PROJECT REPORT

(NAAN MUDHALVAN - IBM)

DISSECTING THE DIGITAL LANDSCAPE: A COMPREHENSIVE ANALYSIS OF SOCIAL MEDIA

TEAM ID: NM2023TMID07077

SUBMITTED BY

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CHAPTER 1

INTRODUCTION

1.1 PROJECT OVERVIEW

Dissecting the Digital Landscape: A Comprehensive Analysis of Social Media" is a research article or paper that provides a detailed and in depth analysis of various social media platforms, including Facebook, Twitter, Instagram, YouTube, and LinkedIn. The analysis covers a wide range of topics related to social media, such as the history and evolution of social media, the demographics of social media users, the impact of social media on communication and society, the role of social media in politics and activism, and the challenges and opportunities of social media for businesses and organizations.

The paper draws on a wide range of research studies, surveys, and data sources to provide a comprehensive overview of the digital landscape and its implications for individuals, organizations, and society as a whole. Overall, the paper aims to provide a comprehensive and up-to-date understanding of the complex and dynamic world of social media, and to inform future research, policy, and practice in this rapidly evolving field.

1.2 PURPOSE

The purpose of "Dissecting the Digital Landscape: A Comprehensive Analysis of Social Media "project is to conduct an in Depth and thorough examination of the social media land scape . This Analysis aims to gain a comprehensive under-standing of various aspects related to social media platforms, their impact on society, and their implications for individuals, businesses, and governments. The project may involve studying multiple social media platforms, such as Facebook, Twitter, Instagram, LinkedIn, YouTube, TikTok, etc., and could cover several

key areas, User Behavior and Engagement: Understanding how users interact with social media platforms, the patterns of content consumption, and the factors that influence engagement.

Content Analysis: Analyzing the types of content shared on different platforms, the prevalence of misinformation, hate speech, and other potentially harmful content.

Societal Impact: Examining the effects of social media on society, including its role in shaping public opinion, political discourse, and social movements.

Privacy and Data Security: Investigating the privacy policies and data security practices of various social media platforms, and how user data is collected, stored, and used.

Business and Marketing: Assessing the impact of social media on Businesses and marketing strategies, including influencer marketing, brand Reputation management, and customer engagement.

Mental Health and Well-being: Exploring the relationship between Social media usage and mental health issues, such as anxiety, depression, and self-esteem.

Regulatory and Ethical Considerations: Investigating the regulatory landscape and ethical dilemmas surrounding social media, including discussions about content moderation, data privacy laws, and freedom of expression.

Future Trends: Identifying emerging trends in social media, such as the rise of new platforms, the adoption of augmented reality (AR) and virtual reality (VR) technologies, and potential shifts in user behavior.

CHAPTER 2

LITERATURE SURVEY

2.1 EXISTING PROBLEMS

        Organizations are increasingly interested in their social media profile, and can derive insights into how they are perceived through analysis and classification. Twitter has become one of the top social media platforms for news, information, and interaction with brands and influential figures around the world. Therefore, it is no surprise that companies consider this micro blogging platform an essential channel for their marketing strategy and also, to provide customer service. Analysis of Twitter data can help companies obtain qualitative insights to understand how people are talking about their brand.

2.2 REFERENCES

Burgess, J., Bruns, A., & Hjorth, L. (2013). Emerging methods for digital media research: An introduction. *Journal of Broadcasting & Electronic Media, 57*(1), 1–3.

Chen, P. L., & Cheng, Y. C. (2014). From information to social convergence: Discovering emerging channels in major disasters. *Mass Communication Research, 21*, 89–125; (in Chinese).

Mahrt, M., & Scharkow, M. (2013). The value of big data in digital media research. *Journal of Broadcasting & Electronic Media, 57*(1), 20–33.

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Burgess, J., Bruns, A., & Hjorth, L. (2013). Emerging methods for digital media research: An introduction. Journal of Broadcasting & Electronic Media, 57(1), 1–3.

Chen, P. L., & Cheng, Y. C. (2014). From information to social convergence: Discovering emerging channels in major disasters. Mass Communication Research, 21, 89–125; (in Chinese).

2.3 PROBLEM STATEMENT DEFINITION

To fully understand and harness the potential of this dynamic landscape, there is an urgent need for an exhaustive exploration and dissection of social media's multifaceted dimensions. This entails a deep dive into various aspects, including the evolution and proliferation of social media platforms, user behaviours and demographics, content creation and dissemination dynamics, and the profound influence of social media on culture, politics, and business. The goal of this study is to provide an extensive, up-to-date, and multi-dimensional overview of the digital landscape, shedding light on the intricacies, opportunities, and challenges it presents. By dissecting the digital landscape comprehensively, we aim to equip individuals, organizations, and policymakers with the knowledge and insights required to make informed decisions, develop effective strategies, and navigate the ever-changing social media environment successfully. Furthermore, the research seeks to identify emerging trends and potential risks, offering a roadmap for leveraging social media's power for positive outcomes while mitigating potential harm to individuals and society at large."

