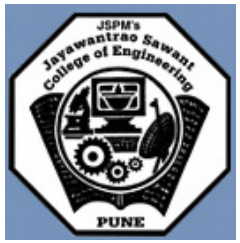
Sentimental Analysis On Audio And Video

Presented by:-
1]Ms.Monali Yadav
2]Ms.Shivani Raskar
3]Mr.Vishal Waman
Under The Guidance Of,
Prof.S.B.CHAUDHARI
Department Of Computer Engineering



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INTRODUCTION

- Introduction
- Definition
- Need

PROBLEM DEFINITION

Achieve Sentimental analysis over audio And Video reviews of Products on social media. Social sites like YouTube, Facebook, Twitter Contain a lot of unprocessed reviews that go unchecked for Sentimental Analysis.

OBJECTIVE

- Select a method for Video and Audio Extraction
- create an algorithm and module to merge audio and video data to create more Effective and accurate sentimental analysis.

PROJECT SCOPE

- sentimental analysis of data is require in many fields like
  product rating
  e-commerence
  government polls
  reality shares
- reviews published-both purchasers and producers
- proposed system used-e-commerence sites, retail price analytics,social sites

LITRACTURE SURVEY

SR.NO	PAPER NAME	FOCUS	METHODS	ADVANTAGES	DISADVANTAGES	FUTURE WORK
1	SENTIMENT ANALYSIS ON PRODUCT REVIEWS	The main focus of sentiment analysis on product reviews is to review different algorithm and techniques to extract feature wise summary of a product and analyze it to form an authentic review.	Naïve Bayes'	The system provides more successful sentimental classification based reviews.	Only suitable for text data.	The future work is to use data from websites such as EBay and twitter to aggregate their reviews and provide a larger number of numbers of reviews because in previous work, data are extracted from Amazon and Flipchart.
2	Sentimental Analysis on Speaker specific speech data	This work presents a generalized model that takes an audio which contains a conversation between two people as input and studies the content and speakers' identity by automatically converting the audio into text and by performing speaker recognition	1.Naïve Bayes 2.Linear SVM 3.VADER	--No loss of data while performing compression and decompression. --This system was useful for audio data.	It suffers some flaws, right now the system can handle a conversation between two speakers and in the conversation only one speaker should talk at a given time, it cannot understand if two people talk simultaneously	Our future work would address the issue like only one speaker should talk at a given time, it cannot understand if two people talk simultaneously and improve the accuracy and scalability of the system.

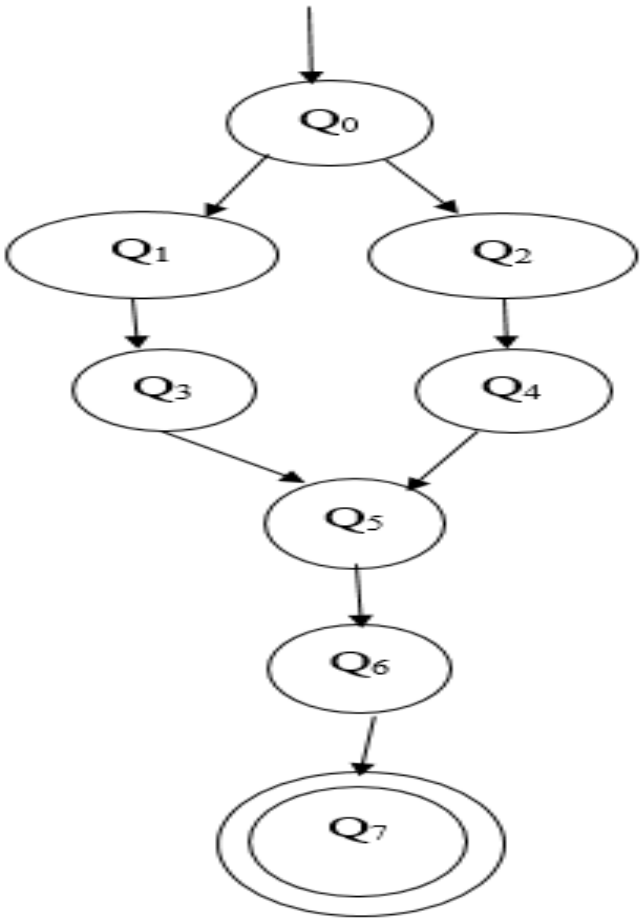
LITRACTURE SURVEY

3.	Comparative Analysis of Sentiment Orientation Using SVM and Naïve Bayes Techniques	The main focus of this paper was to analyze the data based on suitable algorithm provides the results in terms of analysis.	1.Naïve Bayes 2.Linear SVM	It is suitable for audios and text and provides better results.	It gives less accuracy to adventure based data as compared to other data.	The future scope of the work is that we can explore our data to a wider genre of different products on social networking sites or e-commerce as day by day the user is moving online and they prefer buying stuff online so we can identify the accuracy rates of the products like books, games etc.
4.	Onto-based sentiment classification using Machine Learning Techniques	The main focus in on text-based emotion prediction	1.Naïve Bayes 2.SVM 3.kNN	This project is simple and suitable for text data.	Classification and clustering of semi-structured text data have some challenges.	-
5.	Audio and Text based Multimodal Sentiment Analysis using Features Extracted from Selective Regions and Deep Neural Networks	While developing multimodal sentiment analysis, instead of taking entire input and extracting several features from toolkit, we identify selective regions of an input and experiment is performed on those regions by extracting specific features.	1.Naïve Bayes 2.SVM 3. Gaussian Mixture Models (GMM) 4. Deep Neural Networks (DNN) 5. Deep Neural Network Attention Mechanism (DNNAM)	--This project is simple. -- Suitable for small database.	In this paper the selective regions concept is not applied on deep neural network classifiers because of less data. The performance of deep neural networks is depend on the amount of training data.	In this work the main focused only on two modalities text and audio. The performance can be improved by combining these two modalities with video modality.

