PEOPLE'S BEHAVIOUR ANALYSIS IN CHAT MESSAGE USING NATURAL LANGUAGE PROCESSING

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1.INTRODUCTION

Nowadays, the mode of communication is mainly through messages. A lot of information has been conveyed through WhatsApp. WhatsApp is the most popular chat application with active users of more than 650 million. It has been widely used by all, especially among the business people and youngsters. Using several analyzing tools, users can analyze the WhatsApp group chat or personal chat. Authentically users wish to analyze their chat for several purposes. This research work is intended to perform a flirt analysis and time analysis. This project has many use cases like the parent, who wants to analyze their child chat; the police, who want to get valuable information from culprit chat; the business people, who wants to know the status of the business in the group chat. Using the Deep Learning model (NLP), sentimental analysis has been performed for each text. This helps to find the state of mind of the chatters. Further, this research work calculates the number of positive and negative statements that are used by each person in the text by using the text mining concept. As now due to this pandemic situation, every conversation and also the important discussion has been done through the WhatsApp and it was highly needed for the person who wants to check their child's conversation and also for the higher authority for enquiry and for the business chair person who are needed to analyze their business well being group can also be used for their personal usage of analyze using the algorithm in this method.



MODULES

ADMIN

- Login
- View User
- View Posts
- View Feedback
- View Analysis Report

USER

- Registration
- Login
- View Profile/Update
- View Friends
- Sent Friend Request
- Accept/View Friend Request
- Chat With Friends
- Post/Comment
- Sent Feedback
- View Analysis Report

DEVELOPING ENVIRONMENT

ENVIRONMENTAL DETAILS

- Operating System : Windows 7 or above, Android ,64 bit platform
- Front End : Android, HTML,CSS Back End : MySQL Sever ,python
- IDE: PyCharm, Eclipse/Android Studio

NATURAL LANGUAGE PROCESSING

NLP

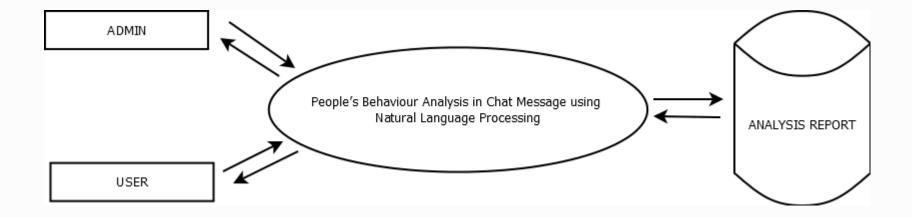
Natural language processing (**NLP**) is a subfield of computer science and artificial intelligence concerned with the interactions between computers and human language, in particular how to program computers to process and analyze large amounts of <u>natural language</u> data. The goal is a computer capable of "understanding" the contents of documents, including the contextual nuances of the language within them. The technology can then accurately extract information and insights contained in the documents as well as categorize and organize the documents themselves.

SENTIMENTAL ANALYSIS

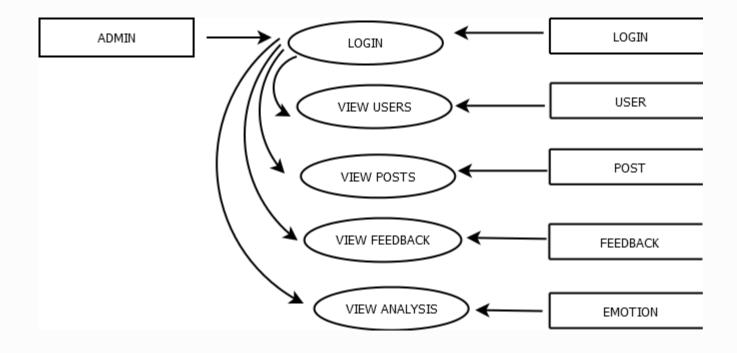
Sentiment analysis (or opinion mining) is a natural language processing (NLP) technique used to **determine whether data is positive, negative or neutral**.

DATA FLOW DIAGRAM

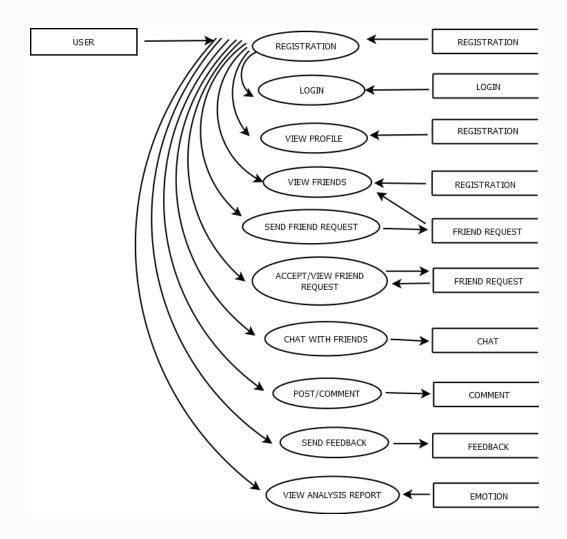
Level 0



Level 1.1



Level 1.2



PROJECT PLAN

User Story ID	Task Name	Start Date	End Date	Days	status
1	Sprint 1	20-04-2022	01-05-2022	18	Completed
2		04-05-2022	12-05-2022	10	Completed
3	Sprint 2	15-05-2022	25-05-2022	11	Complete
4	·	26-05-2022	29-05-2022	11	Complete
5	Sprint 3	30-05-2022	02-06-2022	5	Complete
6	эргий э	03-06-2022	05-06-2022	5	Complete
7		06-06-2022	20-06-2022		Completed
8	Sprint 4		25-06-2022	18	Completed

