Machine Learning Based Sentiment Analysis

(Workshop Bengkel Koding)

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Machine Learning Based Sentiment Analysis

Sentiment analysis is a machine learning tool that analyzes texts for polarity, from positive to negative.

01.

02.

the process of using text analytics

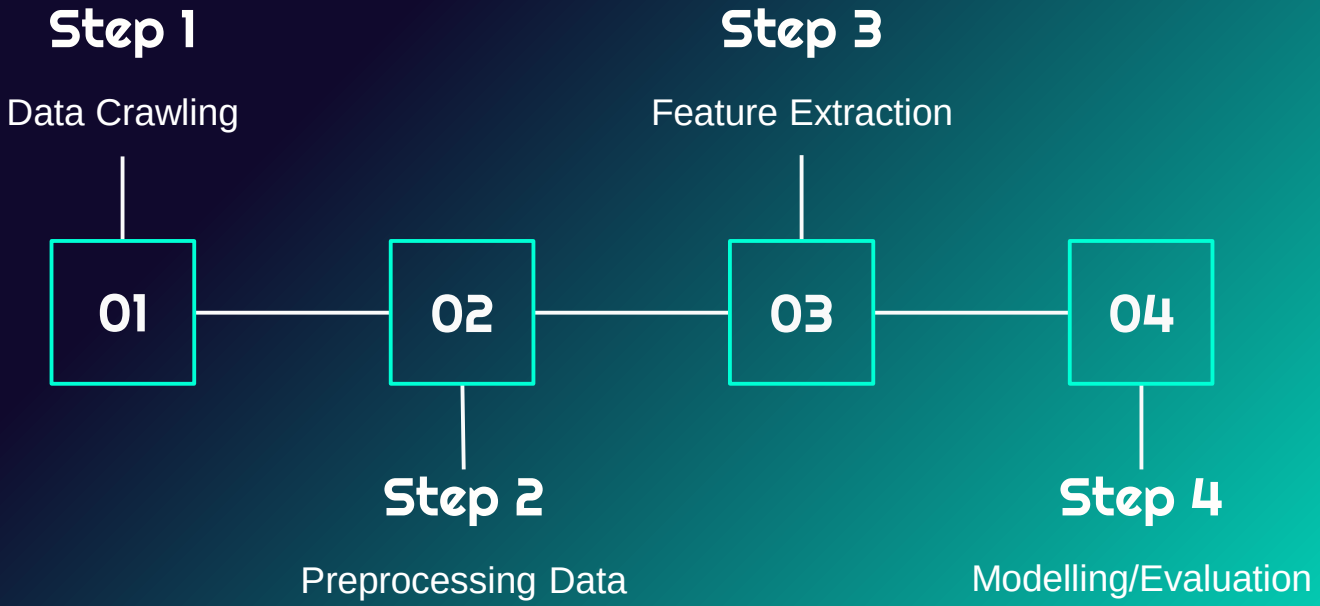
a field of Natural Language Processing (NLP)

03.

04.

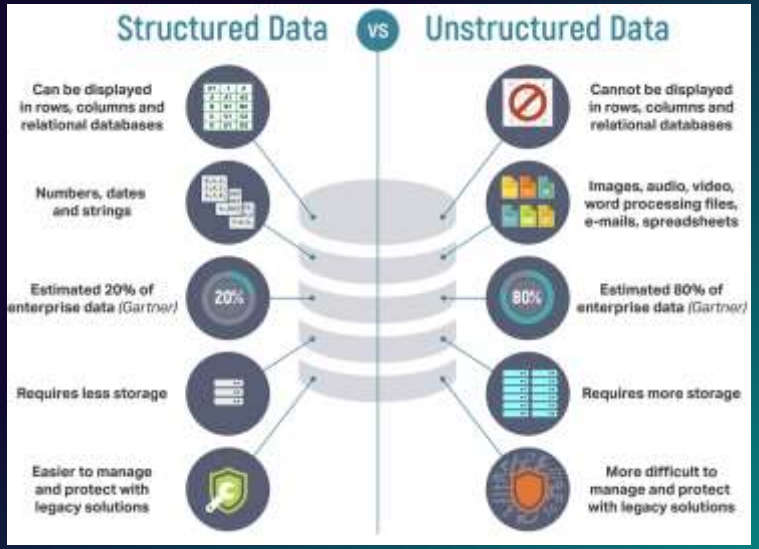
The goal is to get opinions from users who are on the platform.

Step Sentiment Analysis



Step 1: Data Crawling

- Data crawling adalah proses pengambilan data yang tersedia secara online untuk umum.
- Crawling menggunakan automation program dan menggunakan Application Programming Interface (API)



Step 2: Preprocessing

1. Case Folding
2. Tokenisasi
3. Normalization
4. Stopword Removal
5. Lemmalization

Step 3: Feature Extraction

Bag of Word

(TF, TFIDF)

Word Embedding

(Glove, Word2vec, FastText)

Character Embedding

Step 4: Modelling/Evaluation

Supervised Learning

Pendekatan machine learning yang menggunakan data-data yang sudah diberi ***label*** atau dataset-nya sudah diketahui oleh ***annotator***

Classification
Regression.

Unsupervised Learning

Pendekatan machine learning yang menggunakan algoritma untuk menganalisis dan menemukan pola dari suatu data ***tanpa*** bantuan maupun intervensi dari ***annotator***.

Clustering
Association
Dimensionality reduction

supervised learning menggunakan data input dan output berlabel, sedangkan unsupervised learning tidak

Step 4: Modelling/Evaluation

Supervised Learning

- Decision Trees
- KNN (K-Nearest Neighbor)
- Naïve Bayes
- SVM (Support Vactor Machines)
- Artificial Neural Network

Unsupervised Learning

- Non-Hierarchical Clustering
- Hierarchical Clustering
- DBSCAN
- Fuzzy C-Means

THANKS

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