LITRACTURE SURVEY

6.	Large-scale Affective Content Analysis: Combining Media Content Features and Facial Reactions	The paper present a novel multimodal model for affective video content analysis using deep visual-sentiment descriptions and automated facial coding.	Support Vector Machine(SVM)	Suitable for both audio and videos.	It gives less accuracy.	-
7.	Comparative Study of Machine Learning Techniques in Sentimental Analysis	The paper presents a detail survey of various machine learning techniques and then compared with their accuracy, advantages and limitations of each technique.	1.Naïve Bayes 2.SVM 3.KNN	This paper includes outline of current works that done on sentimental classification and analysis.	-	A more innovative and effective techniques required to be invented which should overcome the current challenges like classification of indirect opinions, comparative sentences and sarcastic sentences.

MATHEMATICAL MODEL

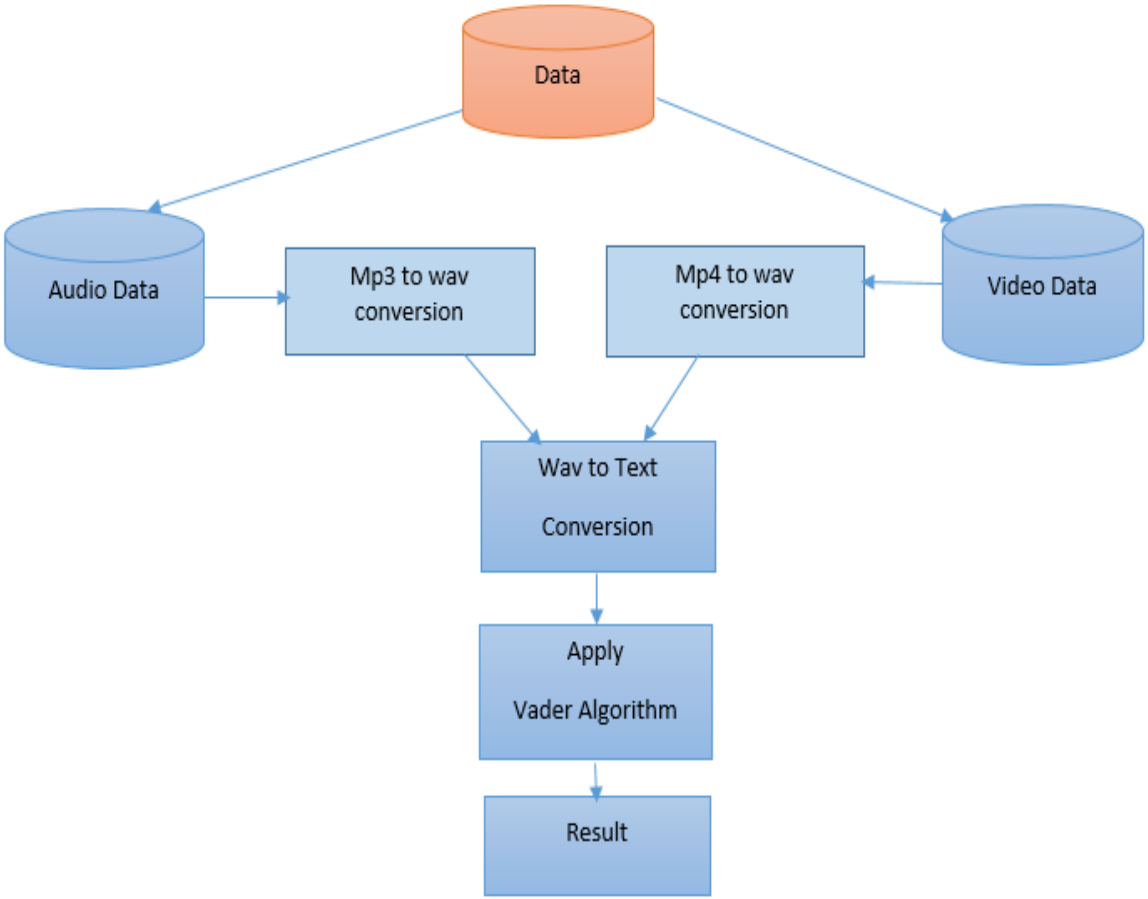


Q0 initial State
Q1 audio separation
Q2 video separation
Q3 mp3 to wav conversion
Q4 mp4 to wav conversion
Q5 wav to text conversion
Q6 Apply Algorithm
Q7 Result Display

