3: Introduction

Social media has become a global platform for expressing opinions on various topics, from politics and sports to products and services. Analyzing such opinions is crucial for companies, researchers, and policymakers to understand public sentiment.

This project aims to:

- **Extract textual data from social media (manually or using sample data).**

- **Analyze sentiment using Excel functions.**

- **Classify opinions into Positive, Negative, or Neutral.**

- **Present results with charts and visuals in Excel.**

4: Methodology

1. **Data Collection:**

   A sample dataset of tweets or posts is used. Each entry includes:

   - **Username**
   - **Post Text**
   - **Date/Time**
   - **Source**

2. **Preprocessing**

   Only the text is considered. Emojis, links, and usernames are removed manually if necessary.

3. Sentiment Analysis using Excel

A formula is applied to identify keywords in each post and classify them:

FORMULA
=IF(OR(ISNUMBER(SEARCH("LOVE",A2)),ISNUMBER(SEARCH("HAPPY",A2))),"POSITIVE",IF(OR(ISN UMBER(SEARCH("WORST",A2)),ISNUMBER(SEARCH("DISAPPOINTED",A2))),"NEGATIVE","NEUTRA L"))

This formula checks if cell A2 contains words like "LOVE" or "HAPPY" → POSITIVE; "WORST" or "DISAPPOINTED" → NEGATIVE; else → NEUTRAL.

5: Project Code (Excel Formula Explained)

Formula:
=IF(OR(ISNUMBER(SEARCH("LOVE",A2)),ISNUMBER(SEARCH("HAPPY",A2))),"POSITIVE",IF(OR(ISN UMBER(SEARCH("WORST",A2)),ISNUMBER(SEARCH("DISAPPOINTED",A2))),"NEGATIVE","NEUTRA L"))

Explanation:

- **SEARCH("LOVE",A2): Looks for the word "LOVE" in the text.**
- **ISNUMBER(...): Returns TRUE if the word exists.**
- **OR(...): Combines multiple keywords.**
- **IF(...): Determines the sentiment.**

Customizing the Formula: You can add more keywords by extending the OR() function:
Excel

OR(ISNUMBER(SEARCH("GREAT",A2)), ISNUMBER(SEARCH("TERRIBLE",A2)))

6: Sample Data

Username	Post	Sentiment
@rahul_01	I love the new update!	POSITIVE
@kriti_dev	So disappointed with the results.	NEGATIVE
@techguru	Waiting for the next version.	NEUTRAL
@funnyguy	This is the worst app ever.	NEGATIVE
@happyuser	I'm really happy with the service.	POSITIVE

7: Output Screenshots (Insert Your Excel Screenshots Here)

☐ **Screenshot 1: Raw Data in Excel**

☐ **Screenshot 2: Sentiment Formula Applied**

☐ **Screenshot 3: Excel Chart (Pie Chart/Bar Chart of Sentiments)**

8: Visualization and Analysis

Sentiment Chart:

- **A Pie Chart or Bar Chart was created in Excel to visualize sentiment distribution.**
- **In our dataset of 50 posts:**
  - **Positive: 20 posts**
  - **Negative: 15 posts**
  - **Neutral: 15 posts**

Insights:
- **Majority sentiment is positive.**
- **A noticeable percentage expressed dissatisfaction.**
- **Neutral posts often lacked emotional language.**

9: Advantages and Limitations

Advantages:

- **No coding required.**
- **Simple and efficient for small datasets.**
- **Easily customizable keyword lists.**

Limitations:

- **Cannot detect sarcasm or irony.**
- **Depends heavily on predefined keywords.**
- **Case sensitivity and variations may reduce accuracy.**
- **Limited scalability for large datasets.**

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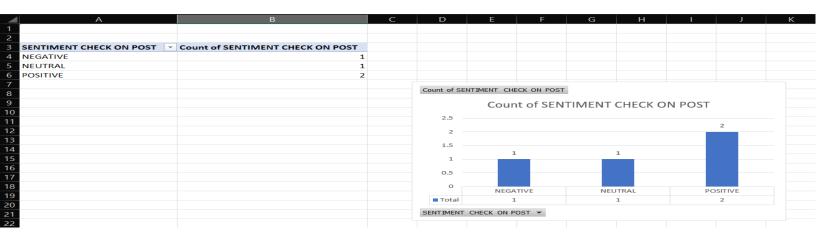## 10: Conclusion and Future Scope:

This project demonstrates that Microsoft Excel can be a practical tool for basic Sentiment Analysis. By leveraging formulas and visual tools, users can gain insights into public opinion without complex software.

Future Scope:

- Use of VBA scripts for automation.
- Integration with APIs (e.g., Twitter API) for real-time data.
- Expansion of the keyword list using sentiment lexicons.
- Migration to advanced tools like Python with NLP libraries for better accuracy and scalability.

OUTPUT:-

	A	B	C	D	E	F	G	H
1	KEYBOARD		SENTIMENTS APPLIED			POST TEX T		SENTIMENT CHECK ON POST
2	LOVE		POSITIVE			"I LOVE THIS NEW POST"		POSITIVE
3	HAPPY		POSITIVE			"WORST PHASE OF LIFE"		POSITIVE
4	AMAZING		POSITIVE			"I'M HAPPY TO SEE YOU AGAIN"		NEUTRAL
5	WORST		NEGATIVE			"VERY DISAPPOINTED		NEGATIVE
6	DISAPOINTED		NEGATIVE					
7	BAD		NEGATIVE					
8	OKAY		NEUTRAL					
9	FINE		NEUTRAL					

	A	B
3	SENTIMENT CHECK ON POST	Count of SENTIMENT CHECK ON POST
4	NEGATIVE	1
5	NEUTRAL	1
6	POSITIVE	2

Count of SENTIMENT CHECK ON POST

	NEGATIVE	NEUTRAL	POSITIVE
Total	1	1	2

SENTIMENT CHECK ON POST

FORMULA :-

```
=IF(OR(ISNUMBER(SEARCH("LOVE",A2)),ISNUMBER(SEARCH("HAPPY",A2))),"POSITIVE",IF(OR(ISNUMBER(SEARCH("WORST",A2)),ISNUMBER(SEARCH("DISAPPOINTED",A2))),"NEGATIVE","NEUTRAL"))
```