EXPLORATORY DATA ANALYSIS ON INDIAN FOOD

IBM NAAN MUDHALVAN

PROJECT REPORT

Submitted By

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in partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING
in
COMPUTER SCIENCE AND ENGINEERING

KNOWLEDGE INSTITUTE OF TECHNOLOGY,

SALEM-637504

ANNA UNIVERSITY::CHENNAI 600 025

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BONAFIDE CERTIFICATE

Certified that this project report titled **"EXPLORATORY DATA ANALYSIS ON INDIAN FOOD"** is the bonafide work of **"SIVADHARSHINI S (611220104142), SRINIRMALA T (611220104151), THIRISHAA M U (611220104164), VARSHINI A S (611220104165)"** who carried out the project work under my supervision.

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HEAD OF THE DEPARTMENT

ACKNOWLEDGEMENT

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ABSTRACT

ABSTRACT

This project delves into the realm of Indian cuisine through the lens of Exploratory Data Analysis (EDA). Indian food is celebrated for its diversity, encompassing a wide array of flavors, ingredients, and regional variations To gain a deeper understanding of the preferences and consumption patterns of Indian food, this EDA project leverages data from various sources, including surveys, online reviews, and government statistics.

The primary objectives of this EDA are to identify popular Indian dishes, examine regional culinary variations, analyze dietary preferences, and assess the impact of factors such as culture, geography, and demographics on Indian food choices.The project employs data visualization and statistical techniques to extract meaningful insights from the collected data.Through this EDA, we aim to shed light on the multifaceted world of Indian food, offering a comprehensive overview of the flavors, ingredients, and cultural influences that shape this culinary landscape. Additionally, this project sets the stage for future in-depth research and analysis to further enrich our understanding of the role of food in Indian society.

LIST OF FIGURES

LIST OF ABBREVIATIONS

ABBREVIATION	EXPANSION
EDA	Exploratory Data Analysis
HTML	Hypertext markup language
CSV	Comma separated values

INTRODUCTION

CHAPTER 1

INTRODUCTION

1.1 Project Overview

To achieve our objectives, we will curate diverse datasets, including recipes, nutritional information, historical data, and regional cooking styles. Employing statistical measures and machine learning algorithms, we'll analyze the data to identify flavor profiles, ingredient combinations, and even predict emerging culinary trends. Through data visualizations, such as heatmaps, scatter plots, and geographical representations, we aim to present a compelling narrative that showcases the geographical, cultural, and temporal evolution of Indian cuisine.

Collaboration with experts in food anthropology, nutrition, and culinary arts will lend depth to our analysis, ensuring a multidimensional exploration. We anticipate uncovering fascinating insights, such as the impact of climate on ingredient preferences, the evolution of recipes over time, and the cultural significance of certain dishes.

Ultimately, our Indian Food Exploratory Data Analysis seeks to not only celebrate the richness of Indian cuisine but also contribute meaningful data-driven perspectives that extend beyond the realm of gastronomy, touching on cultural, social, and historical aspects..

1.2 Purpose

The primary purpose of the Indian Food Exploratory Data Analysis project is to unravel the multifaceted layers of Indian cuisine through a data-driven lens. By systematically analyzing diverse datasets encompassing recipes, nutritional information, and cultural influences.

Gain insights into the cultural, historical, and regional nuances that shape Indian cuisine, fostering a deeper appreciation for the diversity within the country. Identify prevalent flavor profiles, spice combinations, and cooking techniques, providing a comprehensive understanding of the sensory aspects that define Indian dishes.

Uncover patterns and trends within the culinary landscape, enabling predictions about emerging preferences, ingredient popularity, and evolving cooking styles.Serve as an educational resource for food enthusiasts, chefs, researchers, and the general public, offering a curated exploration of Indian gastronomy backed by data-driven insights.

Facilitate collaboration between culinary experts, nutritionists, anthropologists, and data scientists to extract holistic insights that extend beyond the culinary domain, exploring connections to health, history, and cultural identity.Contribute to the documentation and preservation of traditional recipes, cooking methods, and culinary practices, ensuring the rich heritage of Indian cuisine is not only celebrated but also safeguarded for future generations.

LITERATURE SURVEY

CHAPTER 2

LITERATURE SURVEY

2.1 Analysis of Indian food[Sasmita kumari nayak,Mamata Beura,Mohammed siddique,Siba prasad Mishra]

The popularity in classification of Indian Food is gaining slowly due to the awareness of food and health among people.As indicated by the World Health Organization (WHO) [5,14], more than 1.9 billion adults (18 years above) were overweight.It is terribly stunning to understand that 13% of the total populace includes both women and men (15% women and 11% men) are overweight.In reality, some of individuals over the globe are suffered from overweight, which has doubled since 1980. As a result, it shows that food has played an important role in fitness of an individual. According to the Statistics, 95% of the individual disobeys the dietary plan as they are very strict and restrict individual to consume their regular food.

2.2 DIETARY ASSESSMENT AND INDIAN CUISINE ANALYSIS USING EDA[1Pearl Ahuja, 2Diksha Solanki, 3Amita Goel, 4Nidhi Sengar, 5Vasudha Bahl]

India is unique in its own way. It is not confined to one culture or one language, but has several cultures flowing through its vast lands and many languages are spoken.The many similarities between the culinary regions of India are highlighted with an exquisite use of spices and flavorings. These range from cardamom, cumin, cloves, fennel seeds and garlic to ginger, chilies, fenugreek, saffron and turmeric. Spice mixtures or masalas are a crucial element of Indian cuisine.Food and taste are resolute by its culture, anatomy, and genetics.

2.3 Study On Region Wise Analysis of Indian Food.[CHAITANYA MOHTA

Indian cuisine is renowned for its variety and rich cultural heritage, with each region offering distinct flavors and cooking traditions. In North India, staples like dairy, wheat, and an array of aromatic spices dominate the cuisine, while South India celebrates rice, coconut, and a fiery blend of spices. East India showcases its love for fish, rice, and mustard oil, whereas West India boasts the fusion of legumes, seafood, and coconut-based dishes. Central India introduces millets and lentils as dietary essentials. The popularity of street food, snacks, and the use of spices vary significantly across regions, reflecting local tastes and preferences.

2.4 THE INDIAN CUISINE: AN EXPLORATION[Gagandeep Singh]

Indian cuisine has gained a primary place, especially in the Western world as a result of globalization and other factors such as immigration, availability of recipes on the web and increased tourism activities. From „chicken tikka masala" becoming the national dish of Britain to many Indian recipes appearing on various international flights, Indian food items have secured their place on the new global menu.Indian cuisine has evolved over the years and it has a strong connection to its culture, history, and geography. The dietary patterns have also evolved based on various religious practices.

SYSTEM ANALYSIS

CHAPTER 3

IDEATION & PROPOSED SOLUTION

3.1 Problem Statement Definition

Perform exploratory data analysis (EDA) on a dataset of Indian food to uncover insights and patterns in cuisine and ingredients.Clean and preprocess the dataset to handle missing data and duplicates, ensuring it is suitable for analysis. Use data visualization techniques to present findings, such as regional dish distribution and ingredient popularity.Provide insights into Indian cuisine characteristics and offer recommendations based on EDA results.

