ANALYSING THE PERFORMANCE & EFFICIENCY OF THE INDIAN FOOD EDA USING DATA VISUALIZATION

DATA ANALYTICS

NAAN MUDHALVAN

PROJECT REPORT

Submitted By

ARUNKUMAR P	**611220104008**
BHARATH S	**611220104022**
DHIVYA K	**611220104040**
INDHUJA P	**611220104057**

in partial fulfilment 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 **"ANALYSING THE PERFORMANCE & EFFICIENCY OF THE INDIAN FOOD EDA USING DATA VISUALIZATION"** is the bonafide work of **"ARUNKUMAR P (611220104008), BHARATH S (611220104022), DHIVYA K (611220104040), INDHUJA P (611220104057)"** who carried out the project work under my supervision.

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ACKNOWLEDGEMENT

At the outset, we express our heartfelt gratitude to **GOD,** who has been our strength to bring this project to light.

At this pleasing moment of having successfully completed our project, we wish to convey our sincere thanks and gratitude to our beloved president **Mr. C. Balakrishnan,** who has provided all the facilities to us.

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ABSTRACT

"ANALYSING THE PERFORMANCE & EFFICIENCY OF THE INDIAN FOOD EDA USING DATA VISUALIZATION" is a data visualization project that aims to provide a visually compelling and insightful exploration of the rich and diverse world of Indian food. Indian cuisine is renowned for its complexity, regional variations, and cultural significance. Through data visualization, this project seeks to present a dynamic and informative perspective on the culinary landscape of India.

India is a vast country with a wide range of regional cuisines, each characterized by unique flavors and ingredients. This project will utilize data visualization techniques to depict the culinary diversity across India, showcasing prominent dishes, ingredients, and regional specialties.

Indian cuisine is celebrated for its extensive use of spices, herbs, and ingredients. Data visualization will offer a comprehensive view of the most commonly used ingredients, their popularity in different regions, and their roles in various dishes.

By analyzing recipe data, this project will reveal trends in the popularity of Indian dishes over time, enabling viewers to see how certain dishes have evolved or gained international recognition.

LIST OF FIGURES

LIST OF ABBREVIATIONS

ABBREVIATION	EXPANSION
EDA	EXPLORATORY DATA ANALYSIS
FR	FUNCTIONAL REQUIREMENTS
NFR	NON-FUNCTIONAL REQUIREMENTS
DA	DATA ANALYTICS

INTRODUCTION

CHAPTER 1

INTRODUCTION

1.1 PROJECT OVERVIEW

India is well known for its wide range of delectable culinary customs, which are a reflection of its dynamic culture, fascinating history, and unique terrain. Our India, Exploring the flavors of India, explores the geographical variances, ingredients, cooking methods, and cultural significance of Indian food in an effort to highlight its variety.

This project seeks to explore and document the wide array of dishes, cooking styles, and ingredients that make up Indian cuisine. We'll be focusing on both vegetarian and non-vegetarian options to showcase the diversity within Indian food.
India's cuisine is not uniform; it varies significantly from one region to another. We will explore the distinctive flavors of different Indian states, highlighting the iconic dishes and ingredients that define them.

We will investigate the unique cooking methods and techniques used in Indian kitchens and how they contribute to the distinct flavors of Indian dishes. Food in India is deeply intertwined with culture, traditions, and rituals. Our project will delve into the cultural significance of food in various regions and the role it plays in festivals, celebrations, and daily life.

1.2 PURPOSE

Indian food serves a variety of purposes, extending beyond simple sustenance. The purpose of Indian food is multifaceted and deeply intertwined with the country's culture, traditions, and history. The primary purpose of Indian food, like any cuisine, is to provide nourishment and sustenance to individuals. It offers a balanced combination of carbohydrates, proteins, fats, vitamins, and minerals necessary for the body's well-being.

Indian cuisine often incorporates herbs and spices that are believed to have medicinal properties. For example, turmeric is known for its anti-inflammatory properties, and ginger is used to aid digestion. The ancient system of Ayurveda recognizes the healing potential of different ingredients, and Indian cooking incorporates this knowledge.

Many Indian dishes feature plant-based and vegetarian options, making it a sustainable choice for those concerned about the environment. Lentils, vegetables, and grains are staples in Indian cuisine, reducing the carbon footprint associated with meat consumption. Indian food has a global presence and has influenced cuisines worldwide. Its purpose extends to introducing people from different cultures to a diverse range of dishes and flavors, contributing to global culinary diversity.

The food industry in India has a substantial economic impact, providing employment and income for millions of people. It includes various sectors, from agriculture and food production to restaurants and hospitality.

LITERATURE SURVEY

CHAPTER 2

LITERATURE SURVEY

Exploratory Data Analysis (EDA) has become an essential tool in understanding and extracting insights from large datasets. In the context of Indian food, EDA plays a crucial role in unraveling the complexities of this diverse and rich culinary heritage. This literature review explores existing research and studies that have employed EDA techniques to analyze Indian food datasets, shedding light on the ingredients, regional variations, popularity, and nutritional aspects of Indian cuisine.

2.1 EXPLORATORY DATA ANALYSIS OF INDIAN CUISINE INGREDIENTS BY GUPTA ET AL. Data Analysis of Indian Cuisine Ingredients" by Gupta et al. (2018)

This study focuses on analyzing a dataset of Indian cuisine ingredients using EDA techniques. The authors explore the frequency and distribution of ingredients, identifying the most commonly used spices, herbs, and vegetables. They also investigate the regional variations in ingredient preferences, highlighting the distinct flavor profiles across different Indian states.