Continue

U= Q, F,Q0, S, F
Where,
Q= Q1, Q2,Q3, Q4, Q5, Q6, Q7
F= nal State
Q0-Initial State
S: Success:
Data converted successfully
Accuracy obtained successfully
F: Failure:
If data is not converted successfully
Connection failure

ARCHITECTURAL MODULE



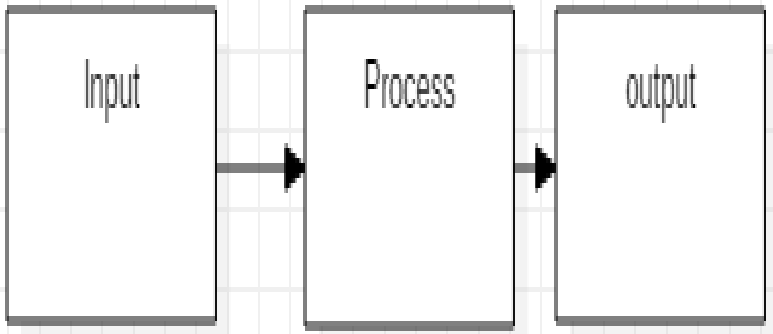
Algorithm:Vader

- VADER is referred to as Valence Aware Dictionary and sEntiment Reasoner.
- performance of sentiment classication very fast even if you don't have negative and positive text samples to train a classier
- consists of an inbuilt training library that means we can not train our model separately.

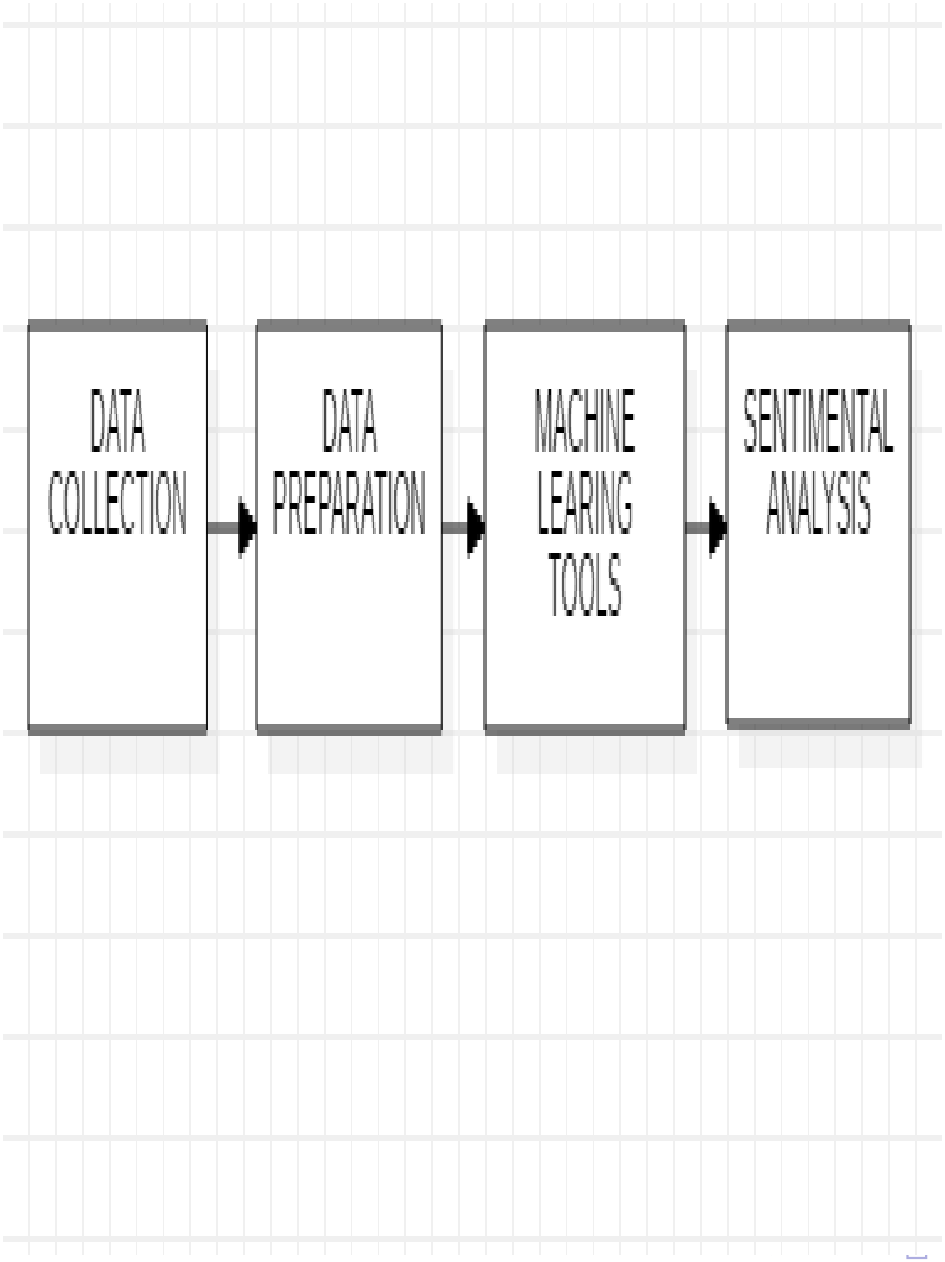
SYSTEM MODULES

- 1.Django:
- 2.File System:
- 3.Browser:

