

Data Source

Yelp Scrapped
Store Data

Web-Scrapped
Mall Data

Mall Geographic
Data

County Industry
Data



Data Filter and Join(Pig & Python)

Clean Store Data

Clean and Aggregate Mall Data



Create Data Matrix

Store Feature Matrix

Mall Feature Matrix

Mall and Store None
Negative Binary Matrix

Store Similarity Matrix

Mall Similarity Matrix



Recommendation System

item-based
collaborative
filtering

user-based
collaborative
filtering

content
based
recommend
ation

one class
collaborative
filtering

top-k items
recommend
ation