2.2 Exploring Regional Variations in Indian Food: An EDA Approach by Sharma and Jain (2019)

This research delves into regional variations in Indian food by employing EDA techniques on a dataset comprising recipes from different states.

2.3 EDA of Popular Indian Dishes on Social media by Patel and Shah (2020)

This study utilizes EDA to analyze the popularity of Indian dishes on social media platforms. The authors collect data from various social media sources and explore metrics such as user ratings, reviews, and mentions. They identify popular dishes, trends, and emerging flavors, providing insights into the changing preferences of consumers.

2.4 Nutritional Analysis of Indian Food: An EDA Perspective by Chatterjee and Saha (2021)

Focusing on the nutritional aspects of Indian cuisine, this research conducts EDA on a dataset comprising nutritional information of Indian dishes. The authors analyze the calorie content, macronutrient distribution, and common ingredients contributing to specific nutritional values. They highlight the balance and diversity of Indian food, providing valuable insights for health-conscious individuals.

2.5 EDA and Visualization of Indian Street Food: A Data-Driven Perspective by Das and Mohan (2022)

This study employs EDA and visualization techniques to analyze data on Indian street food. The authors explore the regional variations, popularity, and ingredients of street food across different Indian cities. Through visualizations, they highlight the street food culture and its unique culinary offerings, uncovering hidden gems and trends.

IDEATION &PROPOSED SOLUTION

CHAPTER 3

IDEATION &PROPOSED SOLUTION

3.1 PROBLEM STATEMENT DEFINITION

I am (Customer)	I'm trying to	But	Because	Which makes me feel
Foodie	Order a food through mobile phone	1.It shows only limited menu visibility 2.It is difficult in technical issues 3.It is difficult in Delivery time and address accuracy	1.It feels difficulty in some app may have limited menu item and option available for certain restaurant and I can be difficult to ordering the food. 2.It feels difficulty in technical related problem like crashes, slow loading or payment failure can be frustrating and difficult for foodies to order the food and payment	Dissatisfied

			process. 3.It does not provide the food at the estimated time and leading to delay in receiving the food and also ensuring the difficulty in delivery address accuracy.	
Foodie	Buying a food through shop	1.It takes long time stand thereby to get food. 2.It is difficult in carrying heavy items and transportation.	1. Foodie may face challengers in long queues. Having to wait in long line at the checkout or counter can be time consuming 2. Carrying heavy or bulky items to your vehicle and home can be physically challenging, especially if you don't have transportation	Aggrived

