UGC Paper 1st Free Cl...
only admins can send messages

+91 81453 66384 joined using this group's invite link

+91 70102 37343 joined using this group's invite link

+91 96672 47765 joined using this group's invite link

+91 98557 99207 joined using this group's invite link

+91 60035 13791 joined using this group's invite link

+91 83590 38670 joined using this group's invite link

+91 91497 27505 joined using this group's invite link

+91 70910 66218 joined using this group's invite link

+91 75779 16791 joined using this group's invite link

+91 60035 13791 left

+91 90012 26665 joined using this group's invite link

+91 80037 25657 joined using this group's invite link

+91 89555 46730 joined using this group's invite link

Type a message

UGC Paper 1st Free Cl...
120 subscribers

December 28

Channel created

Channel photo changed

Broadcast

government_job_2020

1,711 Posts

6,845 Followers

7 Followi

Govt job 2020 (Fillerform) 17K

Education Website

Free Online Computer Class

1. Baisc computer

2. Web development

3. Hackig ... more

youtu.be/mIfPC5C-EvQ

Jaipur, Rajasthan

Edit Profile

Promotions | Insights | Contact

New

1 5 K Sub

YouTube

2000 users

UGC NET 100% Off Free Class

Free Notes

Live Class

5000+MCQ+PYQ

Free Books

fillerform

HOME WORK

2.	An expert system shell is an expert system without
a.	domain knowledge
b.	explanation facility
c.	reasoning with knowledge
d.	all of the above