The challenges we address encompass the lack of standardized and comprehensive data on Indian food, the need for a user-friendly platform that caters to the diverse requirements of various stakeholders, and the absence of data-driven insights into the evolution of Indian culinary traditions. The project's primary goal is to transform this vast uncharted culinary territory into an accessible and informative resource that is both educational and inspirational. We aim to bring the magic of Indian food to the world through data, unlocking its potential to enrich the experiences of food enthusiasts, researchers, and culinary professionals, and thereby fostering a deeper understanding and appreciation of this diverse and fascinating culinary heritage.

Our mission is to create an inclusive and user-friendly tool that provides a window into the vibrant world of Indian cuisine. We strive to empower our users with the ability to uncover hidden culinary gems, appreciate regional preferences, and adapt to evolving culinary trends while celebrating the rich tapestry that is Indian food

3.2 EMPATHY MAP CANVAS

An empathy map is a collaborative tool teams can use to gain a deeper insight into their customers. Much like a user persona, an empathy map can represent a group of users, such as a customer segment. The empathy map was originally created by Dave Gray and has gained much popularity within the agile community. Have the team members speak about the sticky notes as they place them on the empathy map. Ask questions to reach deeper insights so that they can be elaborated for the rest of the team. To help bring the user to life, you may even wish to sketch out the characteristics this person may have on the center of the face.

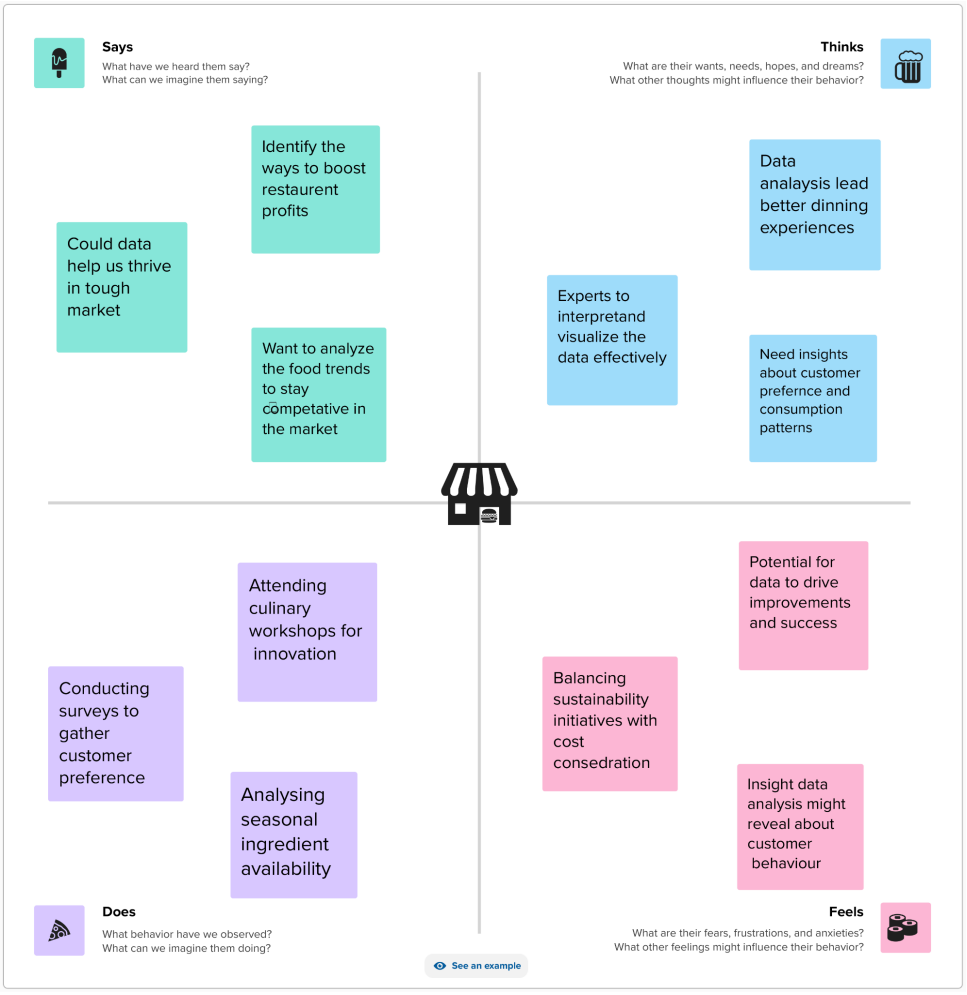

Figure 3.2.1 Empathy map.

3.3 IDEATION AND BRAIN STROMING

Brainstorming provides a free and open environment that encourages everyone within a team to participate in the creative thinking process that leads to problem solving. Prioritizing volume over value, out-of-the-box ideas are welcome.

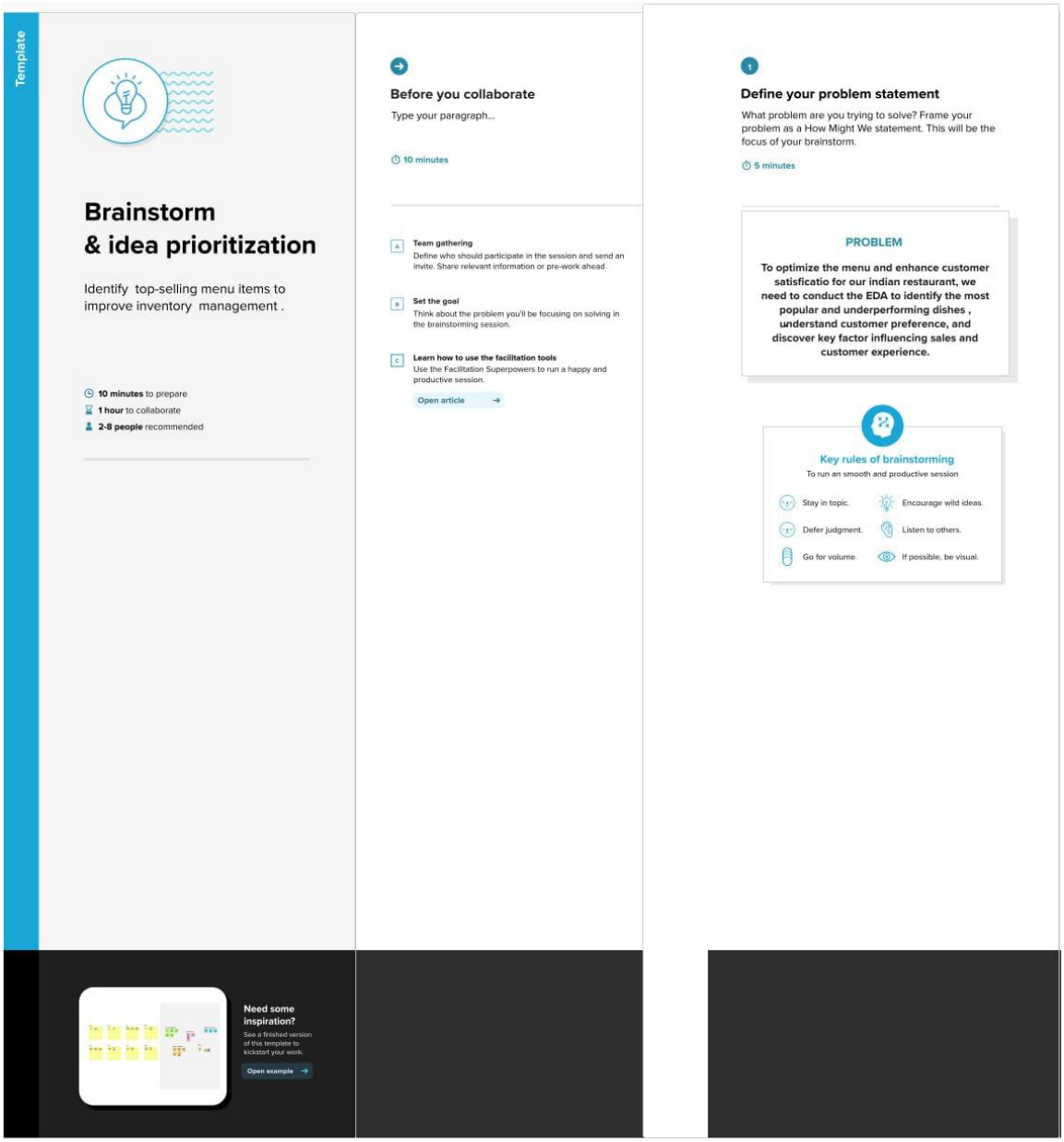

Figure 3.3.1 Brain Storming.