3.2 EMPATHY MAP CANVAS

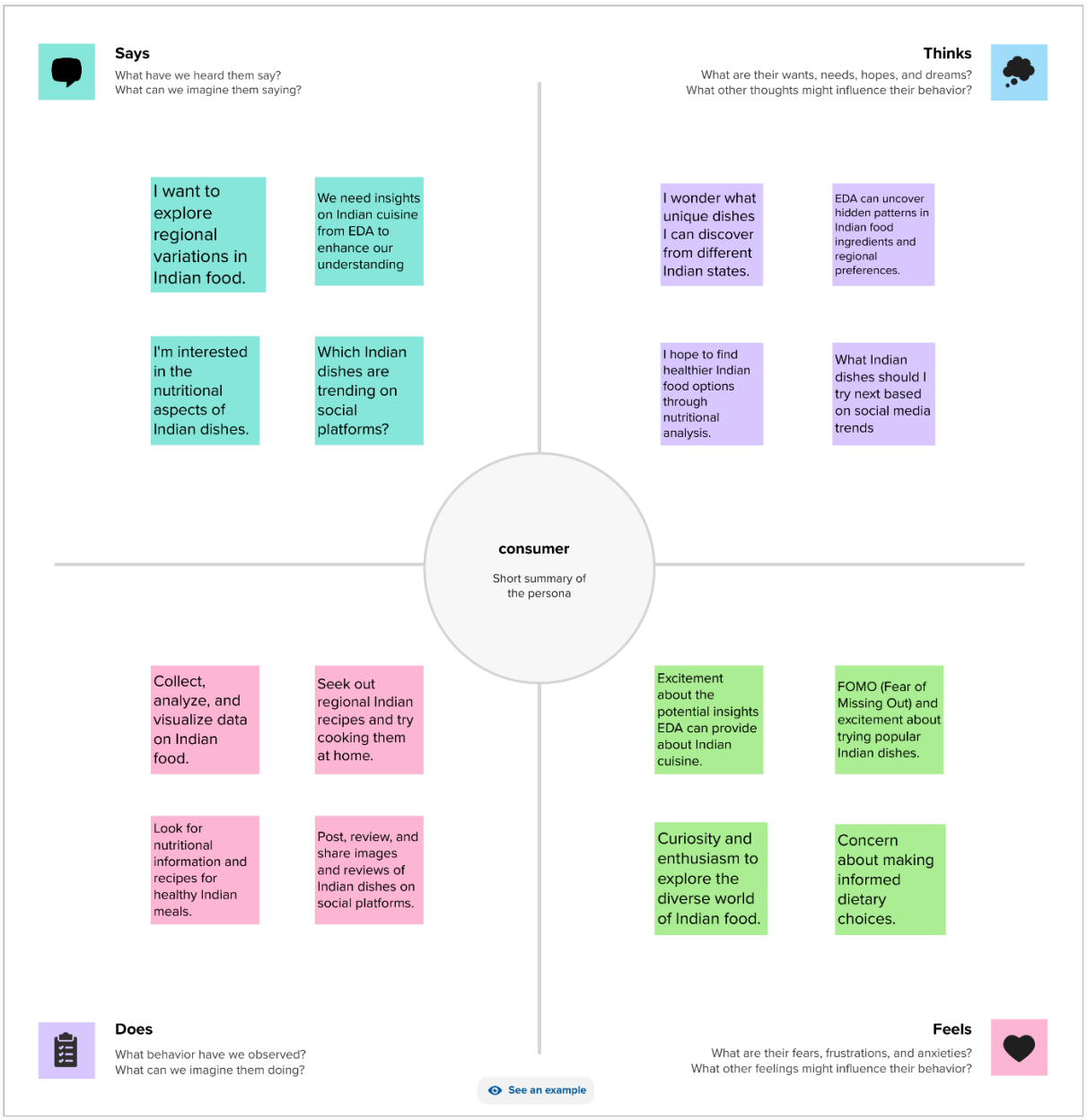


Fig 3.2.1 Empathy Map Canvas

3.3 IDEATION & BRAINSTORMING

Step-1: Team Gathering, Collaboration and Select the Problem Statement

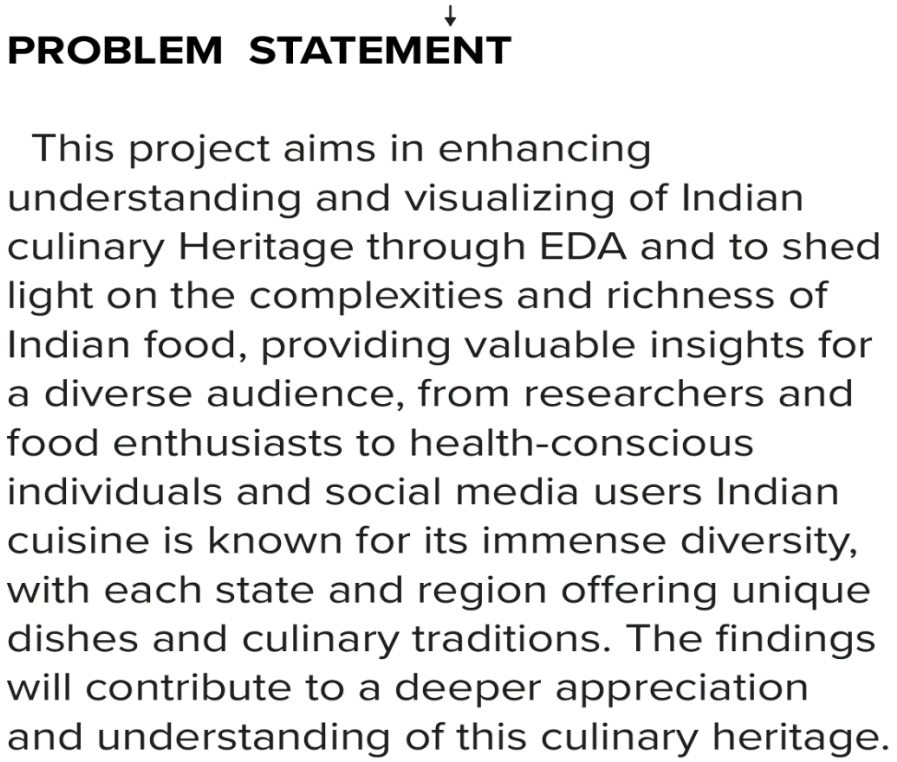


Fig 3.3.1 Problem Statement

Step-2: Brainstorm, Idea Listing and Grouping

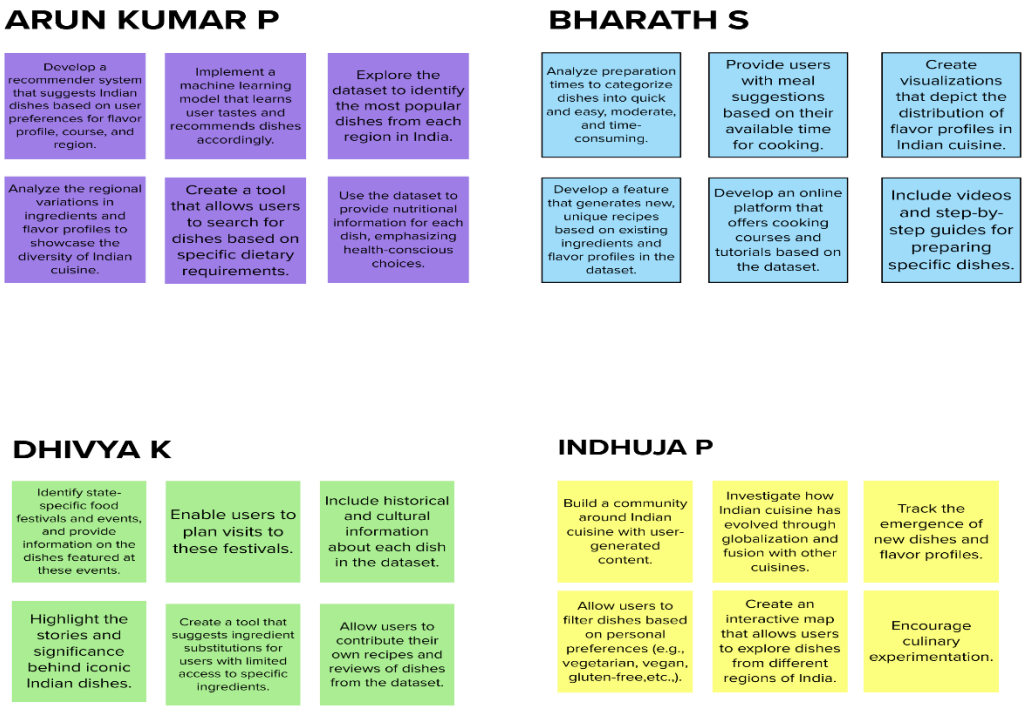
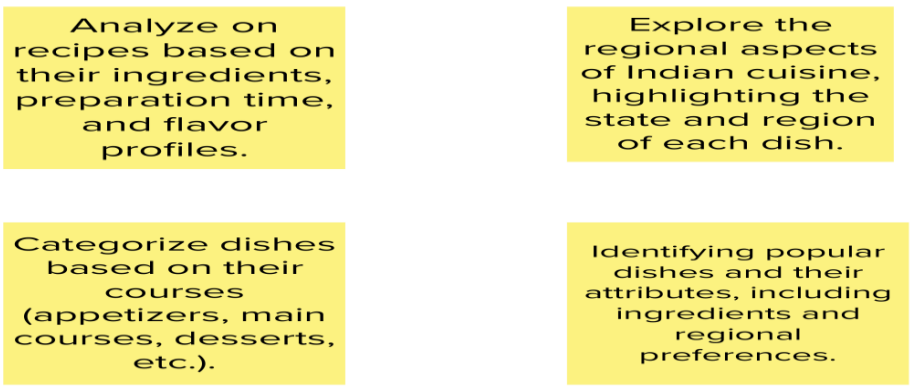