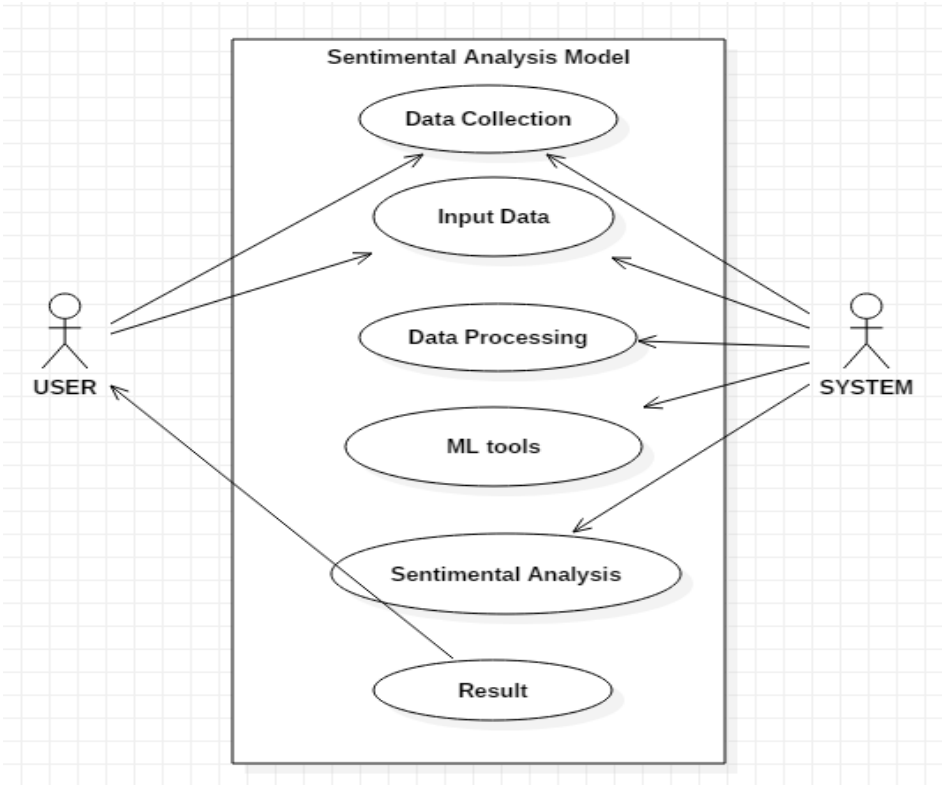
DFD



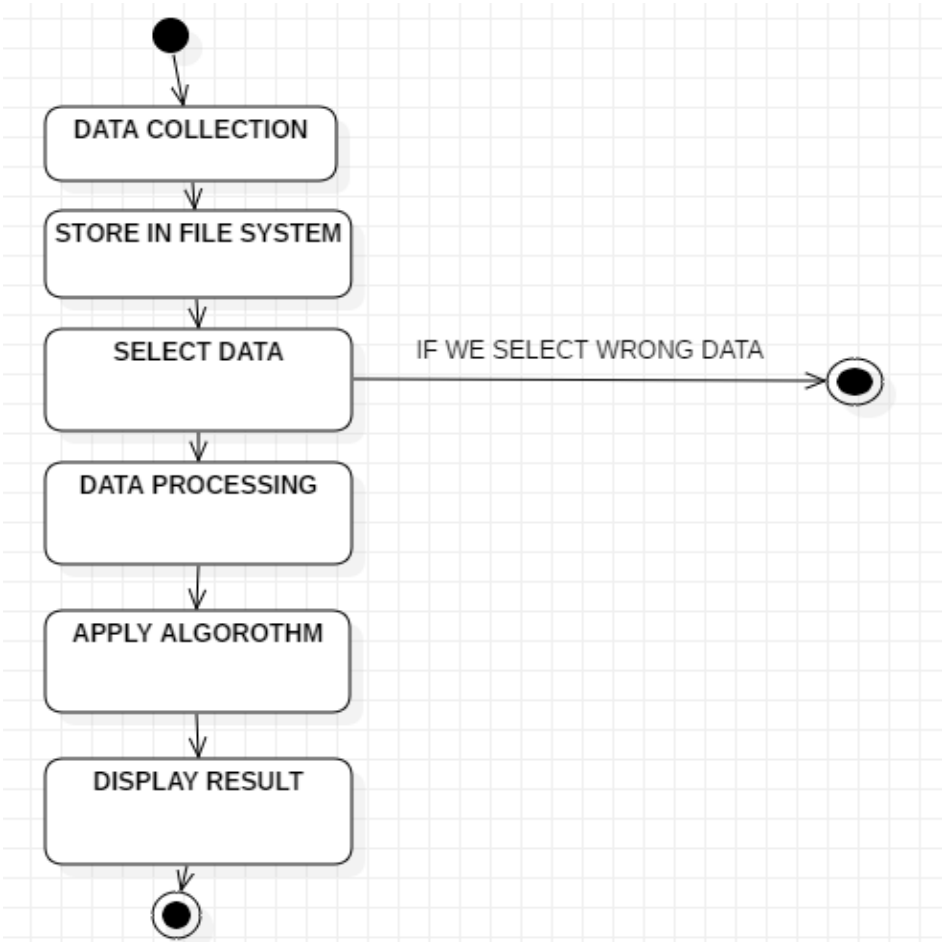
DFD


DATA COLLECTION
DATA PREPARATION
MACHINE LEARING TOOLS
SENTIMENTAL ANALYSIS

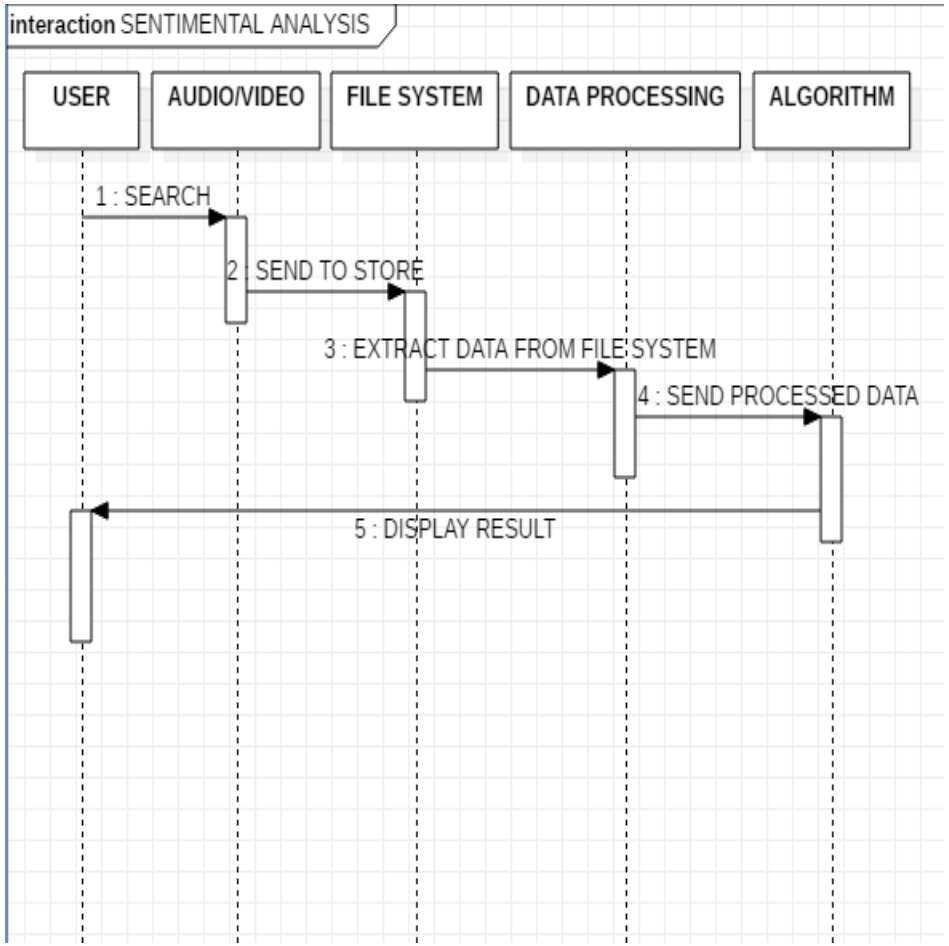
UML DIAGRAM-1.Use case diagram



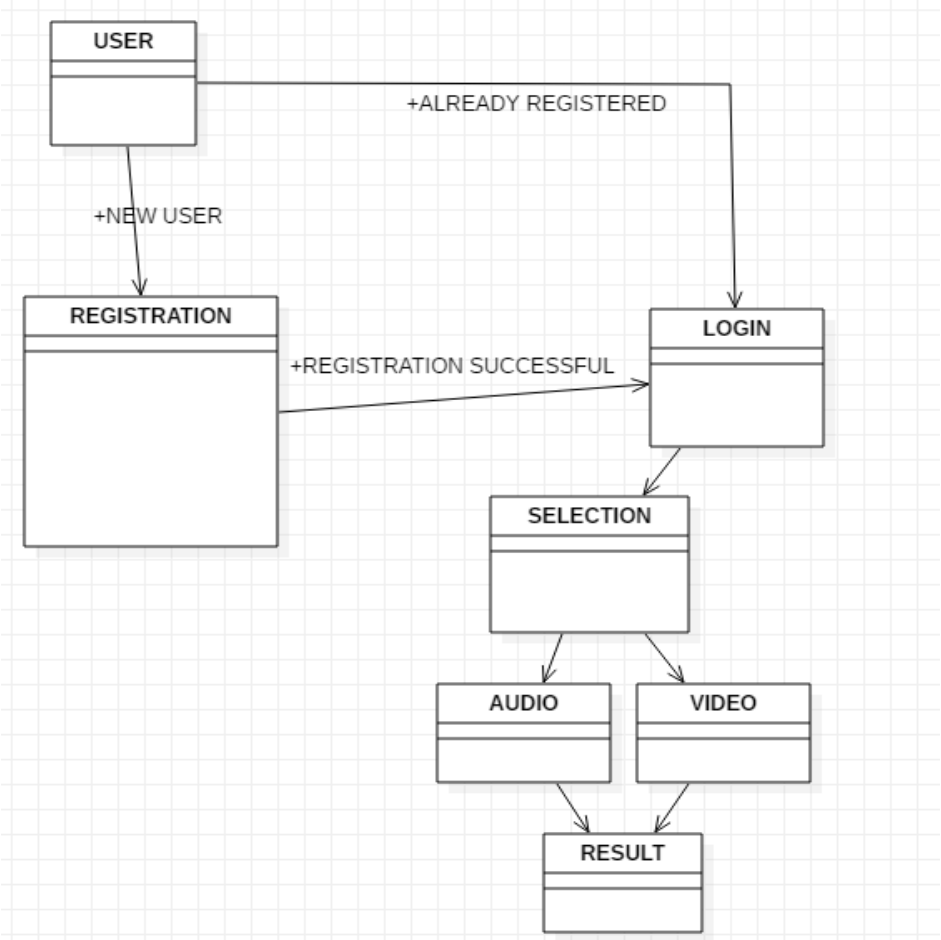
2.Activity diagram



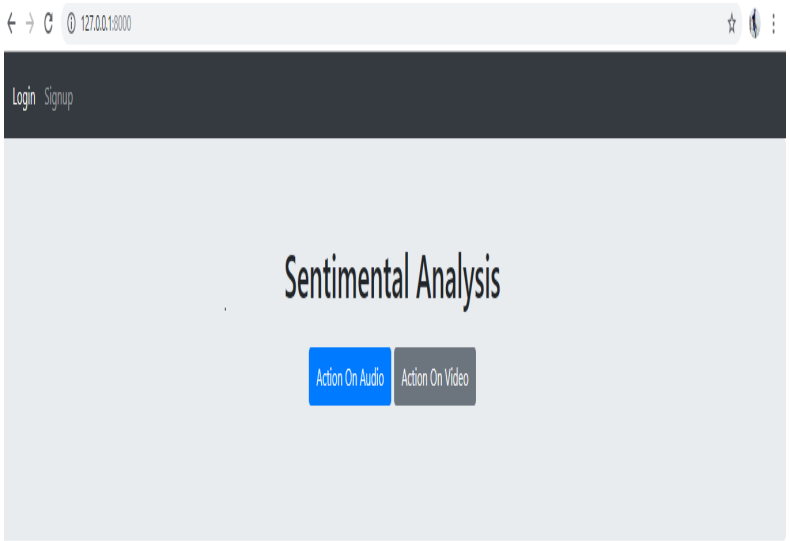
3.Sequence diagram