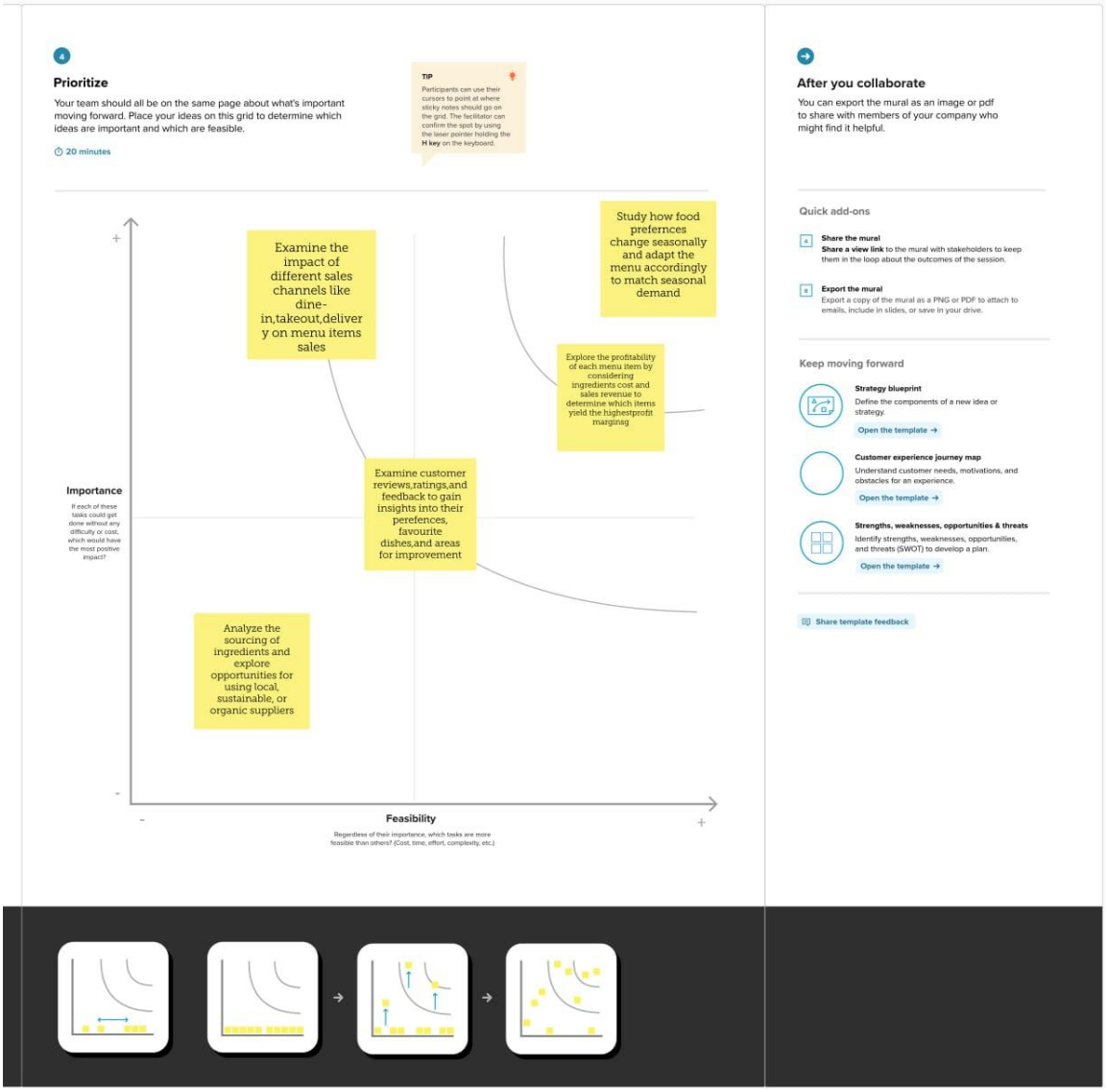

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Figure 3.3.1 Brain Storming.