Fig 3.3.2 Brainstorming



Step-3: Idea Prioritization

Fig 3.3.3 Idea Prioritization

3.4 PROPOSED SOLUTION

S. No	Parameter	Description
1.	Problem Statement (Problem to be solved)	The problem statement is to analyze the Indian Food using data analytics with tableau. A website needs tobe built which is integrated with python,IBM Cognos, IBM DB2. The solution should satisfy the following user requirements: • User friendly interface • Provide detailed information. • Day to Day prices and offers update. • Predictive analysis
2.	Idea / Solution description	The Indian Food is a user-friendly website that allows users to search and compare prices and offers for flights, hotels, vacation rentals provided by various travel aggregators. The website contains extra features for customer such as review, ratings, and images to assist customers in making informed decisions. We can analyze these details by python and IBM Cognos.
3.	Novelty / Uniqueness	• Evaluate the breadth and depth of food offerings. • Reviews and Ratings.

		• Day to Day Updates. • Search, Filter and Compare options. • Cancellations and refunds.
4.	Social Impact / Customer Satisfaction	EDA can lead to the development of healthier Indian food options. By analyzing nutritional data, consumers can make informed choices, potentially leading to better health outcomes. Data analysis can pinpoint allergens in recipes, making it easier for people with allergies to navigate menus and find suitable dishes.
5.	Business Model (Revenue Model)	Offer access to a comprehensive database of Indian food data, recipes, nutritional information, and insights to subscribers. Create and monetize content related to Indian food EDA, such as eBooks, reports, or video tutorials. We can sell these materials to individuals or businesses seeking to learn about Indian cuisine and food analysis.
6.	Scalability of the Solution	The Utilize cloud computing platforms such as AWS, Azure, or Google Cloud to take advantage of scalable infrastructure resources These platforms provide on-demand scalability and flexibility to accommodate growing data and user loads.

REQUIREMENT ANALYSIS

CHAPTER 4

REQUIREMENT ANALYSIS

4.1 FUNCTIONAL REQUIREMENTS

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through Form Registration through Website Registration through Gmail
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP Confirmation via Phone Call Confirmation via Social Media Integration
FR-3	User Dashboard	Evaluate Services and Features Pricing and Deals Analysis View User History and Ratings
FR-4	User profile and Preferences	Create and manage their profile. Allow users to change their privacy preferences and profile information as necessary.
FR-5	Output Generation	Report Generation Content Generation Itinerary Generation Visual Representation

4.2 NON- FUNCTIONAL REQUIREMENTS

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	User-friendly Interface to facilitate the user with easy processing. Model provides Analyze and Compare Model provides Data Gathering Model provides Evaluation Criteria Model provides Visual Representation of Prediction
NFR-2	Security	Authentication-User can have his/her own private dashboard to have secured access
NFR-3	Reliability	The model can run numerous samples simultaneously and handle massive amounts of data
NFR-4	Performance	As the model is a combination of python programming, the accuracy is high
NFR-5	Availability	The website is portable and mobile-responsive as well. To run on any device, it simply needs the most minimum requirements

NFR-6	Scalability	It can be extended further to provide API which can be used by third party organizations such as Logistics companies, etc.
NFR-7	Compliance	It makes sure that all legal criteria are met, and this includes food industry rules as well as payment card industry standards