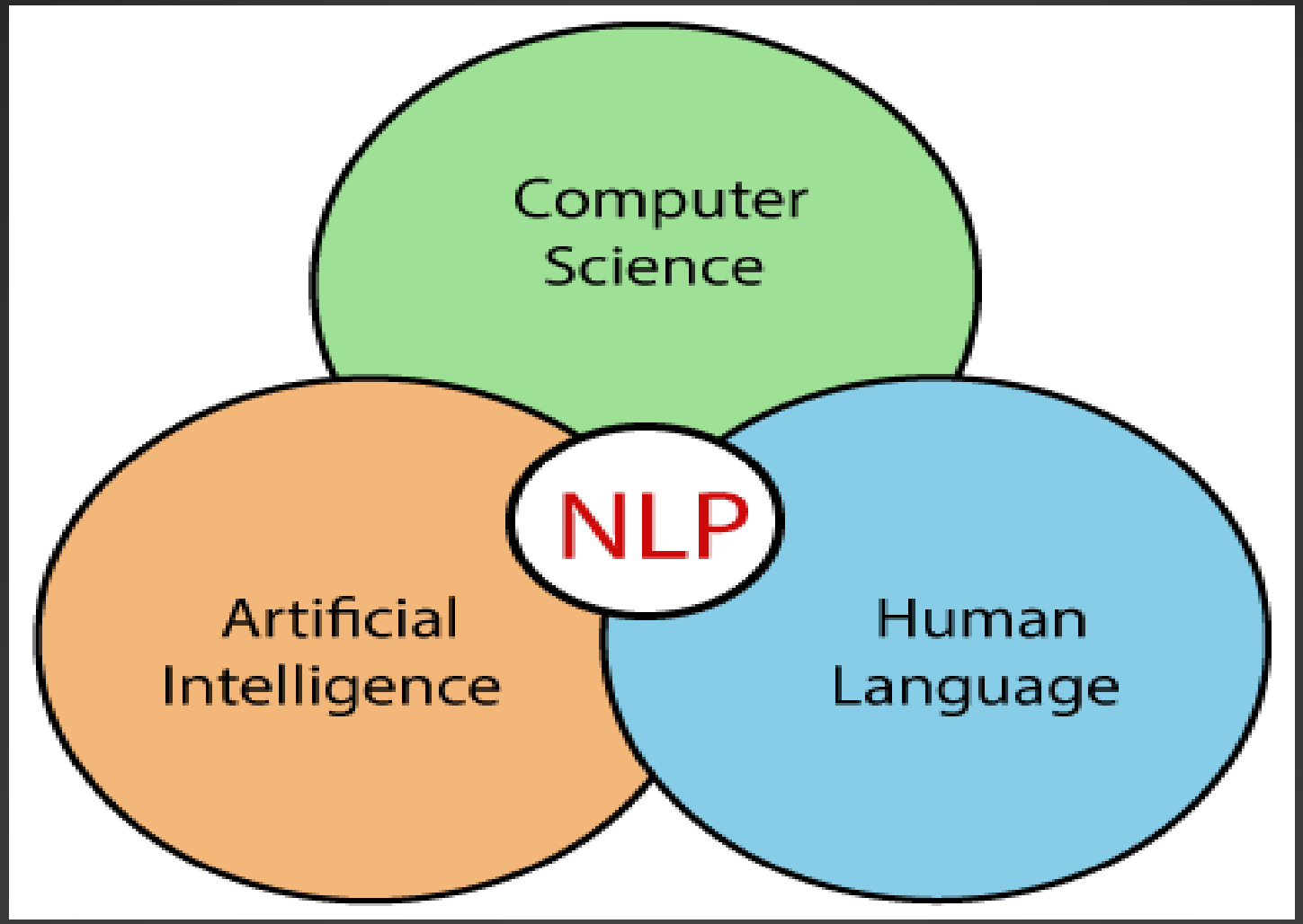
❑ Approaches to AI

Content:

1. Introduction
2. Components of NLP
3. NLP Technology