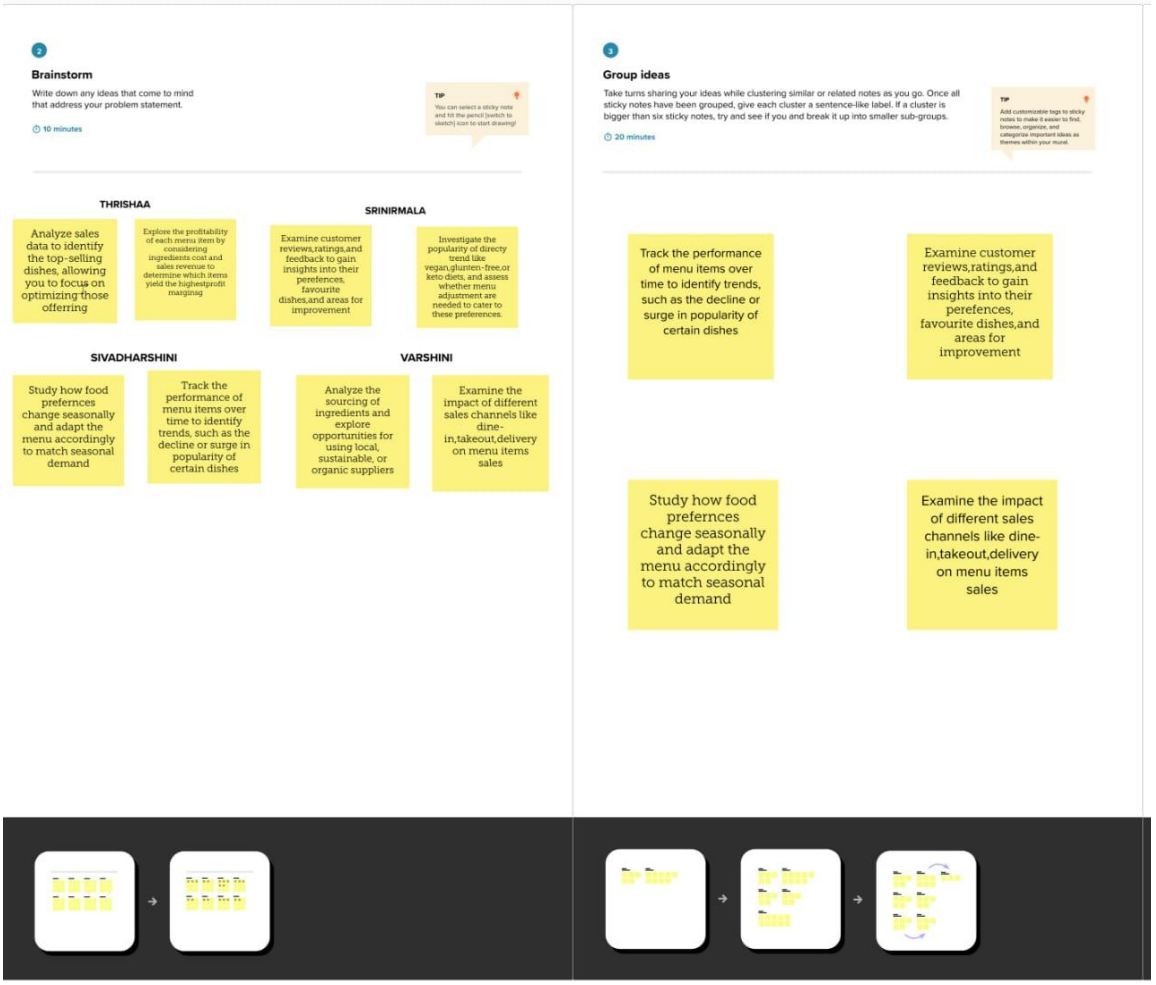


Figure 3.3.1 Brain Storming.

3.4 PROPOSED SOLUTION

S.No.	Parameter	Description
01.	**Problem Statement (Problem to be solved)**	The lack of comprehensive data-driven insights into Indian food preferences and consumption patterns poses challenges for businesses, policymakers, and researchers. This absence hinders businesses from effectively catering to local tastes and preferences, especially with regard to identifying popular dishes and understanding regional culinary variations. Furthermore, there is a need to analyze evolving dietary preferences and trends in Indian cuisine to adapt to changing consumer choices and promote public health. This project aims to bridge these information gaps through exploratory data analysis, providing a foundation for data-informed nature of Indian cuisine.
02.	**Idea / Solution description**	Through data visualization and statistical analysis, it aims to uncover trends, regional variations, and the impact of culture and demographics on Indian food choices.The project will provide valuable insights to help businesses tailor their offerings.
03.	**Novelty / Uniqueness**	Comprehensive Data Fusion: This project amalgamates data from diverse sources, providing a comprehensive view of Indian food habits and preferences. It explores regional, cultural, and dietary influences
04.	**Social Impact / Customer Satisfaction**	Cultural Preservation: This project contributes to the preservation of Indian culinary diversity and cultural heritage, promoting appreciation and understanding of regional cuisines.

05.	**Business Model (Revenue Model)**	● Consulting Services: Provide consulting services to restaurants and food businesses looking to optimize their menus and operations based on the project's insights. ● Custom Reports: Generate customized reports and in-depth analyses for specific clients, including businesses, government bodies, ● Advisory Services: Offer advisory services to policymakers and public health agencies seeking to develop initiatives related to food and nutrition.
06.	**Scalability of the Solution**	The project can scale by continuously expanding its data sources, encompassing more surveys, reviews, and government statistics, which can lead to more comprehensive and accurate insights.

REQUIREMENT ANALYSIS

CHAPTER 4

REQUIREMENT ANALYSIS

4.1 FUNCTIONAL REQUIREMENTS

Following are the functional requirements of the proposed solution.

FR.NO	Functional Requirement (Epic)	Sub Requirement (Story Sub-Task)
FR.1	**Data Collection**	For an Indian food exploratory data analysis, collect recipe details, nutritional info, user ratings, images, regional data, dietary preferences, spices, preparation time, cultural context, social media insights, ingredient prices, restaurant data, government sources, and crowdsourced trends.
FR.2	**Data Cleaning**	Once the data is Collected, it needs to be cleaned to remove any errors or inconsistencies. This may involve removing duplicates, correcting misspelled words, and standardizing data format.
FR.3	**Data Preparation**	After cleaning, This step includes feature engineering, scaling, and normalizing data, dealing with categorical variables, and splitting the

		dataset for analysis. It aims to make the data suitable for statistical analysis and modeling in the EDA categorical data into numerical data.
FR.4	**Data Analysis**	Once the data is Cleaned and Prepared, it can be analyzed using various statistical techniques. This may involve exploratory data analysis, regression analysis and Clustering analysis to identify patterns and insights.
FR.5	**Data Visualization**	To Communicate the insights from the analysis effectively, data visualization techniques can be used. This may include creating charts, Graphs and dashboard to visualize the data in a meaningful way.
FR.6	**Reporting**	Finally, A Report can be generated that summarizes the findings from the data analysis. This report may include Visualizations, insights and recommendations for companies or Job seekers based on the analysis.

4.2 NON- FUNCTIONAL REQUIREMENTS

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirements	Description
NFR.1	Usability	It involves making the EDA tools and insights easily accessible, intuitive, and efficient for analysts and stakeholders, ensuring that they can extract valuable insights from the data related to Indian cuisine effectively.
NFR.2	Security	This involves implementing encryption, access controls, and best practices to ensure the confidentiality, integrity, and availability of the data, especially when dealing with sensitive or personal information.
NFR.3	Reliability	It ensures that data collection and analysis processes are dependable, and results can be trusted. Rigorous data validation, quality control, and documentation practices are key to achieving a reliable outcome for Indian food.
NFR.4	Performance	This gives optimizing data retrieval, cleaning, and visualization to ensure the EDA is timely and doesn't suffer from lags or delays. Fast,

		responsive tools and systems enhance the overall efficiency of the analysis process.
NFR.5	**Availability**	It refers to the ability in an Indian food exploratory data analysis (EDA) refers to ensuring that the data, tools, and insights are accessible when needed. It involves maintaining robust servers and infrastructure, creating backups, and implementing disaster recovery plans to prevent downtime, ensuring that stakeholders can access the EDA resources reliably.
NFR.6	**Scalability**	Scalability in an Indian food exploratory data analysis (EDA) relates to the system's capacity to handle growing data volumes and user demands. By designing flexible and expandable infrastructure, the EDA can accommodate increasing data complexity and analysis requirements, ensuring it remains effective and responsive as it grows.

PROJECT DESIGN

CHAPTER 5

PROJECT DESIGN

5.1 DATA FLOW DIAGRAMS

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.

