Subtask 1:

Sources:

<https://towardsdatascience.com/normalized-discounted-cumulative-gain-37e6f75090e9>

Subtask2:

Embedding sources:

<https://towardsdatascience.com/calculating-document-similarities-using-bert-and-other-models-b2c1a29c9630>

<http://yaronvazana.com/2018/09/20/average-word-vectors-generate-document-paragraph-sentence-embeddings/>

<https://medium.com/swlh/sentiment-classification-using-word-embeddings-word2vec-aedf28fbb8ca>

<https://ebbnflow.tistory.com/154>

logistic regression sources:

<https://medium.com/technology-through-the-prism/implementation-of-logistic-regression-without-using-built-in-library-90e2afffa137>

<https://towardsdatascience.com/building-a-logistic-regression-in-python-301d27367c24>

<https://towardsdatascience.com/logistic-regression-from-scratch-with-numpy-da4cc3121ece>

Creating Features sources:

<https://medium.com/@adriensieg/text-similarities-da019229c894>

<https://towardsdatascience.com/calculating-document-similarities-using-bert-and-other-models-b2c1a29c9630>

<https://towardsdatascience.com/learning-to-rank-with-python-scikit-learn-327a5cfd81f>

gradient descent:

<https://medium.com/analytics-vidhya/derivative-of-log-loss-function-for-logistic-regression-9b832f025c2d>

<https://medium.com/@edwinvarghese4442/logistic-regression-with-gradient-descent-tutorial-part-1-theory-529c93866001> -> 이게 찐

3. LambdaMart sources: <https://www.jianshu.com/p/9caef967ec0a>

<https://xgboost.readthedocs.io/en/latest/tutorials/input_format.html>