4. Steps in NLP
5. Context - free grammar
6. Top - down parser

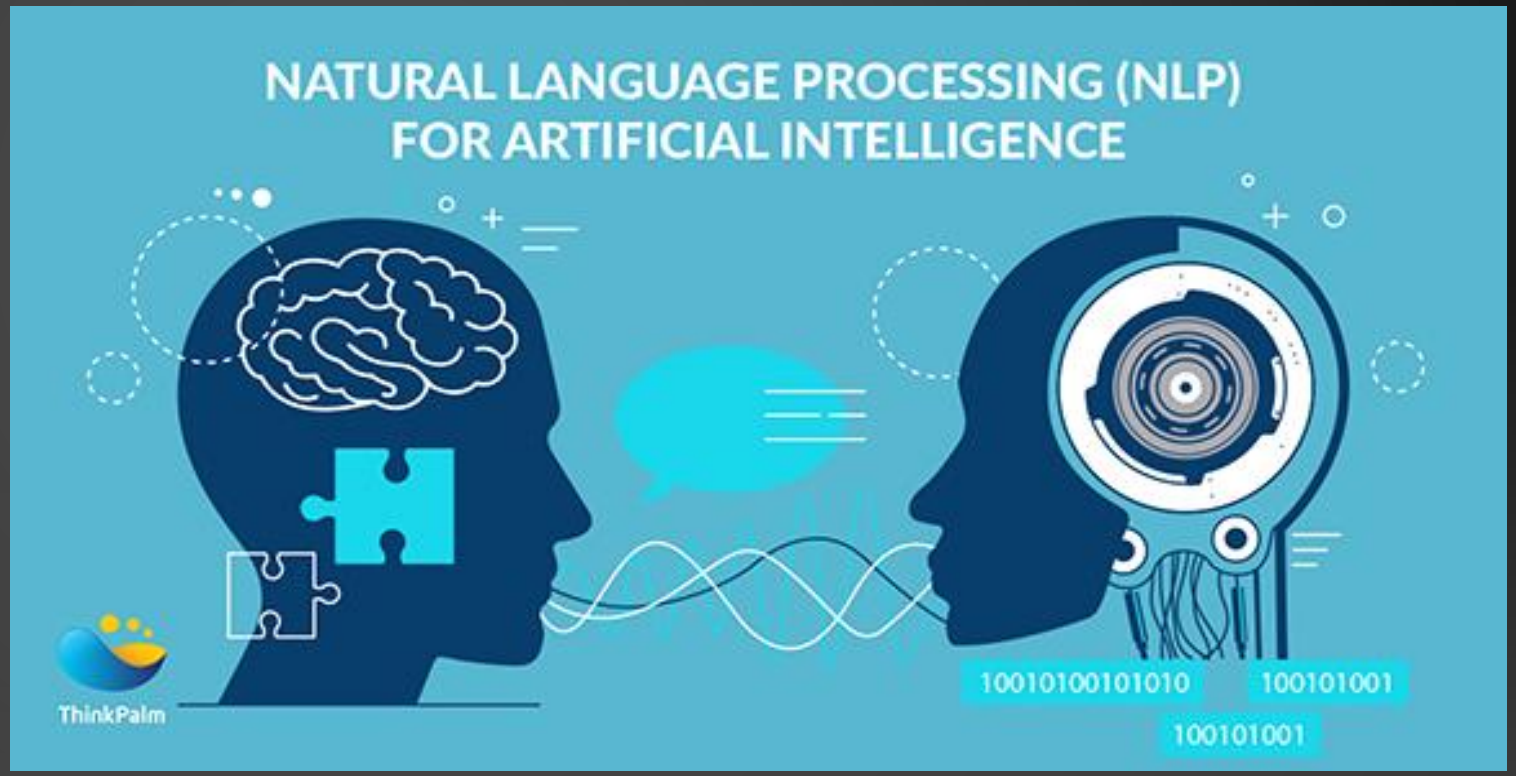
NATURAL LANGUAGE PROCESSING (NLP)

