



DAILY WORK  
REPORT  
TR-02

INFOWIZ  
2 JULY 2024

## Day 23: Introduction to Natural Language Processing (NLP)

**Summary:** Today, we explored Natural Language Processing (NLP), which is how computers understand and work with human language.

### Key Learnings:

1. **What is NLP?**
  - NLP helps computers understand and process human language, like chat messages or articles.
  - It's used in chatbots, translation apps, and analyzing text sentiment.
2. **Text Preprocessing:**
  - **Tokenization:** Breaking text into words or phrases.
  - **Stopwords:** Common words (like "and" or "the") that are often removed because they don't add much meaning.
  - **Stemming:** Reducing words to their base form (like "running" to "run").
3. **Bag-of-Words Model:**
  - Represents text as a list of word counts.
  - Helps computers analyze and classify text.
4. **Text Classification:**
  - Sorting text into categories, like positive or negative sentiment.
  - Using simple algorithms to make predictions based on text content.

### Project Application:

- We discussed using NLP for our WhatsApp chat analyzer project:
  - Analyzing chat sentiment to understand how people feel in conversations.
  - Sorting messages into categories like questions, greetings, or feedback.

Today's session gave us a good start in NLP basics. Tomorrow, we'll explore more about how to analyze sequences of text, which will help us dive deeper into understanding conversations in our project.