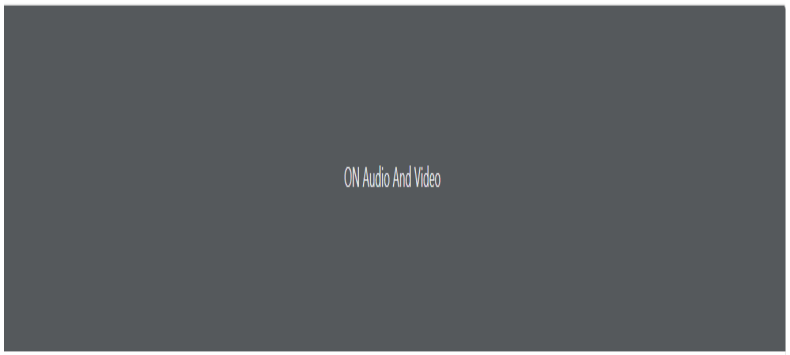


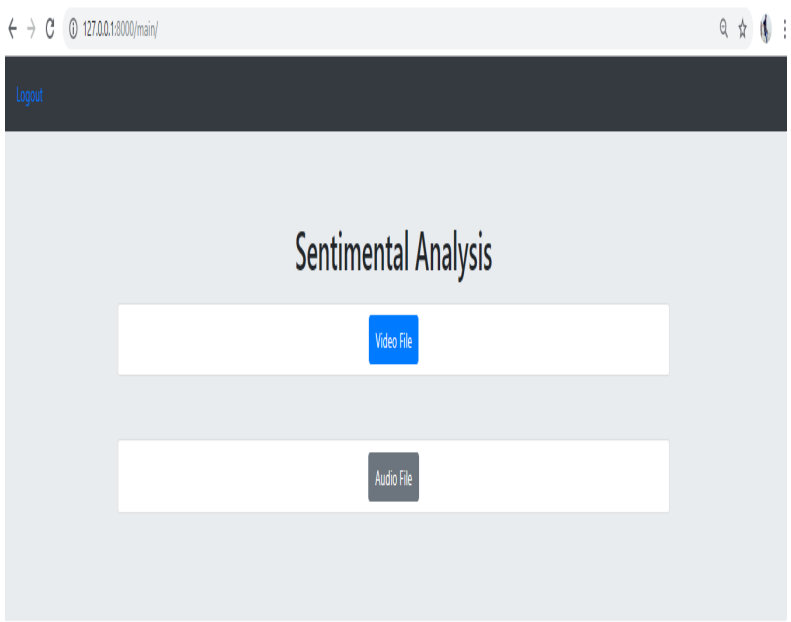
4.Class Diagram



OUTCOMES

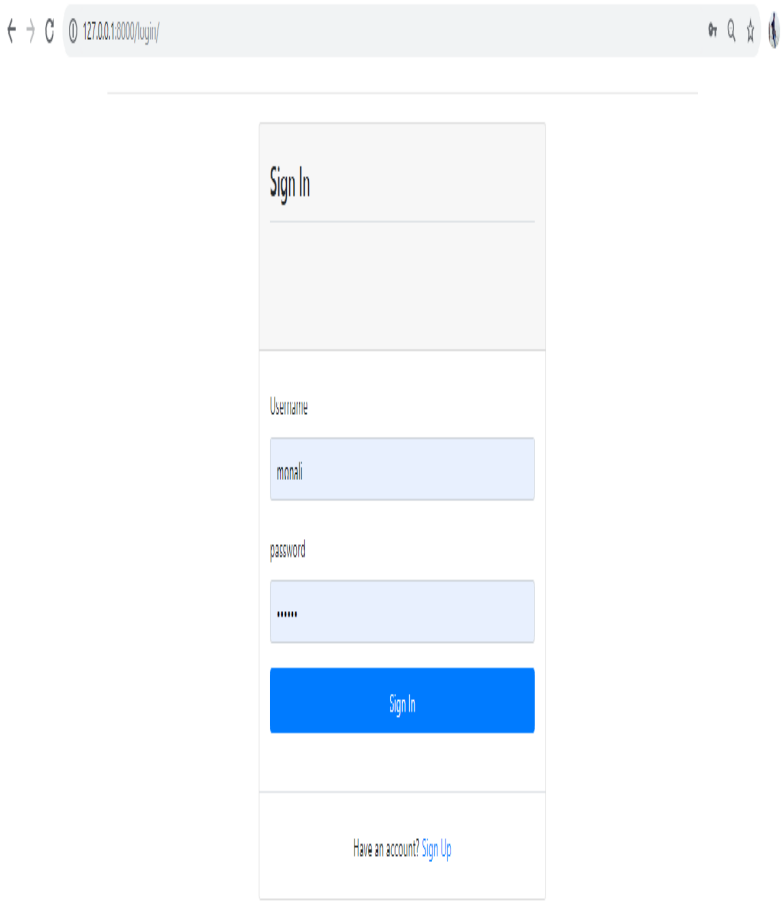

127.0.0.1:8000
Login
Signup
Sentimental Analysis
Action On Audio
Action On Video

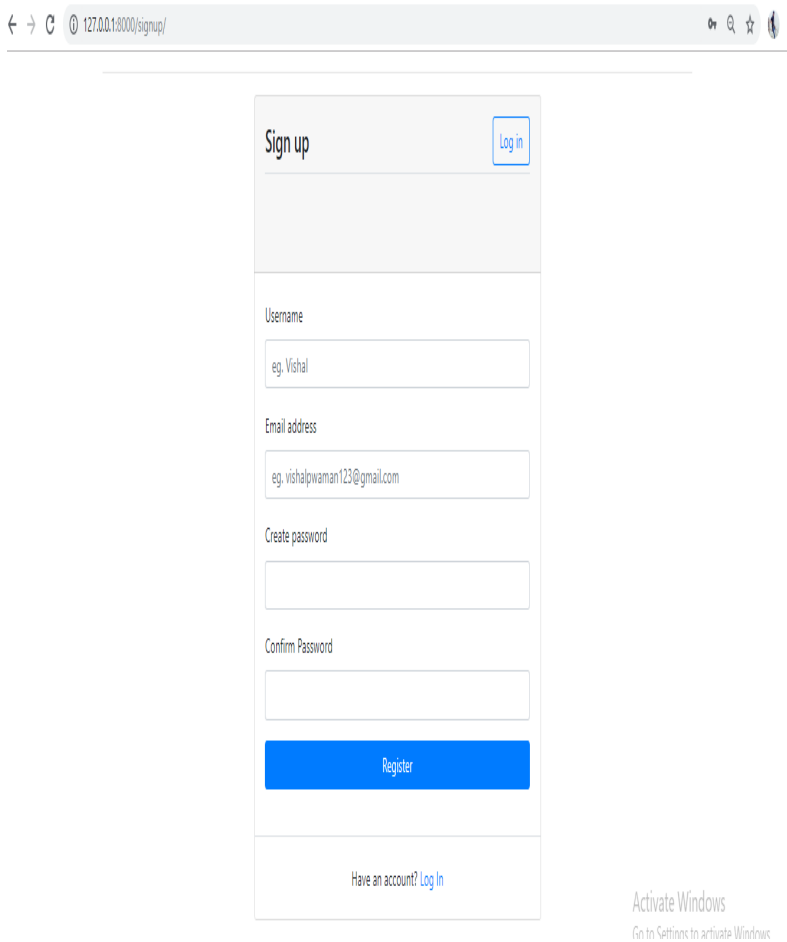

ON Audio And Video


127.0.0.1:8000/main/
Logout
Sentimental Analysis
Video File
Audio File