- NLP stands for **Natural Language Processing**, which is a part of **Computer Science, Human language,** and **Artificial Intelligence**.
- Processing of Natural Language is required when you want an intelligent system like robot to perform as per your instructions, when you want to hear decision from a dialogue based clinical expert system, etc.



- The field of NLP involves making computers to perform useful tasks with the natural languages humans use. The input and output of an NLP system can be –

  - Speech
  - Written Text



Components of NLP

There are two components of NLP as given –

1. Natural Language Understanding (NLU)

- Natural Language Understanding (NLU) helps the machine to understand and analyse human language by extracting the metadata from content such as concepts, entities, keywords, emotion, relations, and semantic roles.

- NLU mainly used in Business applications to understand the customer's problem in both spoken and written language.

2.Natural Language Generation (NLG)

Natural Language Generation (NLG) acts as a translator that converts the computerized data into natural language representation.

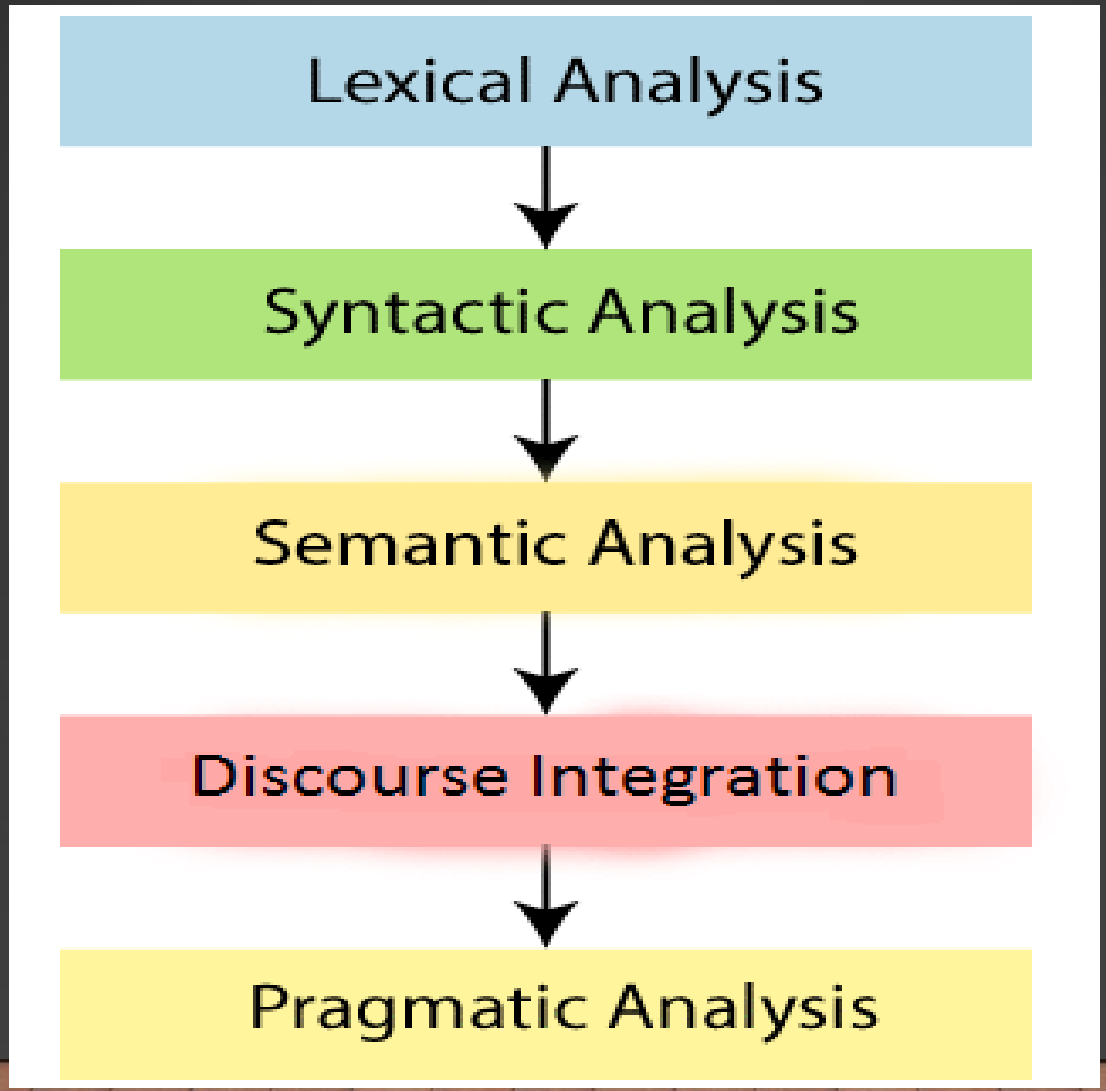
It involves –

- **Text planning** – It includes retrieving the relevant content from knowledge base.
- **Sentence planning** – It includes choosing required words, forming meaningful phrases, setting tone of the sentence.
- **Text Realization** – It is mapping sentence plan into sentence structure. The NLU is harder than NLG.

NLP Terminology

- **Phonology** − It is study of organizing sound systematically.
- **Morphology** − It is a study of construction of words from primitive meaningful units.
- **Morpheme** − It is primitive unit of meaning in a language.
- **Syntax** − It refers to arranging words to make a sentence. It also involves determining the structural role of words in the sentence and in phrases.
- **Semantics** − It is concerned with the meaning of words and how to combine words into meaningful phrases and sentences.
- **Pragmatics** − It deals with using and understanding sentences in different situations and how the interpretation of the sentence is affected.
- **Discourse** − It deals with how the immediately preceding sentence can affect the interpretation of the next sentence.
- **World Knowledge** − It includes the general knowledge about the world.

STEPS IN NLP



- **Lexical Analysis** - The first phase of NLP is the Lexical Analysis. This phase scans the source code as a stream of characters and converts it into meaningful lexemes. It divides the whole text into paragraphs, sentences, and words.