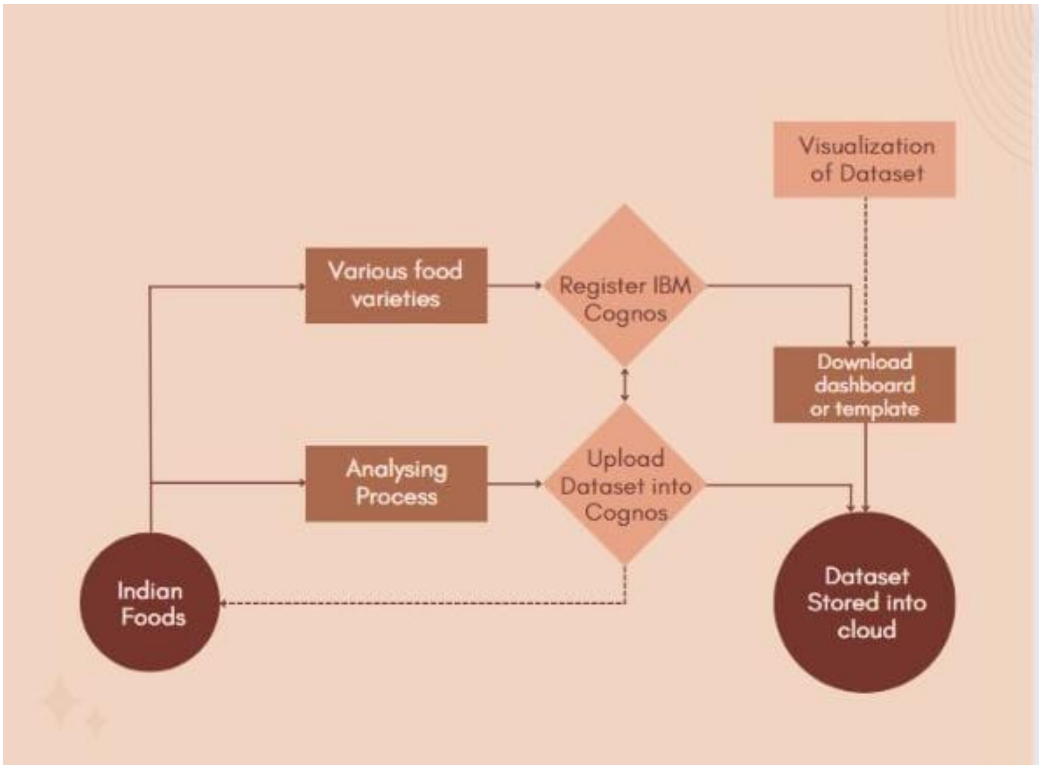


Figure 5.1.1 Data Flow Diagram.

5.2 SOLUTION / TECHNICAL ARCHITECTURE

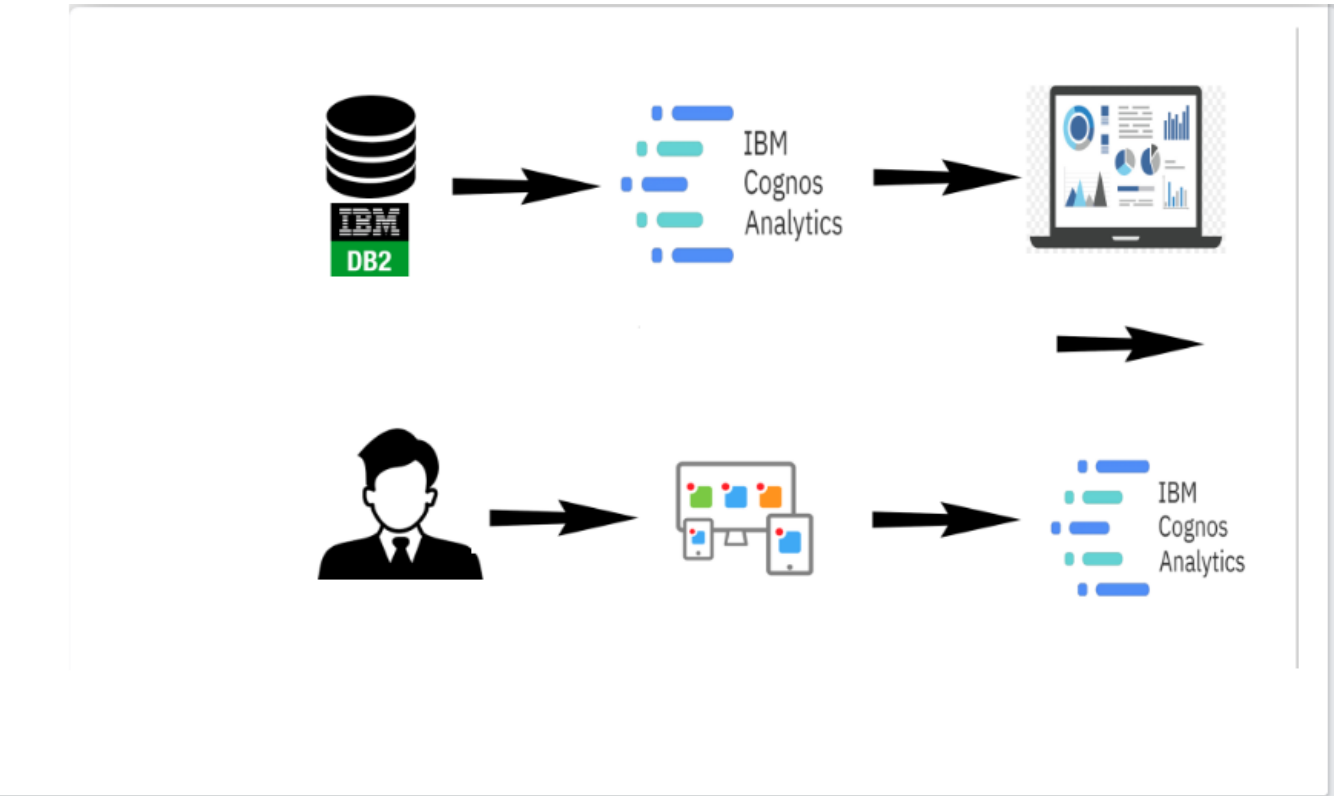


Figure 5.2.1 Solution Architecture Diagram.

5.3 USER STORIES

User story	Functional requirements	Release	User Number story	User Story	Acceptance Criteria	Priority
Data Analyst/Researcher	Data Analysis	Sprint 1	USN-1	As a Data Analyst, I need access to a clean and well-structured dataset of Indian food to conduct exploratory data analysis and uncover valuable insights into the cuisine's regional variations, ingredient popularity, and cooking techniques.	The system provides access to a cleaned and well-preprocessed dataset of Indian food. Data Analysts can perform exploratory data analysis, generate visualizations, and extract insights.	High
Food Enthusiast	Exploration	Sprint 1	USN-2	As a Food Enthusiast, I want to	The platform should provide	High

				access a platform to explore and visualize the diverse world of Indian cuisine, including the regional distribution of dishes, ingredient popularity, and culinary trends, allowing me to expand my culinary knowledge.	user-friendly access to data visualization tools.Users can explore and filter data to view regional dish distribution.The platform offers insights into ingredient popularity in Indian cuisine.	
Restaurant Owner (User Story):	Insights	Sprint 2	USN-3	As a Restaurant Owner specializing in Indian cuisine, I need access to a data analysis tool to gain insights into popular	The system should provide data on regional dish popularity and ingredient preferences. Users can filter data by region and	High

				dishes and ingredients within specific regions of India. This will aid in optimizing my menu and expanding my restaurant's offerings.	dish type to make informed menu decisions.	
Culinary Researcher	Visualization	Sprint 3	USN-4	As a Culinary Researcher, I require access to a platform that allows me to visualize and analyze data related to Indian food. This will help me identify historical and	The system should provide access to a well-structured and clean dataset of Indian food.Culinary Researchers can conduct exploratory data analysis and generate visualizations .The platform allows for the	Medium

				contemporary trends, contributing to my research on Indian culinary heritage.	customization of data visualizations.	
Tourism Promoter	promotion	Sprint 4	USN-5	As a Tourism Promoter, I seek insights into the regional variations in Indian cuisine to enhance my promotional content. I want to use data-driven information to attract food tourists to different Indian states.	The platform should provide detailed insights into the regional variations of Indian cuisine, including data on popular dishes, ingredients, and culinary traditions. Users should be able to access interactive maps and visualizations.	Medium

Indian cuisine Blogger	Visualization	Sprint 4	USN-6	As an Indian Cuisine Blogger, I require a data analysis tool to identify trends and patterns in Indian cooking methods and regional culinary preferences. This will enable me to create engaging and informative content for my readers.	As an Indian Cuisine Blogger, I require a data analysis tool to identify trends and patterns in Indian cooking methods and regional culinary preferences. This will enable me to create engaging and informative content for my readers.	High
Recipe Developer	Innovation	Sprint 3	USN-7	As a Recipe Developer, I want access to data-driven insights on Indian cuisine to	The platform should ensure that Recipe Developers have access to a well-structure	High

				create innovative and region-specific recipes that cater to evolving food preferences.	d dataset of Indian food, allowing them to harness data-driven insights for innovative and region-specific recipe development. Users should be able to easily filter, explore, and export data as needed for their recipe creation process.	
Educational Institution	Integration	Sprint 2	USN-8	As an Educational Institution, I want to use EDA findings to enhance my curriculum on Indian food and culinary	The platform should ensure that educational institutions have access to comprehensive exploratory data analysis	High

				traditions, providing students with comprehensive and up-to-date information.	(EDA) findings and insights related to Indian food, empowering them to enhance their culinary curriculum with up-to-date and data-driven information.	