CHAPTER 3

IDEATION & PROPOSED SOLUTIONS

3.1 EMPATHY MAP CANVAS
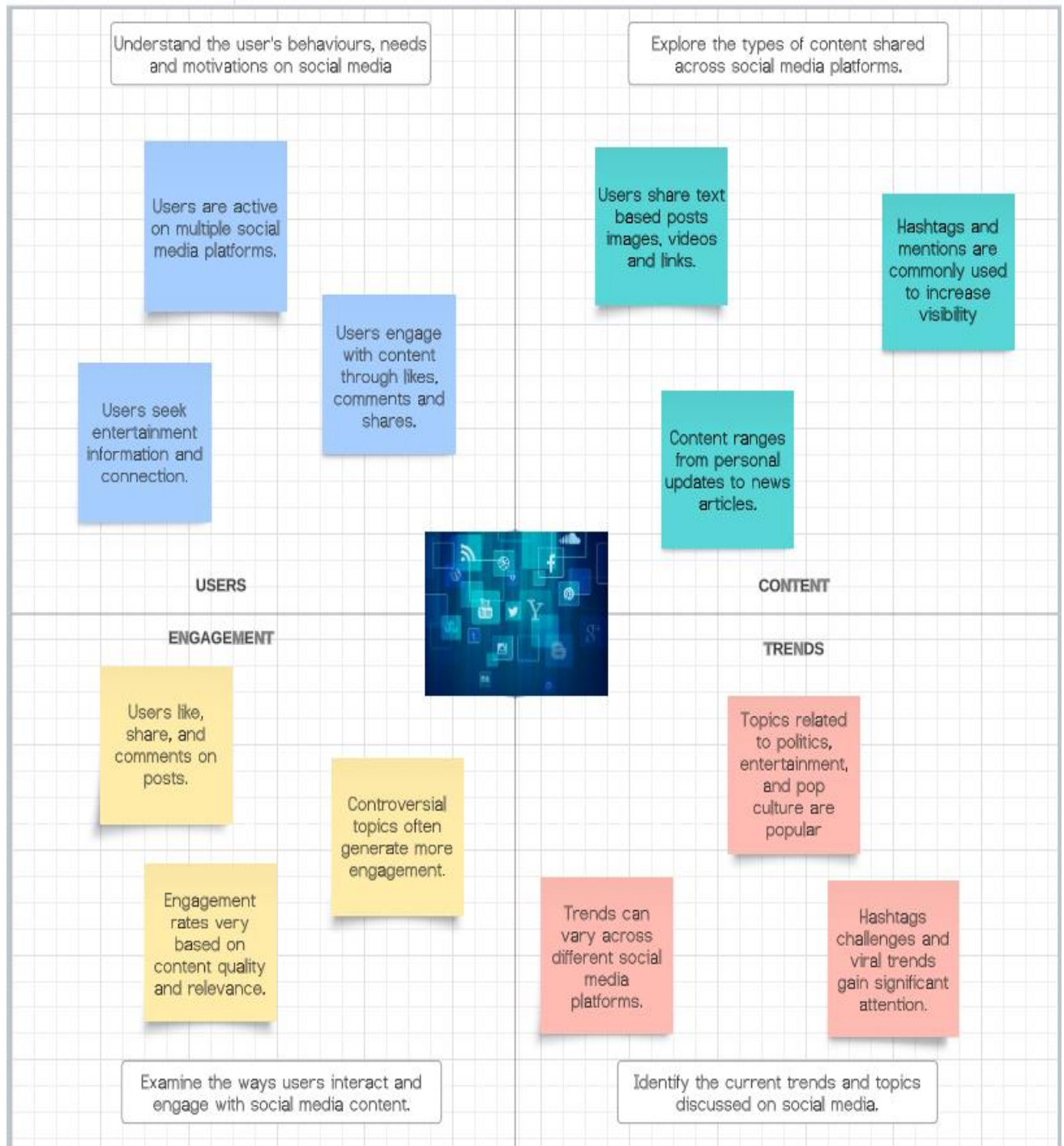
3.2 IDEATION & BRAINSTORMING

Template

Brainstorm & idea prioritization

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

- ⏱ **10 minutes** to prepare
- ⏳ **1 hour** to collaborate
- 👤 **2-8 people** recommended

Before you collaborate

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

🕐 10 minutes

A | **Team gathering**
Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.

B | **Set the goal**
Think about the problem you'll be focusing on solving in the brainstorming session.

C | **Learn how to use the facilitation tools**
Use the Facilitation Superpowers to run a happy and productive session.

Open article →

1

Define your problem statement

What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.

⏱ 5 minutes

PROBLEM

The proliferation of the internet and social media has changed the way people express their views and opinions, with many people now using platforms like Facebook, Twitter, and Instagram to share their thoughts, emotions, and experiences. As a result, social media generates a large volume of data in the form of tweets, comments, reviews, and other types of content. By analyzing this data, it is possible to understand the performance of social media platforms like Twitter, including trends and patterns in the way people use the platform and the types of content they engage with. This data can be especially useful for businesses and organizations that want to understand how their brand is perceived on social media, and make informed decisions about how to engage with their audience.

Key rules of brainstorming
To run an smooth and productive session

😐 Stay in topic.	💡 Encourage wild ideas.
😑 Defer judgment.	👂 Listen to others.
🗄 Go for volume.	👁 If possible, be visual.

2

Brainstorm

Write down any ideas that come to mind that address your problem statement.

⏱ 10 minutes

TIP
You can select a sticky note and hit the pencil [switch to sketch] icon to start drawing!

Vishnu Varthini

- Use insights from social media to analyze performance
- Analyze based on hashtag
- Social listening

Shahin Wafeqa

- Identify the content that is common among audience
- Competitive analysis
- Influencer analysis

Dharshini

- Monitor social media conversations related to a brand or industry.
- Content analysis
- Customer service analysis

Swetha Raji

- Analyze the connections between users on social media to identify influencers and key stakeholders
- Network analysis

Person 5

**Person 6**

Person 7

Person 8

3

Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. Once all sticky notes have been grouped, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you and break it up into smaller sub-groups.

⏱ 20 minutes

Monitor social media conversations related to a brand or industry.