PROJECT DESIGN

CHAPTER 5

PROJECT DESIGN

5.1 DATA FLOW DIAGRAMS

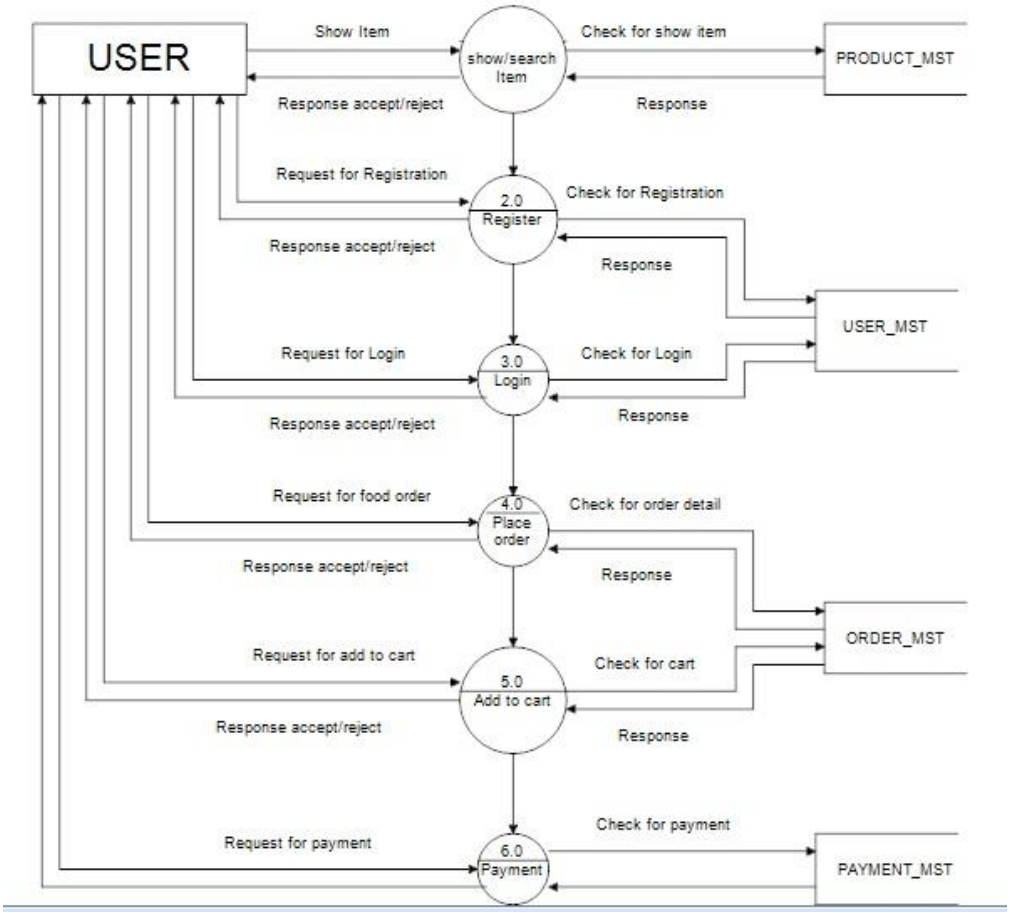


Fig 5.1 Data Flow Diagram of online food registration

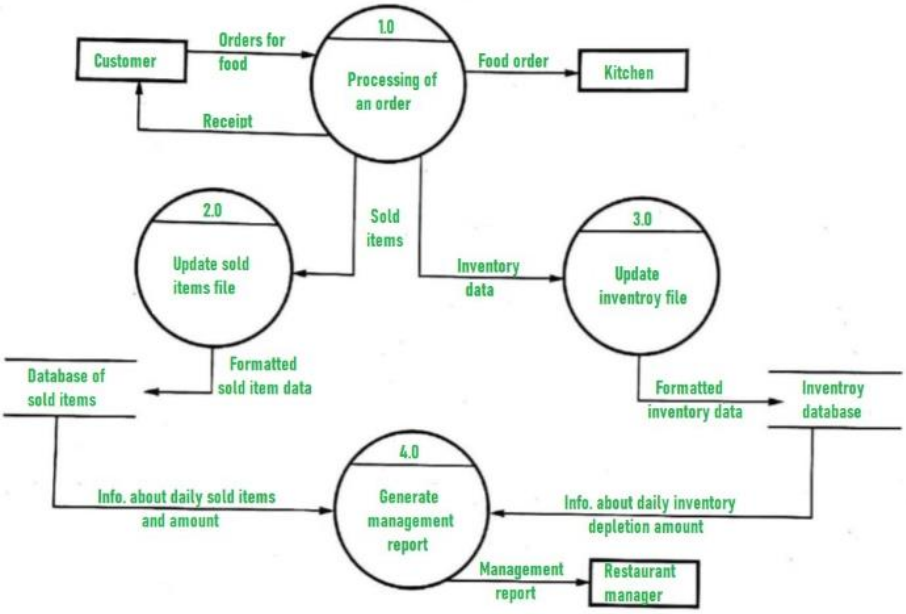


Fig 5.1.2 Data Flow Diagram of offline food registration

5.2 SOLUTION AND TECHNICAL ARCHITECTURE

5.2.1 Solution Architecture

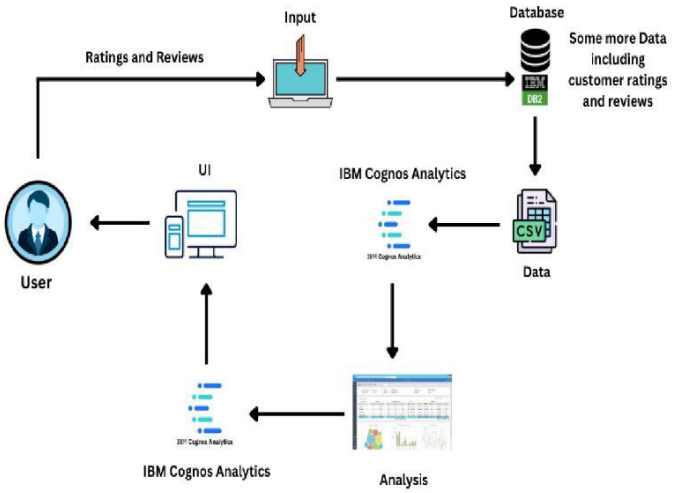


Fig 5.2.1 Solution Architecture of Indian Food

5.2.2 Technical Architecture

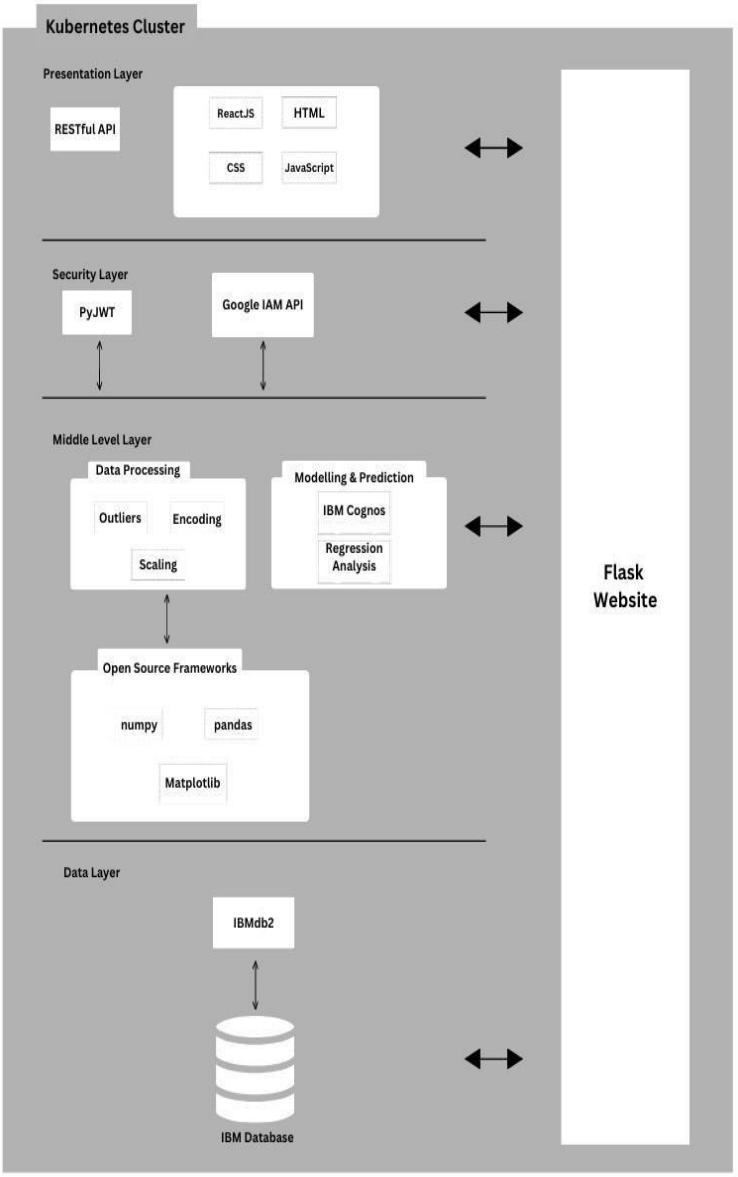


Fig 5.2.2 Technical Architecture of Indian food

5.3 USER STORIES

User Type	Functional Requirement (Epic)	User Story Number	User Story /Task	Acceptance criteria	Priority	Release
Customer	Registration/ Login	USN-1	I can login to the dashboard through authentication.	I can access the dashboard	High	Sprint-3
	Dashboard	USN-2	Once, I enter the dashboard, I can enter my personal details	I can view the package details	High	Sprint-1
		USN-3	As a customer I can select the traveling packages	I can select traveling agencies	Medium	Sprint-2
		USN-4	After considering the ratings of the traveling agencies, I canstart the booking process	I can enter the transportation details	High	Sprint-1
		USN-5	I can view the hotel profiles	I can book the hotel as	Medium	Sprint-1

			near the destination place	per my convenience		