CODING & SOLUTIONING

CHAPTER 6
CODING & SOLUTIONING

6.1 FEATURE 1

The EDA project encompasses a comprehensive regional analysis of Indian food preferences and consumption patterns. It provides insights into the culinary diversity across India's states and cities, fostering a deeper appreciation for the rich tapestry of regional cuisines. This feature allows businesses to tailor their offerings to specific regional tastes and helps policymakers craft targeted initiatives to support local culinary traditions.

6.2 FEATURE 2

The project offers a unique feature of real-time data integration. It continuously collects and updates data from various sources, including live surveys, social media, and food review platforms. This dynamic approach ensures that the analysis reflects evolving dietary preferences and emerging food trends in real-time. It equips businesses with up-to-date information to adapt their menus, enhancing customer satisfaction and market competitiveness.

RESULT

CHAPTER 7

RESULTS

7.1 PERFORMANCE METRICS

By analyzing the visualization, for an exploratory data analysis (EDA) of Indian food involve assessing data quality, measuring diversity in regional cuisines and ingredients, analyzing ingredient frequency, understanding recipe complexity, delving into the cultural significance of dishes, conducting nutritional assessments, examining regional variations, and tracking user engagement when applicable. These metrics aid in the effective exploration and understanding of the diverse and culturally rich landscape of Indian cuisine.

ADVANTAGES AND DISADVANTAGES

CHAPTER 8
ADVANTAGES AND DISADVANTAGES

8.1ADVANTAGES

- Cultural Understanding: EDA reveals the profound cultural significance of Indian cuisine by examining the historical influences, traditions, and rituals associated with it.
- Flavor Diversity: Indian cuisine is celebrated for its vast flavor palette, achieved through the use of a multitude of spices and ingredients, resulting in an array of unique and satisfying taste experiences.
- Nutrient-Rich: Indian dishes are often a treasure trove of essential nutrients, including vitamins, minerals, and dietary fiber, making them a healthful dining choice
- Vegetarian Options: Indian cuisine boasts a plethora of delectable vegetarian and vegan dishes, catering to individuals with plant-based diets and offering a diverse culinary experience.
- Medicinal Spices: Certain Indian spices, like turmeric, ginger, and garlic, are revered for their potential health benefits, including anti-inflammatory and antioxidant properties.
- Balanced Flavors: Indian cooking skillfully combines the five fundamental taste sensations—sweet, sour, salty, bitter, and umami—yielding a harmonious and well-rounded gastronomic experience.
- Global Appeal: Indian food transcends borders and is enjoyed worldwide, allowing individuals from various cultural backgrounds to relish its diverse and exotic culinary delights.

8.2 DISADVANTAGES

- Correlation Analysis: Explore potential correlations between specific disadvantages and demographic factors, such as age, gender, or cultural background. Understanding demographic patterns can provide valuable insights into the context of these disadvantages.
- Comparison: Compare disadvantages based on specific criteria like the region (North Indian, South Indian, etc.), type of Indian cuisine (vegetarian, non-vegetarian), or dining context (restaurant vs. home-cooked). This comparison provides insights into contextual variations.
- Sentiment Analysis: Apply sentiment analysis to assess whether each disadvantage is perceived positively, negatively, or neutrally. This offers an overall sentiment perspective associated with the mentioned drawbacks.
- Data Visualization: Create visual representations, like bar charts or word clouds, to visually depict the most prevalent disadvantages. These visualizations make it easier to identify dominant themes.
- Lack of Variety in Rural Areas: In rural parts of India, access to a diverse range of food options may be limited. This can be a disadvantage for those who are used to a wide variety of cuisines and flavors, as the local food choices may be more limited.
- Cultural Sensitivity: Some aspects of Indian food may not align with the dietary or cultural preferences of people from different backgrounds. This can lead to cultural insensitivity or misunderstandings, particularly when dining in a multicultural context or when hosting guests with diverse dietary needs.

CONCLUSION

CHAPTER 9

CONCLUSION

In conclusion, Exploratory Data Analysis (EDA) of Indian cuisine reveals a captivating culinary landscape, defined by its remarkable regional diversity, vibrant flavors, and cultural significance. From the aromatic spices that form the foundation of countless dishes to the myriad vegetarian and non-vegetarian options. Indian food is a testament to the country's rich heritage. It encompasses an array of bread and grain-based staples, offers delectable street food and snacks, and plays a vital role in cultural celebrations. In sum, EDA highlights the intricate tapestry of Indian food, inviting us to savor its complexity and celebrate its diverse offerings.

FUTURE SCOPE

CHAPTER 10

FUTURE SCOPE

The future scope of exploring Indian cuisine through data analysis holds great promise. As technology advances, data-driven insights can further enhance our understanding of this rich culinary tradition. Furthermore, with the ongoing global interest in diverse and sustainable foods, data analysis can contribute to the localization and adaptation of Indian cuisine in various countries, fostering a deeper appreciation for its flavors and traditions. Collaboration between data scientists, chefs, and food enthusiasts could lead to innovative culinary experiences, perhaps through the creation of virtual cooking classes and immersive food tours using augmented reality and virtual reality technologies. The future of exploring Indian food through data promises a fusion of tradition and innovation, offering exciting opportunities to appreciate, understand, and enjoy this diverse cuisine in new and immersive ways.

APPENDIX

CHAPTER 11

APPENDIX

A.1 SOURCE CODE

app.py

```
from flask import Flask, render template, redirect, url_for
app = Flask(_name_)
@app. route ('/', methods=["GET", "POST"])
def index ():
    return render_template('index.html')
@app. route ('/dashboard', methods=["GET", "POST"])
def dashboard ():
    return render template('dashboard.html')
@app. route('/report', methods=["GET", "POST"])
def report ():
    return render_template('report.html')
@app. route('/story', methods=["GET", "POST"])
def story ():
    return render_template('story.html')
# Run server
if _name_ == "_main_":
    app.run(debug=True)
```

index.html

```
<li><a href ="{{url_for('dashboard') }}">Dashboard</a></li>
<li><a href ="{{url_for('report') }}">report</a></li>
<li><a href ="{{url_for('story') }}">story</a></li>
```

dashboard.html

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width,
initial-scale=1.0">
    <title>Indian Food</title>
</head>
<body>
    <h1>Indian Food EDA</h1>
   <iframe
src="https://us3.ca.analytics.ibm.com/bi/?perspective=dashboard&a
mp;pathRef=.my_folders%2FNew%2Bdashboard%2BIndian%2Bfo
od%2Beda&amp;closeWindowOnLastView=true&amp;ui_appbar=f
alse&amp;ui_navbar=false&amp;shareMode=embedded&amp;actio
n=view&amp;mode=dashboard" width="320" height="200"
frameborder="0" gesture="media" allow="encrypted-media"
allowfullscreen=""></iframe>
    </body>
</html>
```

story.html