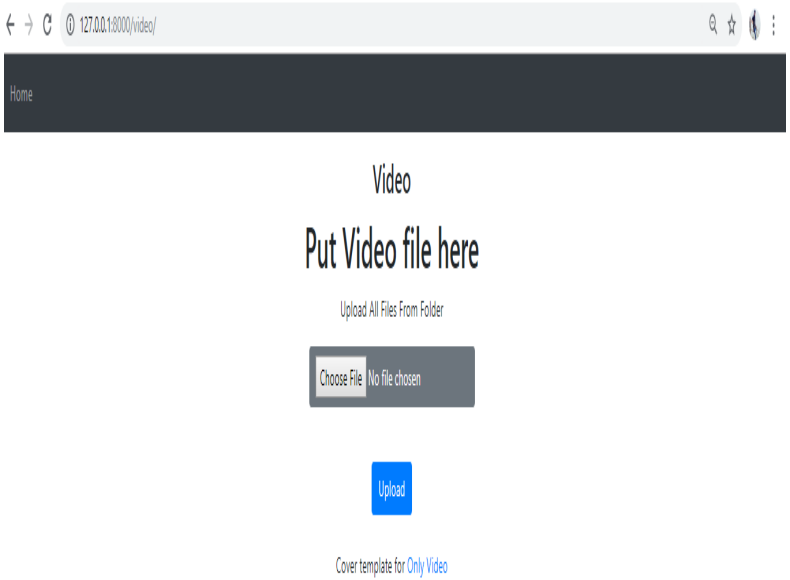
ON Audio And Video

OUTCOMES


127.0.0.1:8000/login/
Sign In
Username
monali
password
Sign In
Have an account? Sign Up


127.0.0.1:8000/signup/
Sign up
Log in
Username
eg. Vishal
Email address
eg. vishalpwaman123@gmail.com
Create password
Confirm Password
Register
Have an account? Log In
Activate Windows

