

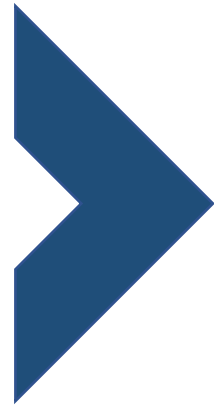
Main structures

- Feature extraction
 - Item description embedding -> cosine distance -> k-NN *(set preference range)*
 - K-means to generate categories of products *(generate preference categories)*
- Profile Setup (Offline learning)
 - Previous activities features (ratings, gender, age, money_spent) -> random forest regression
-> preferred category
- Online Prediction
 - Sampling products from `preference range` in preferred category* -> set selected product as new center, sampling again.

* can also try sample 1-p proportion of products in preferred category, as well as p proportion from other categories to avoid being too specific

Feature Pre-
processing

Offline Learning



Recommendation

User Feedback