USER STORY

USER STORY ID	AS A TYPE OF USER	I WANT TO PERFORM SOME TASK	SO THAT I CAN ACHIEVE SOME GOAL
1	Admin, User	Login	Login Successful With Correct Username And Password
2	Admin	View Users	Admin Can View The Users, Who Registered In Our App
3	Admin	View Posts	admin Can View Different Posts Of Users
4	Admin	View Feedback	Admin Can View The Feedback That Uploaded By The Users
5	Admin	View Analysis Report	Admin Can View The Peoples Behavior Analysis Report
6	User	Registration	Signup
7	User	View Profile/Update	After Login Users Can Update Their Profile If Any Changes Comes

USER STORY ID	AS A TYPE OF USER	I WANT TO PERFORM SOME TASK	SO THAT I CAN ACHIEVE SOME GOAL						
8	User	View Friends	Users Can View Their Friends						
9	User	Send Friend Request	Users Can Send Friend Request To Another Users Who Registered In The App						
10	User	Accept Or View Friend Request	Users Can View Friend Request They Can Either Accept Or Reject The Request						
11	User	Chat With Friends	If Friends Accept Our Request Then We Can Chat With Them						
12	User	Post Or Comment	User Can Upload Their Posts ,His Friends Can Comment To Their Posts.						
13	User	Send Feedback	Users Can Send Feedback And Admin Can View The Users Feedback						
14	User	View Analysis Report	Behaviour Analysis Can Viewed By Admin And Users						

PRODUCT BACKLOG

User Story ID	Priority <high lo<br="" medium="">w></high>	Size (Hour s)	Sprint <#>	Status <planned in<br="">progress/complet ed</planned>	Released Date	Released Goal		
1	Medium	8	1	Completed	01/05/2022	Table design		
2	High	10		Completed	12/05/2022	Form design		
4	Medium	6	2	Completed	25/05/2022	Basic coding		
5	High	5		Completed	29/05/2022	Tokenization		
6	Medium	3	3	Completed	02/06/2022	Connecting word elimination		
7	High	2		Completed	05/06/2022	Steaming and sentimental analysis		
9	High	11	4	Complete	15-06-2022	Comparison		
10	Medium	5		Complete	20-06-2022	Testing data		
11	Medium	8		Complete	25-06-2022	Output generation		

SPRINT PLAN

Backlog Item	Status & Complet ion date	Original Estimat e in hours	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10	Day 11	Day 12	Day 13	Day 14
User Story#1,#2,#3		Hours	Hours	hours	hours	Hour s	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours
Table design	01/05/2022	8	1	1	1	2	0	1	1	0	1	0	0	0	0	0
Form design	12/05/2022	8	1	1	0	1	2	0	1	1	0	0	1	0	0	0
Coding	25/05/2022	6	1	0	0	0	0	0	0	0	1	1	1	1	1	0
User Story #4,#5																
Analysing	29/05/2022	5	1	1	1	0	0	1	0	0	0	1	0	0	0	0
User Story #8,9																
Steaming	02/06/2022	3	1	1	1	0	0	0	0	0	0	0	0	0	0	0
Sentimental analysis	05/06/2022	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0

Backlog Item	Status & Complet ion date	Original Estimat e in hours	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10	Day 11	Day 12	Day 13	Day 14
User Story#10,#11		Hours	Hours	hours	hours	Hour s	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours
Comparison	15-06-2022	11	3	1	1	2	0	1	2	0	1	0	0	0	0	0
Testing data	20/06/2022	5	1	0	0	1	1	0	0	1	0	0	0	0	0	0
Output generation	25/06/2022	8	1	0	0	0	0	2	0	0	1	1	1	1	1	0

SPRINT ACTUAL

Backlog Item	Status & Complet ion date	Original Estimat e in hours	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10	Day 11	Day 12	Day 13	Day 14
User Story#1,#2,#3		Hours	Hours	hours	hours	Hour s	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours
Table design	01/05/2022	8	1	1	1	2	0	1	1	0	1	0	0	0	0	0
Form design	12/05/2022	8	1	1	0	1	2	0	1	1	0	0	1	0	0	0
Coding	25/05/2022	6	1	0	0	0	0	0	0	0	1	1	1	1	1	0
User Story #4,#5																
Analysing	29/05/2022	5	1	1	1	0	0	1	0	0	0	1	0	0	0	0
User Story #8,9																
User Story #7,8	02/06/2022	3	1	1	1	0	0	0	0	0	0	0	0	0	0	0
Testing and output	05/06/2022	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0

Backlog Item	Status & Complet ion date	Original Estimat e in hours	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10	Day 11	Day 12	Day 13	Day 14
User Story#10,#11		Hours	Hours	hours	hours	Hour s	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours
Comparison	15-06-2022	11	3	1	1	2	0	1	2	0	1	0	0	0	0	0
Testing data	20/06/2022	5	1	0	0	1	1	0	0	1	0	0	0	0	0	0
Output generation	25/06/2022	8	1	0	0	0	0	2	0	0	1	1	1	1	1	0

SCREENSHOT