OUTCOMES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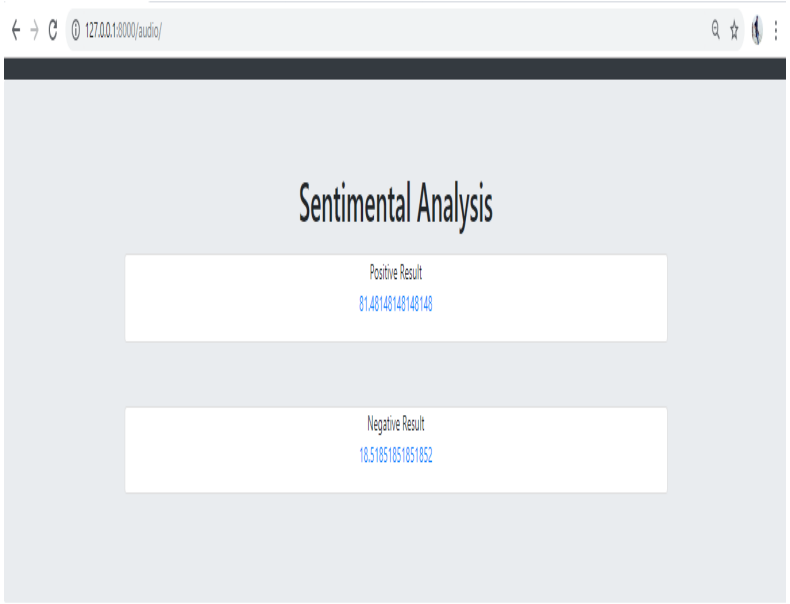
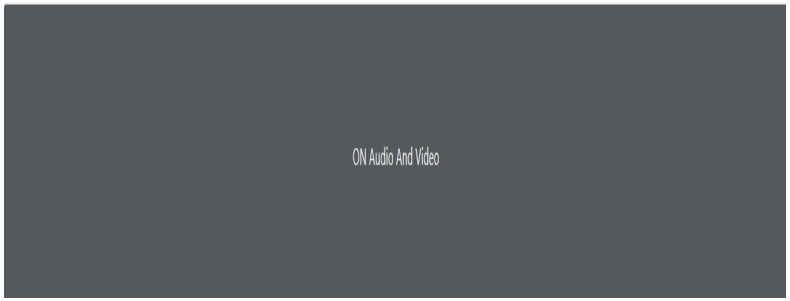
Home
Video
Put Video file here
Upload All Files From Folder
Choose File
No file chosen
Upload
Cover template for Only Video


127.0.0.1:8000/audio/
Sentimental Analysis
Positive Result
81.48148148148148
Negative Result
18.518518518518518


ON Audio And Video

CONCLUSION

- Increased Accuracy
- Analyze the usage and detect the Opinion in a particular product
- Dynamic Product strategy

Future Work

- Extract image data from video
- Image processing on image data

Applications

- Review-related Websites
- Sub-component Technology
- Business Intelligence
- Domains
- E-commerence
- Government polls

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Thank You!!!