Identify the content that is common among audience

Analyze the connections between users on social media to identify influencers and key stakeholders

Use insights from social media to analyze performance
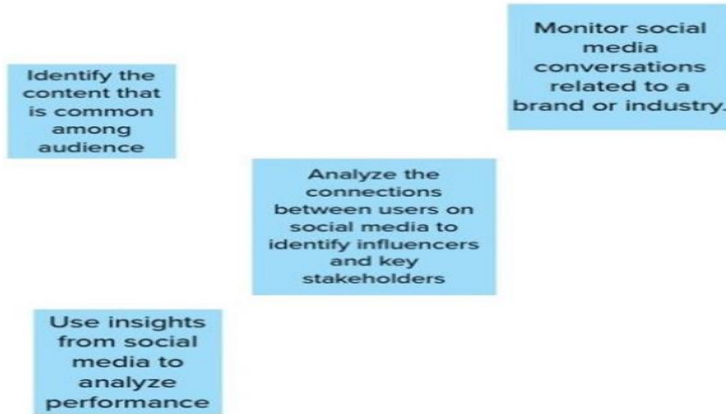
4

Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

⏱ 20 minutes

Monitor social media conversations related to a brand or industry.

Use insights from social media to analyze performance

Hashtag analysis

♡

Importance

If each of these tasks could get done without any difficulty or cost, which would have the most positive impact?

Identify the content that is common among audience

Analyze the connections between users on social media to identify influencers and key stakeholders
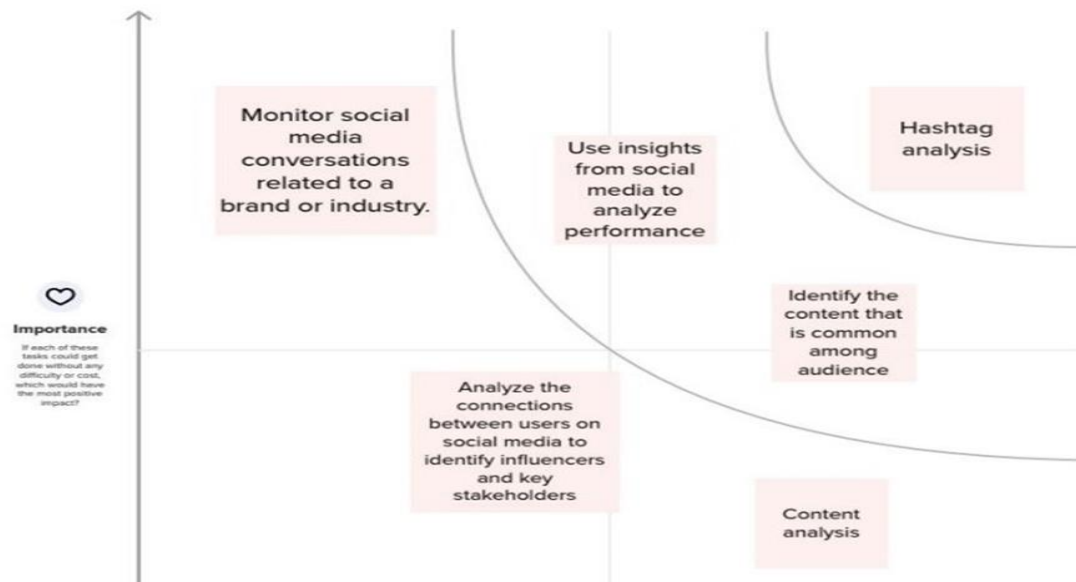
Content analysis

CHAPTER 4

REQUIREMENT ANALYSIS

4.1 FUNCTIONAL REQUIREMENT

Following are the functional requirements of the proposed system:

| FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through Form Registration through Gmail Registration through LinkedIN
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	Profile Setup	User Profile Creation. Profile Photo Upload.
FR-4	Content Sharing	Text Post Creation. Image Upload for Posts.
FR-5	Privacy Settings	Set Privacy for Profile. Set Privacy for Shared Content.
FR-6	Messaging System	Send Text Messages. Send Media Messages.
FR-7	Notifications	Receive Push Notifications. Manage Notification Preferences.
FR-8	Search Functionality	Implement Basic Search. Implement Advanced Search.
FR-9	Account Security	Password Change. Enable Two-Factor Authentication.
FR-10	Analytics & Reporting	Track User Engagement Metrics. Generate Usage Reports.

4.2 NON FUNCTIONAL REQUIREMENT

Following are the Non Functional requirements of the proposed system:

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	User-friendly and provide an intuitive interface, ensuring that users can easily navigate and perform tasks without requiring extensive training.
NFR-2	Security	Protect data and user information from unauthorized access, breaches, and threats, ensuring the confidentiality, integrity, and availability of data
NFR-3	Reliability	Operate consistently and reliably, minimizing downtime and ensuring that it functions correctly even under high loads or adverse conditions.
NFR-4	Performance	Perform efficiently, providing quick response times and handling concurrent users and high data loads without significant performance degradation.
NFR-5	Availability	Available to users whenever they need it, ensuring minimal downtime and high system uptime.
NFR-6	Scalability	Able to grow and adapt to increased demands, including adding more users, data, or transactions without significant architectural changes.