```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta http-equiv="X-UA-Compatible" content="IE=edge">
   <meta name="viewport" content="width=device-width,
initial-scale=1.0">
   <title>Indian Food</title>
</head>
<body>
   <h1>Story forVEG and NONVEG</h1>
   <iframe
src="https://us3.ca.analytics.ibm.com/bi/?perspective=story&amp;amp;path
Ref=.my_folders%2FNew%2Bstory%2BIndian%2Bfood&amp;amp;close
WindowOnLastView=true&amp;amp;ui_appbar=false&amp;amp;ui_navbar=fals
e&amp;amp;shareMode=embedded&amp;amp;action=view&amp;amp;mode=dashbo
ard" width="320" height="200" frameborder="0" gesture="media"
allow="encrypted-media" allowfullscreen=""></iframe>
</body>
</html>
```

report.html

```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta http-equiv="X-UA-Compatible" content="IE=edge">
            <meta name="viewport" content="width=device-width,
initial-scale=1.0">
   <title>Indian Food</title>
</head>
<body>
   <h1>Report for Indian Food Eda</h1>
                                                          <iframe
src="https://us3.ca.analytics.ibm.com/bi/?pathRef=.my_folders%2FNew
%2Breport%2BIndian%2Bfood%2Beda&amp;closeWindowOnLastVie
w=true&amp;ui_appbar=false&amp;ui_navbar=false&amp;shareMode=
embedded" width="320" height="200" frameborder="0"
gesture="media" allow="encrypted-media"
allowfullscreen=""></iframe>
</body>
</html>
```

A.2 SCREENSHOTS

A.2.1 VISUALIZATION

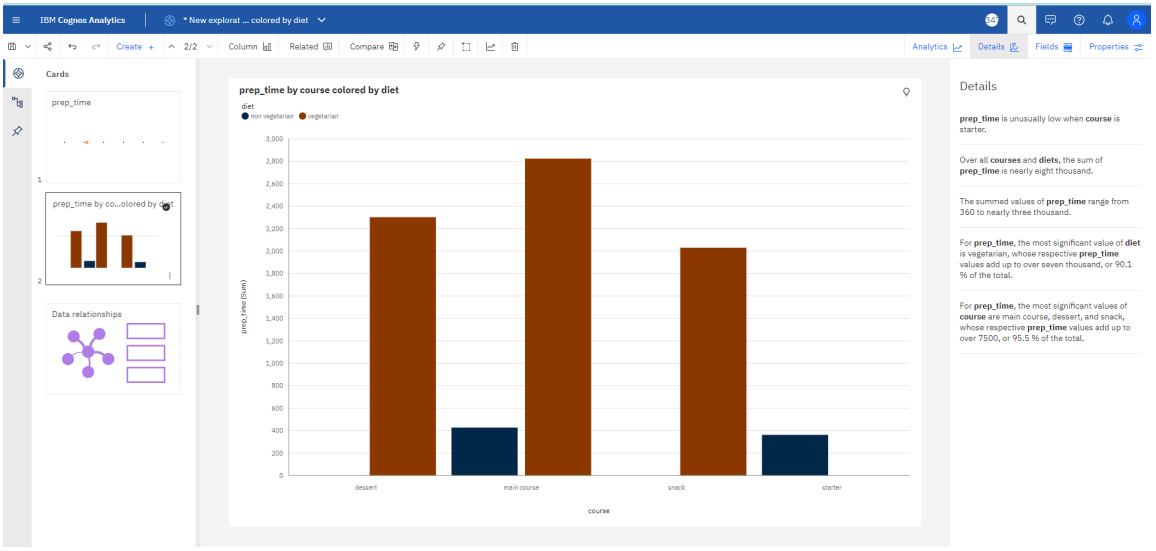


Fig A.2.2.1 Prep_time by course colored by diet

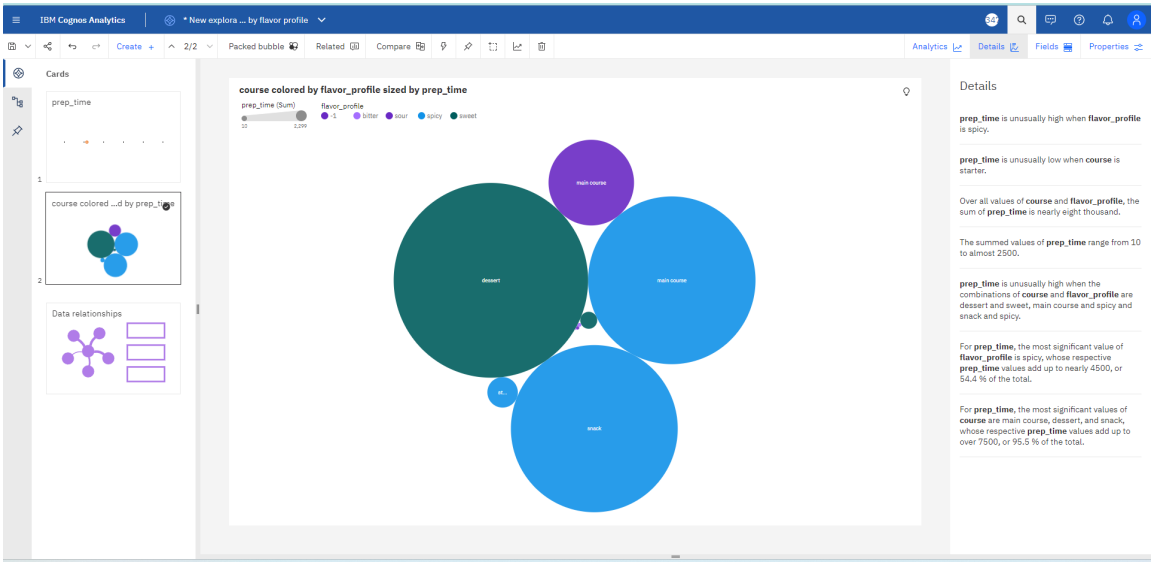


Fig A.2.2.2 course colored by flavor_profile sized by prep_time

A.2.2 DASHBOARD

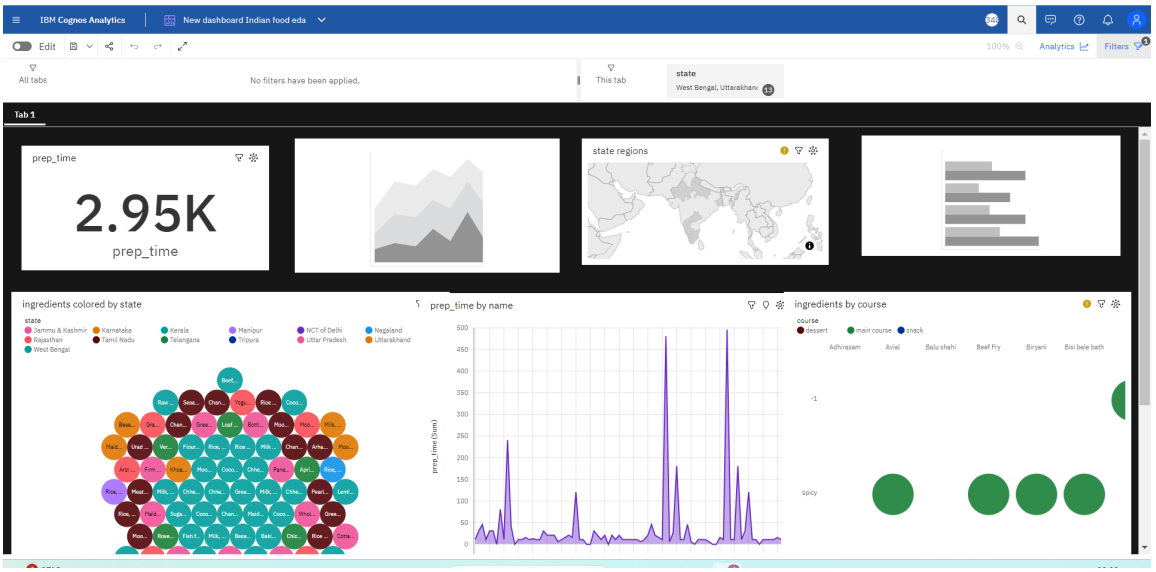
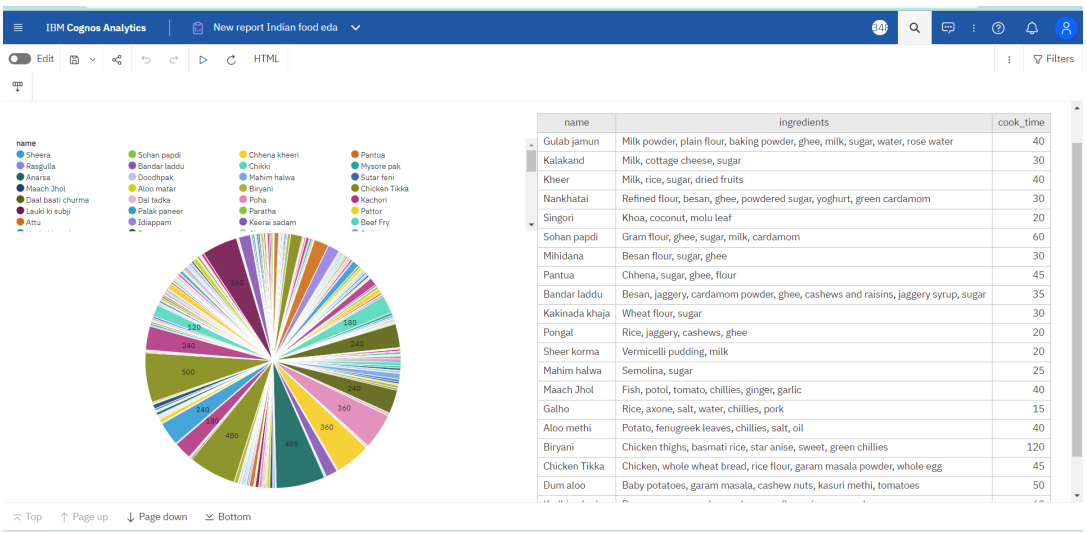


Fig A.2.2.1 DIETS BY NAME AND STATE