- **Syntactic Analysis (Parsing)** – It involves analysis of words in the sentence for grammar and arranging words in a manner that shows the relationship among the words. The sentence such as "The school goes to boy" is rejected by English syntactic analyzer.

- **Semantic Analysis** – Semantic analysis is concerned with the meaning representation. It mainly focuses on the literal meaning of words, phrases, and sentences.
- **Discourse Integration** – The meaning of any sentence depends upon the meaning of the sentence just before it. In addition, it also brings about the meaning of immediately succeeding sentence.
- **Pragmatic Analysis** – During this, what was said is re-interpreted on what it actually meant. It involves deriving those aspects of language which require real world knowledge.

Difference between Natural language and Computer Language

Natural Language	Computer Language
Natural language has a very large vocabulary.	Computer language has a very limited vocabulary.
Natural language is easily understood by humans.	Computer language is easily understood by the machines.
Natural language is ambiguous in nature.	Computer language is unambiguous.

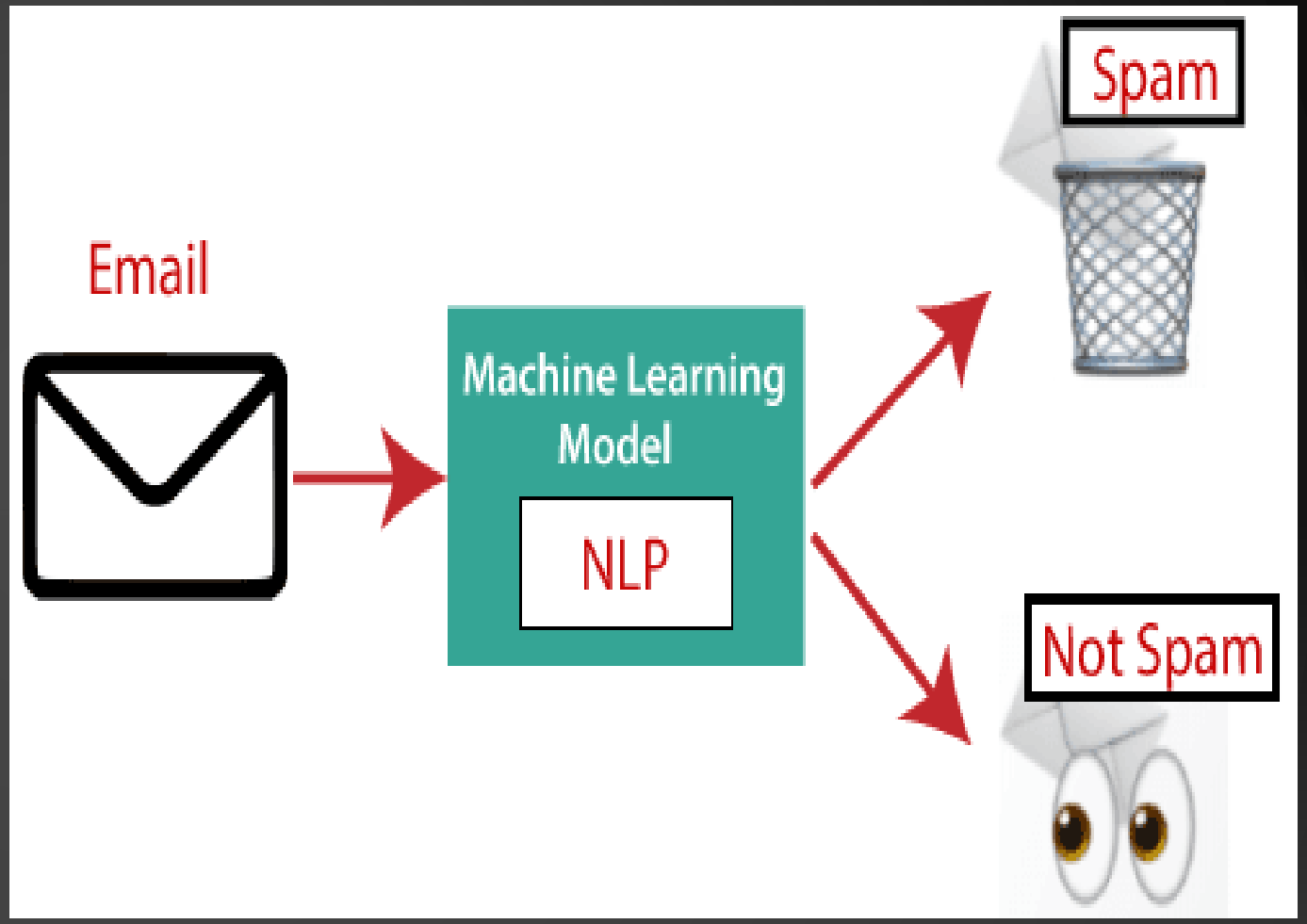
APPLICATIONS OF NLP

1. Question Answering

Question Answering focuses on building systems that automatically answer the questions asked by humans in a natural language.

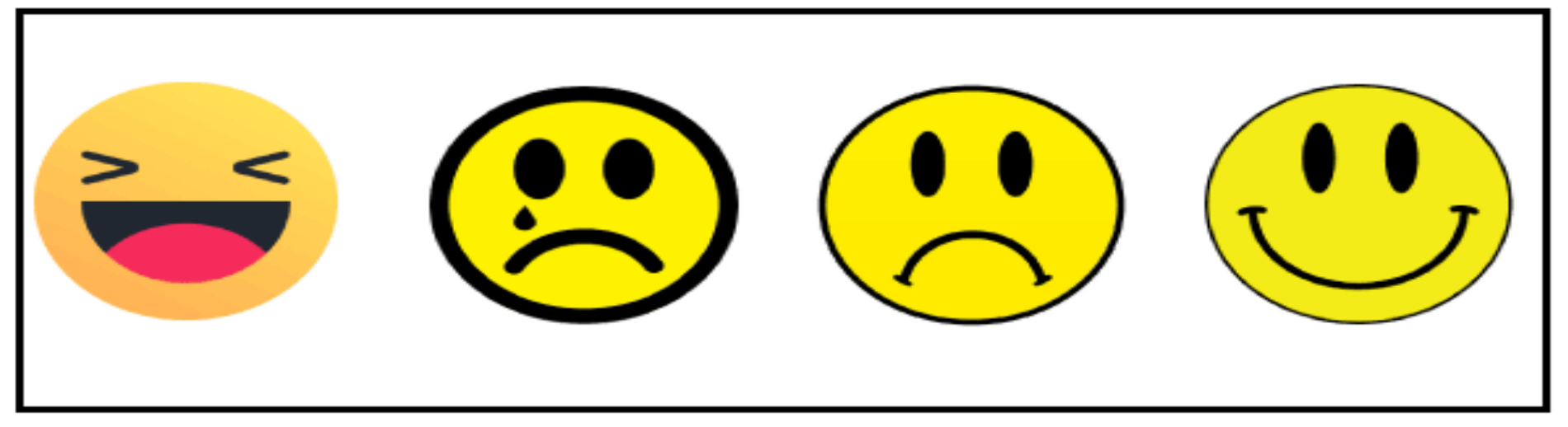
2. Spam Detection

Spam detection is used to detect unwanted e-mails getting to a user's inbox.