CHAPTER 5

PROJECT DESIGN

5.1 DATA FLOW DIAGRAMS AND USER STORIES
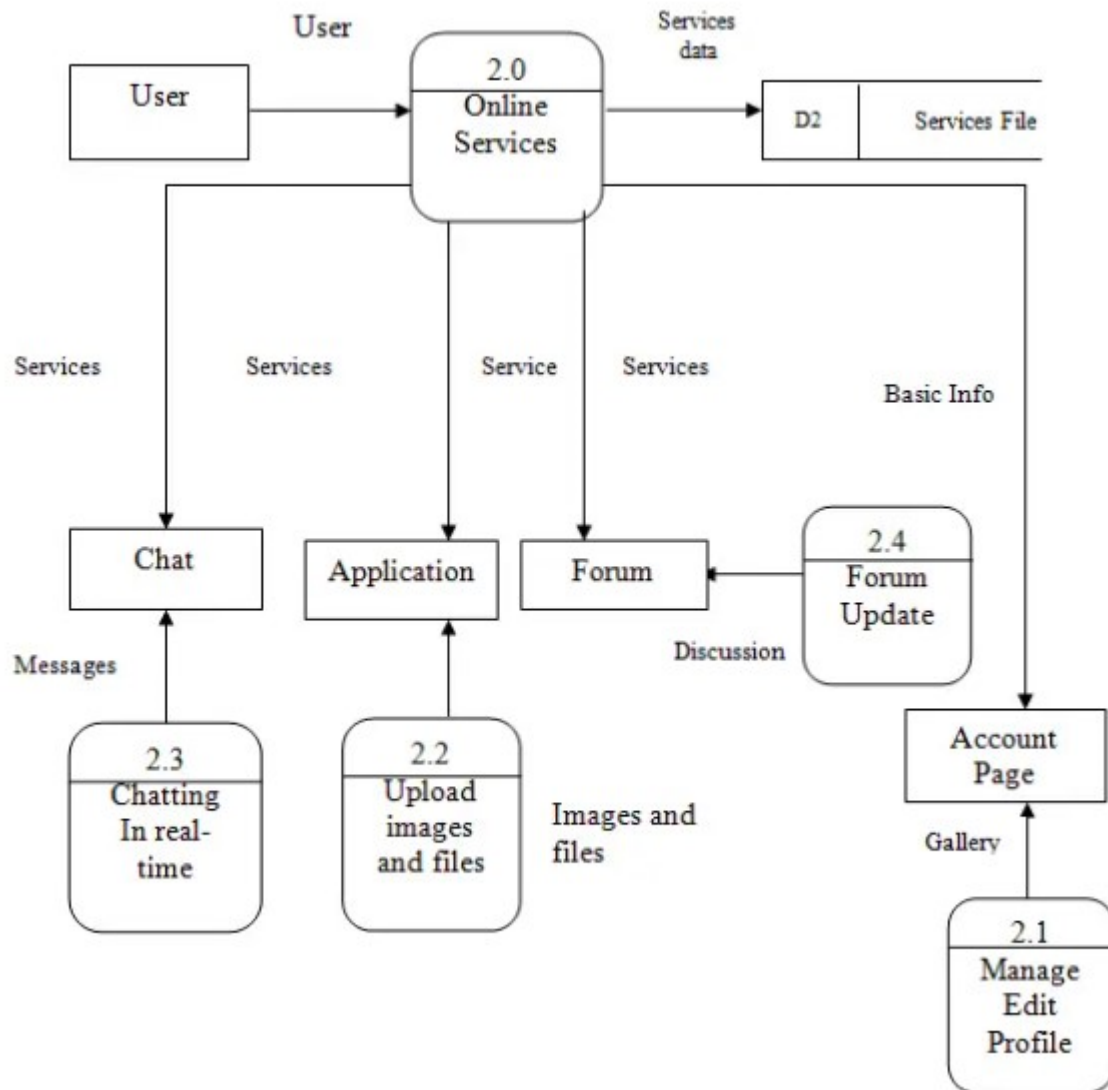
5.2 SOLUTION ARCHITECTURE
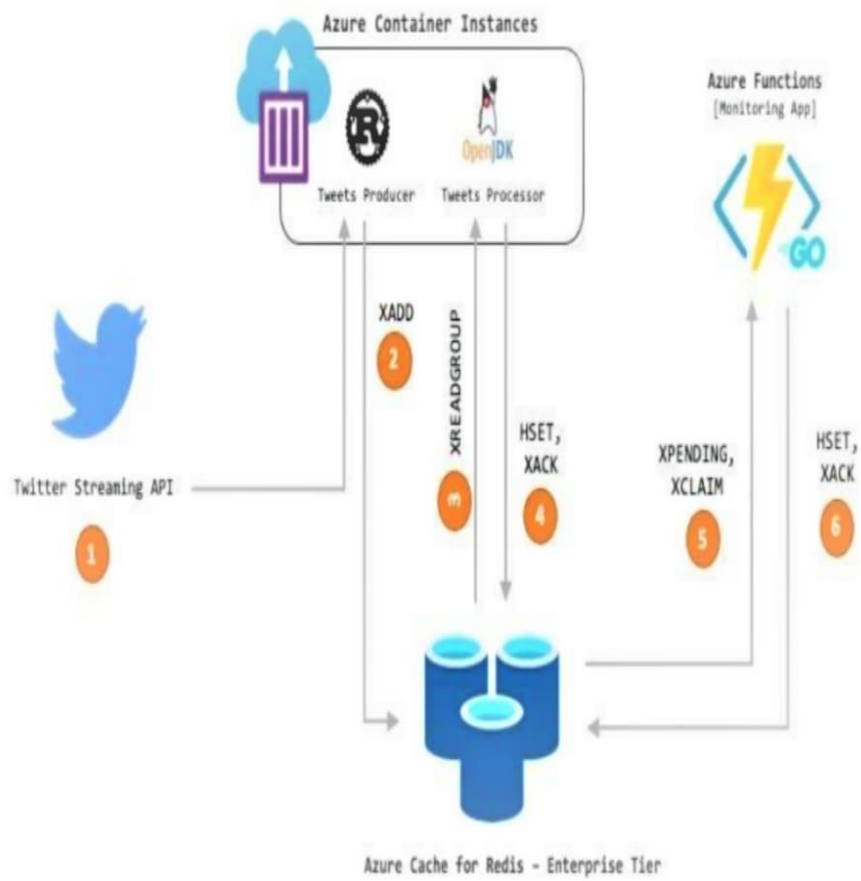
CHAPTER 6