Admin		USN-6	Once, I completed all the process I can move to the booking confirmation	Admin confirms the booking transaction	Medium	Sprint-1,2,3,4
Customer	Ratings	USN-7	As a customer, after booking confirmation I can give ratings about the user experience.	Ratings and customer booking details are stored in a data base by the admin	Low	Sprint-4
Developer		USN-8	I can access the dashboard and view the ratings from the customer	Package details, travel agencies, hotel profilesare updated according to the ratings	Medium	Sprint-4

		USN-9	As a developer, I can update the package details & ratings to the data base and make the data	I can request access for data base from the admin and update the data as soonas possible	High	Sprint-4

CODING & SOLUTIONING

CHAPTER 6

CODING & SOLUTIONING

6.1 FEATURE-1

Dashboard

```
<html>
<head>
   <body>
      <section id="dashboard" class="services">
      <div class="container" data-aos="fade-up">
      <div class="section-title">
         <h2>Dashboard</h2>
      </div>
<iframe
src="https://us3.ca.analytics.ibm.com/bi/?perspective=dashboard&amp;pathRef=
.my_folders%2FIndian_food-%2Bdashboard&amp;closeWindowOnLastView=true
&amp;ui_appbar=false&amp;ui_navbar=false&amp;shareMode=embedded&amp;a
ction=view&amp;mode=dashboard" width="1160" height="900" frameborder="0"
gesture="media" allow="encrypted-media" allowfullscreen="">
</iframe>
      </div>
   </section>
  </body>
</html>
```