A.2.3 REPORT



name	ingredients	cook_time
Gulab jamun	Milk powder, plain flour, baking powder, ghee, milk, sugar, water, rose water	40
Kalakand	Milk, cottage cheese, sugar	30
Kheer	Milk, rice, sugar, dried fruits	40
Nankhatai	Refined flour, besan, ghee, powdered sugar, yoghurt, green cardamom	30
Singori	Khoa, coconut, molu leaf	20
Sohan papdi	Gram flour, ghee, sugar, milk, cardamom	60
Mihidana	Besan flour, sugar, ghee	30
Pantua	Chhena, sugar, ghee, flour	45
Bandar laddu	Besan, jaggery, cardamom powder, ghee, cashews and raisins, jaggery syrup, sugar	35
Kakinada khaja	Wheat flour, sugar	30
Pongal	Rice, jaggery, cashews, ghee	20
Sheer korma	Vermicelli pudding, milk	20
Mahim halwa	Semolina, sugar	25
Maach Jhol	Fish, potol, tomato, chillies, ginger, garlic	40
Galho	Rice, axone, salt, water, chillies, pork	15
Aloo methi	Potato, fenugreek leaves, chillies, salt, oil	40
Biryani	Chicken thighs, basmati rice, star anise, sweet, green chillies	120
Chicken Tikka	Chicken, whole wheat bread, rice flour, garam masala powder, whole egg	45
Dum aloo	Baby potatoes, garam masala, cashew nuts, kasuri methi, tomatoes	50

Fig A.2.3.1 NAME,INGREDIENTS BY COOKTIME

A.2.4 STORY

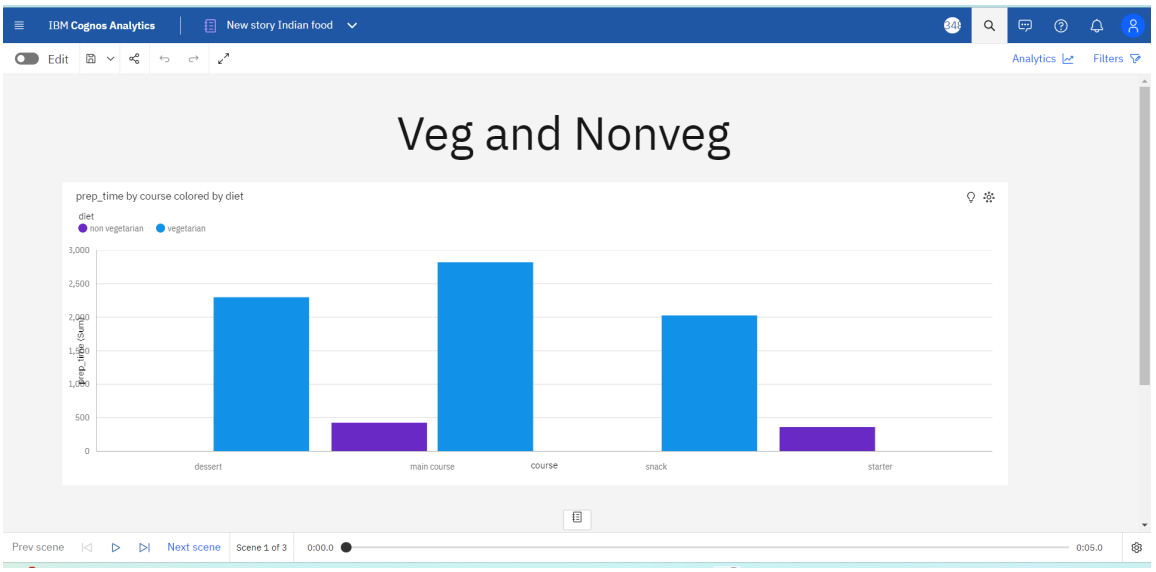


Fig A.2.4.1 VEG AND NONVEG ANALYSIS

GITHUB & PROJECT DEMO LINK

GITHUB LINK:

https://github.com/trishaMU05/Naan-Mudhalvan-Data-Analysis-NM2023TMID01826

PROJECT DEMO LINK:

https://drive.google.com/file/d/1S5rwYNpjvYKWU08Bpjx82JWfXHyEV_jS/view?usp=share_link

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[2] Pearl Ahuja, Diksha Solanki, Amita Goel, Nidhi Sengar, Vasudha Bahl :DIETARY ASSESSMENT AND INDIAN CUISINE ANALYSIS USING KNN AND EDA

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