PROJECT PLANNING AND SCHEDULING

6.1 TECHNICAL ARCHITECTURE
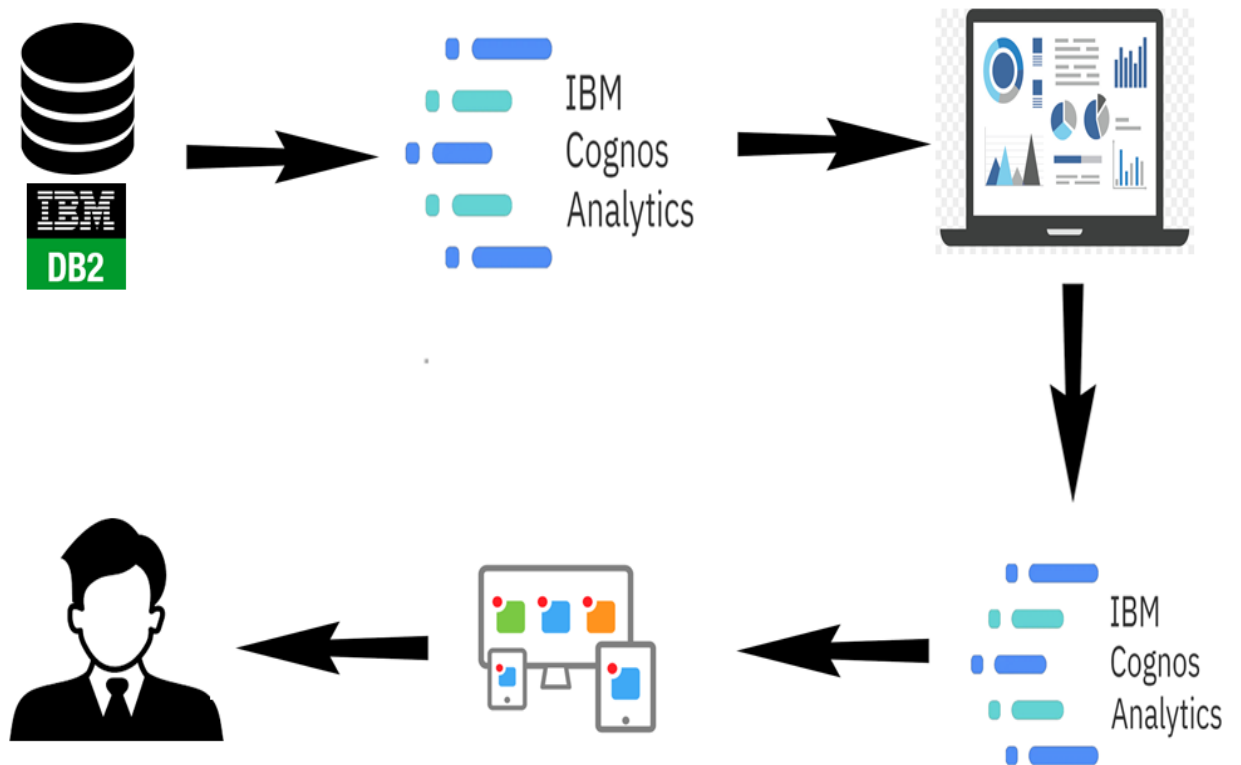
CHAPTER 7

CODING & SOLUTIONING

7.1 FEATURE 1:

app.py

```python
from flask import Flask, render_template

app = Flask(__name__)

@app.route("/")

def index():

    return render_template("social_media.html")

if __name__ == "__main__":

    app.run(debug=True)
```