6.2 FEATURE-2

Report

```
<html>
<head>
   <section id="Report" class="services">
      <div class="container" data-aos="fade-up">
      <div class="section-title">
      </div>
      <h2>Report</h2>
<iframe
src="https://us3.ca.analytics.ibm.com/bi/?pathRef=.my_folders%2FIndian_Fo
od- report&amp;closeWindowOnLastView=true&amp;ui_appbar=false
&amp;ui_navbar=false&amp;shareMode=embedded" width="1200"
height="1200" frameborder="0" gesture="media" allow="encrypted-media"
allowfullscreen="">
</iframe>
      </div>
   </section>
</html>
```

6.3 FEATURE-3

Story

```
<html>
<head>
   <section id="Story" class="services">
      <div class="container" data-aos="fade-up">
      <div class="section-title">
      </div>
      <h2>Story</h2>
   <iframe
src="https://us3.ca.analytics.ibm.com/bi/?perspective=story&amp;pathRef=.my_f
olders%2FIndian_Food-story&amp;closeWindowOnLastView=true&amp;
ui_appbar=false&amp;ui_navbar=false&amp;shareMode=embedded&amp;action
=view&amp;mode=dashboard" width="1200" height="1200" frameborder="0"
gesture="media" allow="encrypted-media" allowfullscreen=""></iframe>
      </div>
   </section>
</html>
```