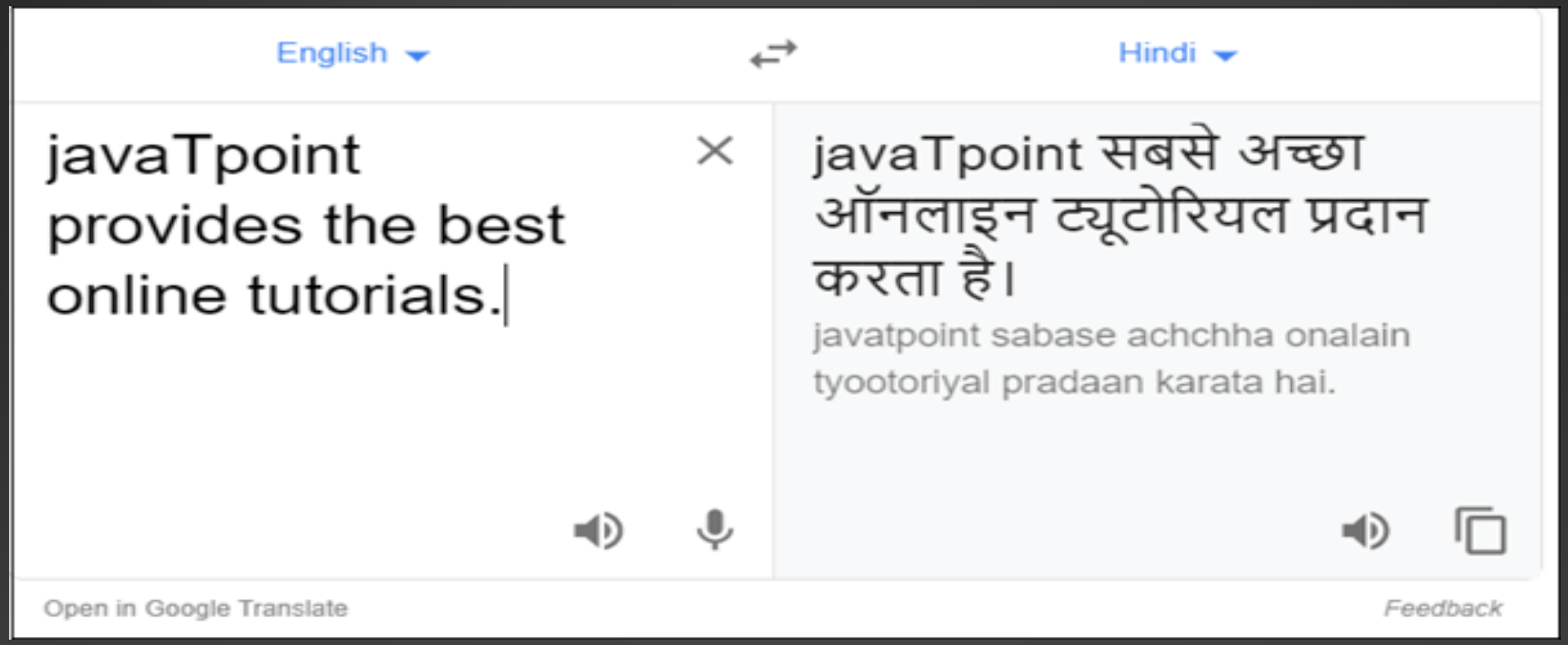
3. Sentiment Analysis

Sentiment Analysis is also known as **opinion mining**. It is used on the web to analyse the attitude, behaviour, and emotional state of the sender. This application is implemented through a combination of NLP (Natural Language Processing) and statistics by assigning the values to the text (positive, negative, or natural), identify the mood of the context (happy, sad, angry, etc.)



4. Machine Translation

Machine translation is used to translate text or speech from one natural language to another natural language.



Example: Google Translator

5. Spelling correction

- Microsoft Corporation provides word processor software like MS-word, PowerPoint for the spelling correction.

7. Chat bot

Implementing the Chat bot is one of the important applications of NLP. It is used by many companies to provide the customer's chat services.

HOME WORK

6.	High level knowledge which relates to the use of sentences in different contexts and how the context affect the meaning of the sentences?
a.	Morphological
b.	Syntactic
c.	Semantic
d.	Pragmatic


FEEDBACK

For More Information

www.ugc-net.com

 /Fillerform  /Fillerform /Fillerform

 info@fillerform.com

 8209837844