7.2 FEATURE 2:

social_media.html

```html
<html>

<head>

<title> Comprehensive Analysis Of Social Media </title>

<style>

body {

        background-image: url('projectimage.png');

        background-size: cover;

        background-repeat: no-repeat;

        background-attachment: fixed;

}

h1, h2, h3, h4, h5, h6
```

```
{

    text-align: center;

    color: rgb(51, 5, 53);

    background-color: rgb(255, 0, 0);

}

.top-bar

{

  background-color: #28bedc;

  color: #fff;

  text-align: center;

  padding: 10px 0;

}

.button

{

  background-color: #28bedc;

  color: #fff;

  padding: 10px 20px;

  margin: 10px;

  border: none;

  cursor: pointer;

}

.button:hover {

  background-color: #28bedc;

}

</style>

</head>

<body>
```

```html
<div class="top-bar">

  <button class="button" onclick="scrollToReport()">Report</button>

  <button class="button"
onclick="scrollToDashboard()">Dashboard</button>

  <button class="button" onclick="scrollToStory()">Story</button>

</div>

<h1> NM PROJECT-DATA ANALYTICS </h1>

<h1> Dissecting The Digital Landscape </h1>

<h1>A Comprehensive Analysis Of Social Media </h1>

<div id="report">

<h2> IBM COGNOS REPORT </h2>

<br>

<iframe
src="https://ap1.ca.analytics.ibm.com/bi/?pathRef=.my_folders%2Fsocial%
2Bmedia%2Bfinal%2Breport&amp;closeWindowOnLastView=true&amp;ui_appbar=f
alse&amp;ui_navbar=false&amp;shareMode=embedded&amp;action=run&amp;form
at=HTML&amp;prompt=false" width="1000" height="1000" frameborder="0"
gesture="media" allow="encrypted-media" allowfullscreen=""></iframe>

</div>

<div id="dashboard">

<h2> IBM COGNOS DASHBOARD </h2>

<br>

<iframe
src="https://ap1.ca.analytics.ibm.com/bi/?perspective=dashboard&amp;pat
hRef=.my_folders%2Fsocial%2Bmedia%2Bdashboard&amp;closeWindowOnLastView
=true&amp;ui_appbar=false&amp;ui_navbar=false&amp;shareMode=embedded&am
p;action=view&amp;mode=dashboard&amp;subView=model0000018b42fad2e3_0000
0002" width="1000" height="1000" frameborder="0" gesture="media"
allow="encrypted-media" allowfullscreen=""></iframe>

</div>

<div id="story">
```

```html
<h2> IBM COGNOS STORY </h2>

<iframe
src="https://ap1.ca.analytics.ibm.com/bi/?perspective=story&amp;pathRef
=.my_folders%2Fsocial%2Bmedia%2Bstory&amp;closeWindowOnLastView=true&am
p;ui_appbar=false&amp;ui_navbar=false&amp;shareMode=embedded&amp;action
=view&amp;sceneId=-1&amp;sceneTime=0" width="1000" height="1000"
frameborder="0" gesture="media" allow="encrypted-media"
allowfullscreen=""></iframe>

</div>

<script>

// JavaScript for smooth scrolling to the sections

function scrollToReport()

{

    document.getElementById("report").scrollIntoView({
behavior:"smooth" });

    }

function scrollToDashboard()

{

  document.getElementById("dashboard").scrollIntoView({ behavior:
"smooth" });

}

function scrollToStory() {

  document.getElementById("story").scrollIntoView({ behavior: "smooth"
});

}

</script>

<h3> DONE BY <br> TEAM LEADER: PAVITHRA.S.R

<br> TEAM MEMBERS: ROSHINI, SHARMATHI, VAISHNAVI </h3>

</body>

</html>
```
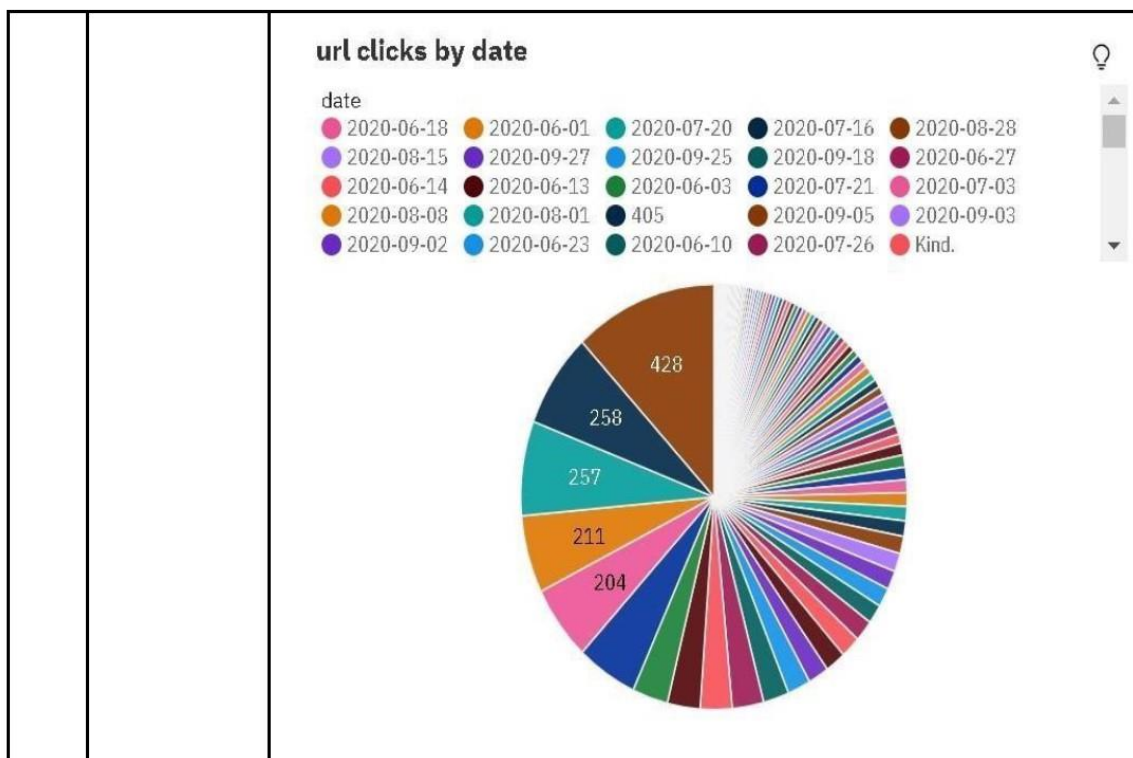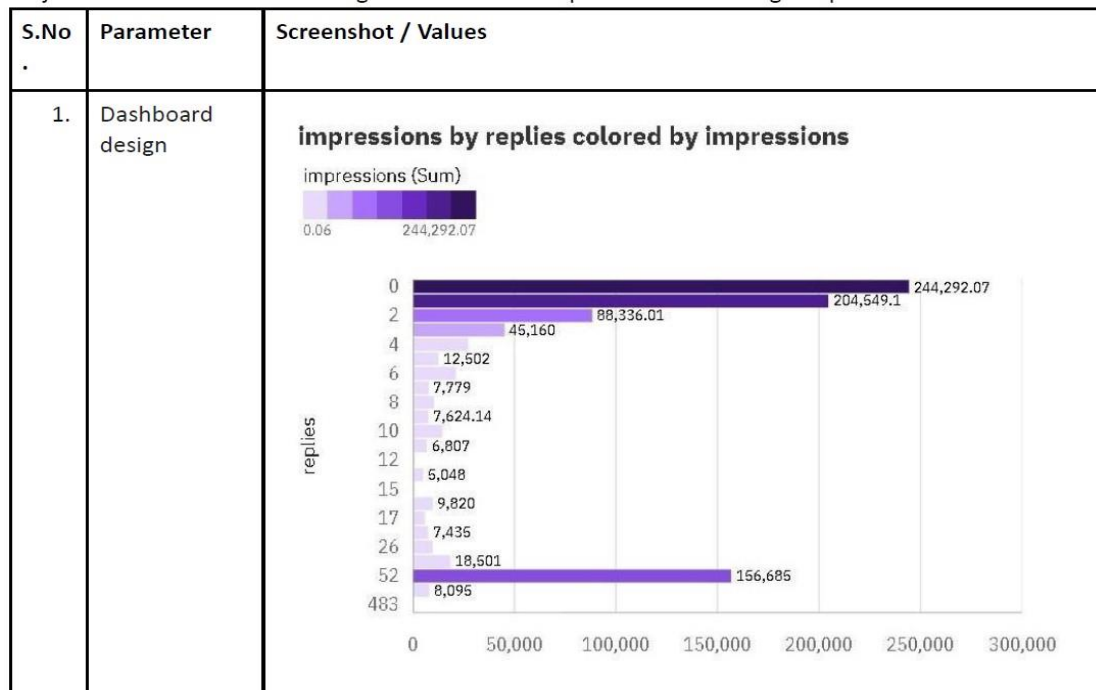
CHAPTER 8

