender for Social Media
  • Netflix: Playlist generator for Videos
  • Amazon: Product recommender
Travel Planning is a package of actions designed to encourage safe, efficient and fun travel experience.

Three important aspects of Travel Planning that we would like to incorporate in this project:

- User preferences
- Time arrangement
- Cost estimation
GEO-TAGGED PHOTOS

• A photograph associated with a geographical location (Latitude and Longitude).

• Flickr.com

• Meta Data
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WHAT ARE WE TRYING TO ACHIEVE

• We are trying to solve Bundle recommendation problem for Travel Planning.

• Bundle Recommendation: Recommending packages or bundles instead of a single entity.

• Difference between Simple recommendation and Bundle recommendation in terms of travel planning.
SIMPLE RECOMMENDATION

Discover the best of New Orleans
Sights and landmarks in New Orleans

Frenchmen Street
11,433 reviews
New Orleans

Jackson Square
15,340 reviews
New Orleans

French Quarter
21,337 reviews
New Orleans

Specialty shops in New Orleans

Boutique du Vampyre
573 reviews
New Orleans

Hex: Old World Witchery
487 reviews
New Orleans

Cigar Factory New Orleans
162 reviews
New Orleans
BUNDLE RECOMMENDATION

Package 1
Yosemite

One of the best ways to experience Yosemite is by taking a hike.

- Yosemite Valley
- Glacier Point Road
- Wawona and Mariposa Grove of Giant Sequoias
- Hetch Hetchy
- Crane Flat and White Wolf
- Tuolumne Meadows

Package 2
Colorado

1. Mason Creek to Old Mill Trail - 11 miles (difficult), Staunton State Park (near Conifer)
2. Devils Kitchen Trail - .75 miles (moderate), Colorado National Monument (near Grand Junction)
3. Rattlesnake Arches - 5 miles (difficult), McInnis Canyons National Conservation Area (near Grand Junction)
4. Hells Hole Trail - 8.2 miles (moderate), Mount Evans Wilderness (near Idaho Springs)
5. Blue Lakes - 5 miles (moderate), Mount Sneffels Wilderness (near Telluride)
6. Ponderosa Sisters Loop - 3.4 miles (moderate), Alderfer/Three Sisters Park (near Evergreen)
7. Travois Trail - 7 miles (moderate), Centennial Cone Park (near Golden)
WHAT ARE WE TRYING TO ACHIEVE

• Bundle → Package → Set of Point of Interests
  Ex: Set of Museums, set of Monuments

• Basic Unit → Single entity → Single Point of Interest
  Ex: The National World War II Museum

• How to Rank Bundles in Travel Planning?
YOUR ASSIGNMENT

Part 1 – Come up with an idea on how to rank single entities
   i. Clustering for Destination Discovery
   ii. Destination – Style Terms creation
   iii. Ranking Destinations based on User input

Part 2
• Come up with an idea on how to rank Bundles
  i. Creating Bundles based on User Preference
  ii. Ranking Bundles

OR

• Create Test Queries to come up with Manual recommendations for Bundles that can be used to evaluate the system
REFERENCES

1. **Photo2Trip: Generating Travel routes from Geo-Tagged Photos for Trip Planning**, Xin Lu, Changhu Wang, Jiang-Ming Yang, Yanwei Pang, Lei Zhang. Microsoft research.

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Thank you for attending today’s presentation.