RESULTS

8.1 PERFORMANCE METRICS

S.No.	Parameter	Screenshot / Values
1.	Dashboard design	

impressions by replies colored by impressions

impressions (Sum)

0.06   244,292.07

replies

0	244,292.07
	204,649.1
2	88,336.01
4	45,160
6	12,502
8	7,779
10	7,624.14
12	6,807
15	5,048
17	9,820
26	7,435
52	18,501
483	156,685
	8,095

0   50,000   100,000   150,000   200,000   250,000   300,000

url clicks by date

date
- 2020-06-18
- 2020-06-01
- 2020-07-20
- 2020-07-16
- 2020-08-28
- 2020-08-15
- 2020-09-27
- 2020-09-25
- 2020-09-18
- 2020-06-27
- 2020-06-14
- 2020-06-13
- 2020-06-03
- 2020-07-21
- 2020-07-03
- 2020-08-08
- 2020-08-01
- 405
- 2020-09-05
- 2020-09-03
- 2020-09-02
- 2020-06-23
- 2020-06-10
- 2020-07-26
- Kind.

428
258
257
211
204

app installs by app opens

2.	Data Responsiveness	

hashtag clicks

Tree sunburst — **Tree diagram** — Rules

hashtag clicks
0 — 2

Nodes
All

impr...
- < 396
- [396, 858) — enga...
  - < 0.02949
  - [0.02949,...
  - ≥ 0.05085
- ≥ 858 — user profile clicks
  - < 4 — enga...
    - < 0.01873
    - [0.01873,...
    - ≥ 0.02949
  - ≥ 4 — retw...
    - < 2
    - ≥ 2

3.	Utilization of Data Filters	
		retweets and replies by email tweet

retweets and replies by email tweet

Column
● replies (Sum)

Line
● retweets (Sum)

replies (Sum) / retweets (Sum)

email tweet: 0, 16, 85, 230, 381, 1,341

media views, media engagements

Measures
● media views ● media engagements

media views: 89,075
media engagements: 61,520
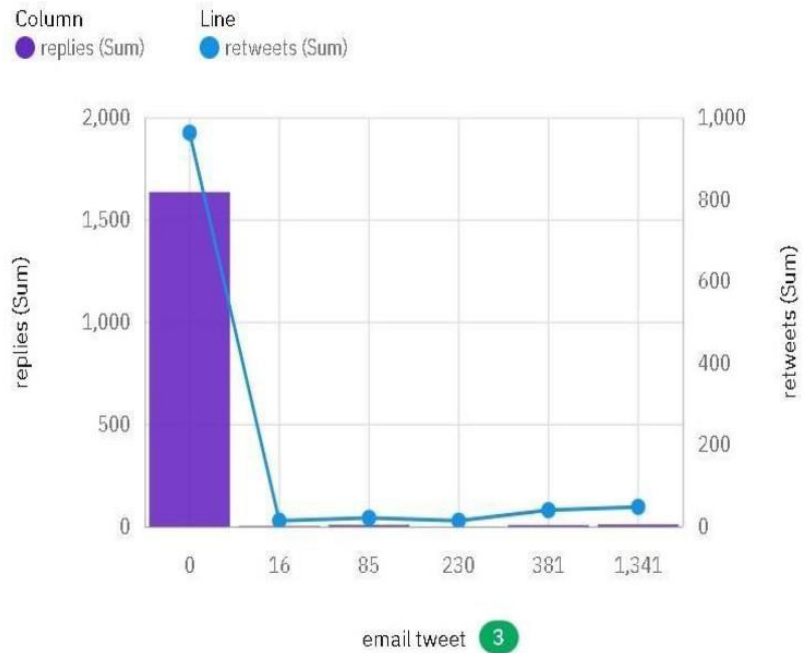
Values
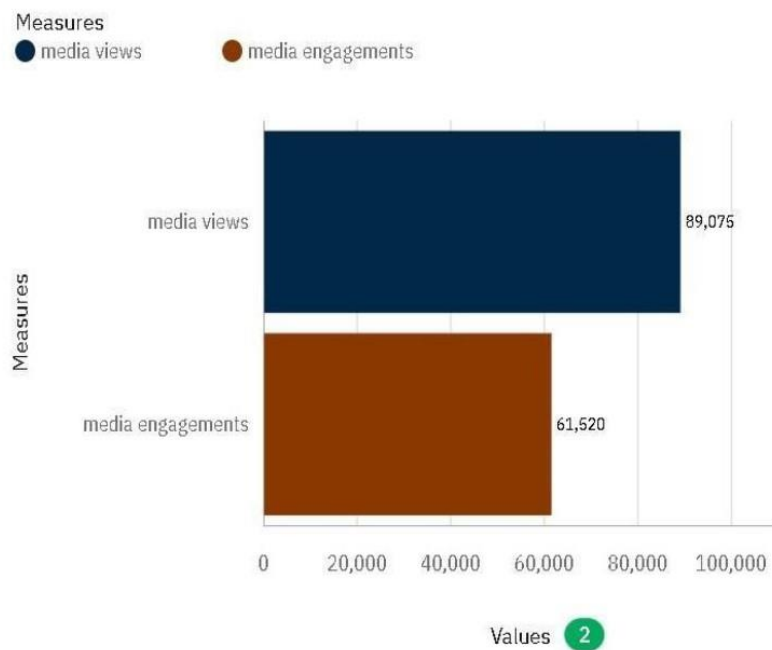
		detail expands hierarchy colored by hashtag clicks and sized hashtag clicks hashtag clicks (Su... hashtag clicks (Su...
4.	Effective User Story	
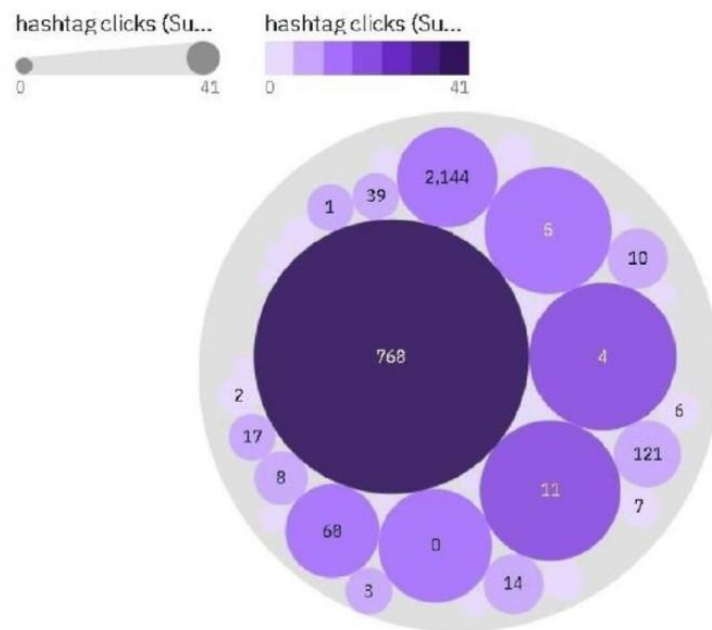
CHAPTER 9

RESULTS

In this comprehensive project report titled "Dissecting the Digital Landscape: A Comprehensive Analysis of Social Media," we present a multifaceted exploration of the social media landscape, featuring a dynamic and interactive website powered by IBM Cognos Analytics. Our project showcases a meticulously designed dashboard, offering a real-time snapshot of essential social media metrics. This dashboard empowers stakeholders to make informed decisions by visualizing user engagement, content performance, and other crucial key performance indicators. Moreover, we have woven the art of storytelling into our website, enhancing data communication. Through engaging data visualizations and narratives, we elucidate intricate social media trends and their implications, transforming data into a compelling narrative. The project also includes a set of comprehensive reports, dissecting social media platforms' performance, user behaviors, engagement strategies, and more. These reports serve as a vital resource, providing actionable insights for strategic planning and decision-making. Our data integration process, cleanliness, and transformation ensure data accuracy and reliability, underpinning the foundation of our analysis. Key findings and insights, encapsulating emerging trends and patterns, underscore the report's significance, while evaluations of the user experience and accessibility validate the website's user-friendly nature. We provide practical applications for our insights, offering actionable recommendations for social media marketing strategies, content creation, and user engagement. Looking ahead, we contemplate future enhancements, expanding data sources and functionalities. Properly cited references underpin our analysis's credibility, fostering further exploration. In conclusion, this project report offers a powerful and holistic examination of the digital landscape, enabling a deeper understanding and effective utilization of the ever-evolving realm of social media.

CHAPTER 10

ADVANTAGES AND DISADVANTAGES

ADVANTAGES:

1. **Connectivity:** The first and main advantage of the social media is connectivity.

2. **Education:** Social media has a lot of benefits for the students and teachers.

3. **Helps Government and Agencies Fight Crime:** It helps Governments and security agencies to spy and catch criminals is to fight crimes.

4. **Worldwide Connectivity:** It is easier and faster to make new friends or business connections or extend their personal base.

DISADVANTAGES:

1. **Cyber Bullying:** Easy to spread false information, anything can be spread to millions of people in an instant.

2. **Lack of Privacy:** safety is at stake when you share everything online, with so much sharing going on, issues over privacy will always be a big concern

3. **Addictions:** Often users of these sites gets addicted to it, it causes mental health problems and sometimes it harms their body too.

4. **Loss of Motivation in Students:** The students started relying more on information accessible easily on these networks and sites. This reduces their learning and research capabilities.

GITHUB & PROJECT VIDEO DEMO LINK

- **GITHUB LINK :** git@github.com:Pavi0406/Dissecting-The-Digital-Landscape.git

- **VIDEO DEMO LINK :** https://youtu.be/AE1QWOM2Qg0