6.4 DATABASE SCHEMA

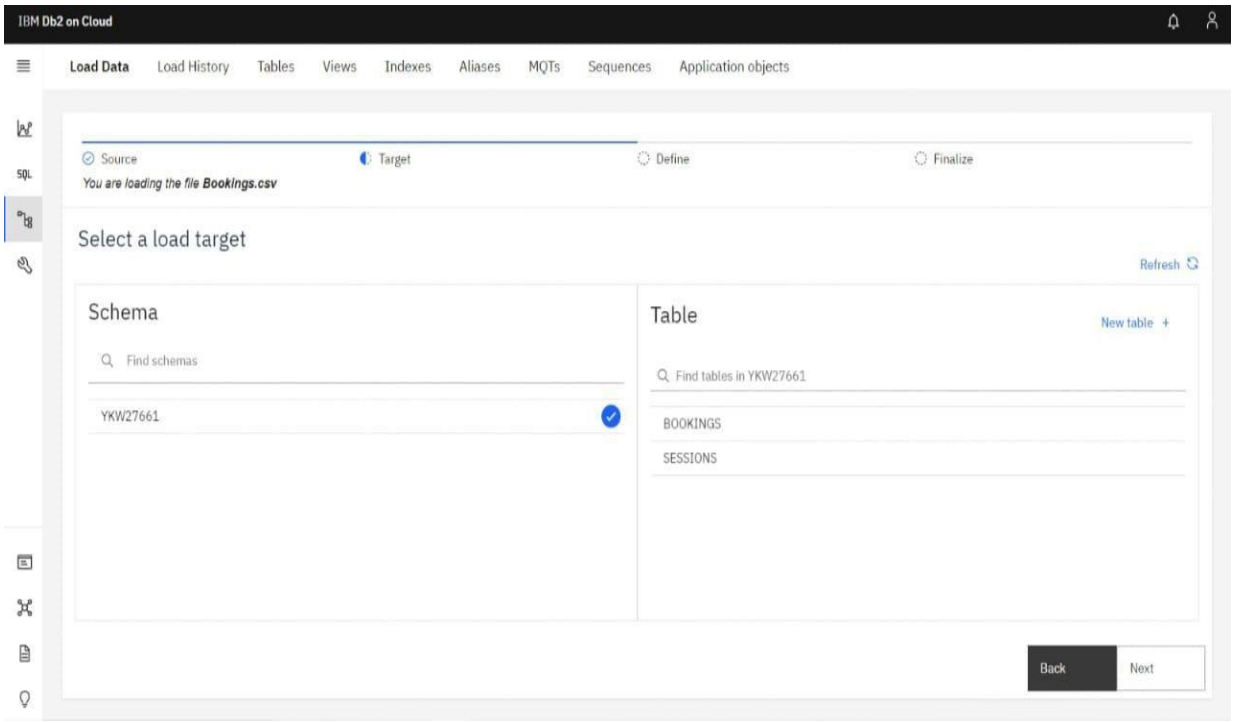


Fig 6.4 Database Schema

RESULTS

CHAPTER 7

RESULTS

7.1 PERFORMANCE METRICES

1.Dashboard design

No of Tabs: 3

No of Visualisation:13

2.Data Responsiveness

Data Responsiveness: YES

3.Utilization of Data Filters

Utilization of Data Filters: YES

No Of Data Filters Used:3

4.Effective User Story

No of Scene Added:2

7.1.1 Utilization of Data filters

Dashboard

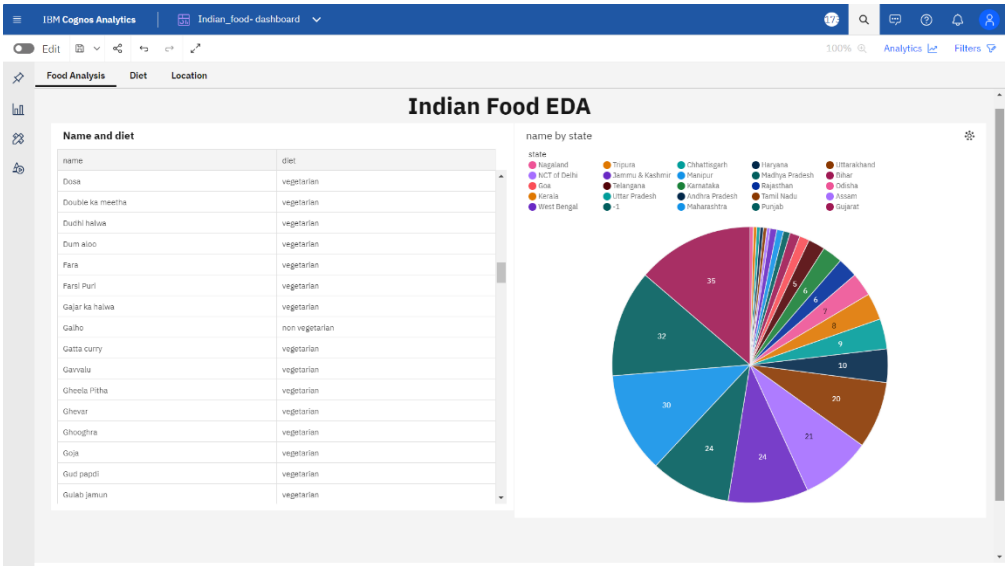


Fig 7.1.2.1 Dashboard of Indian Food Eda.

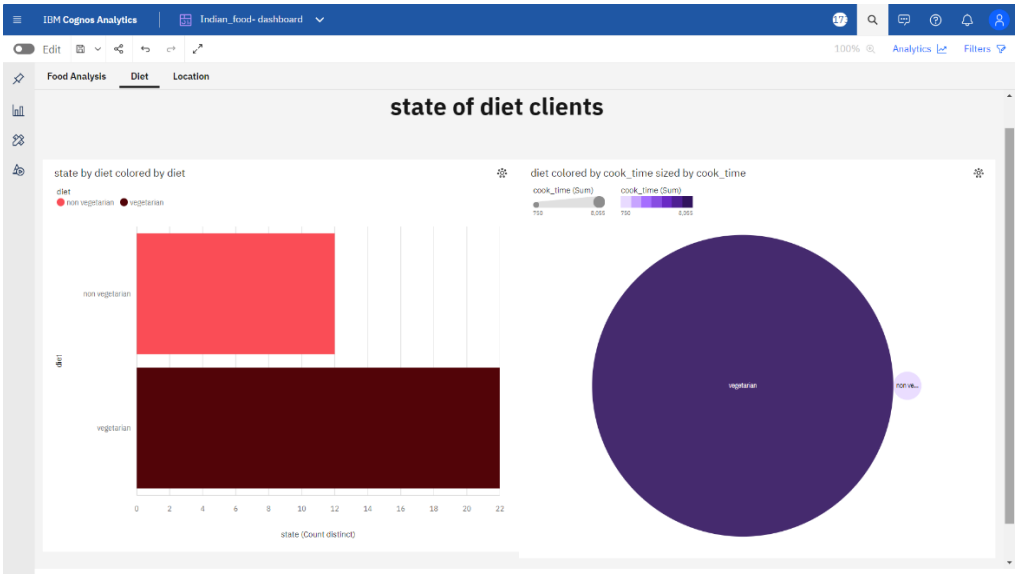


Fig 7.1.2.2 Dashboard of Indian Food Eda.

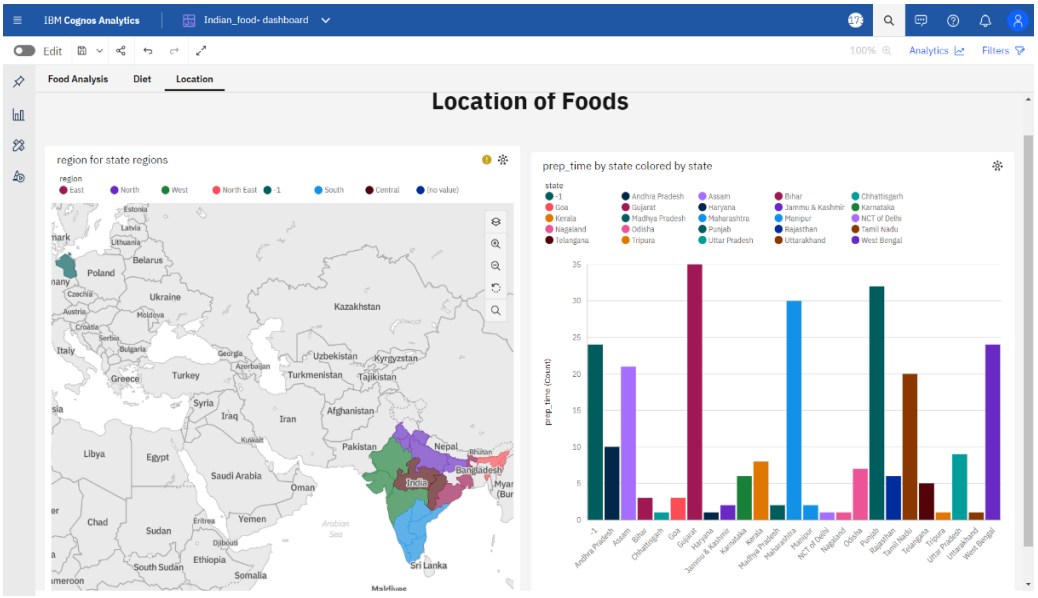


Fig 7.1.2.3 Dashboard of Indian Food Eda.

Story

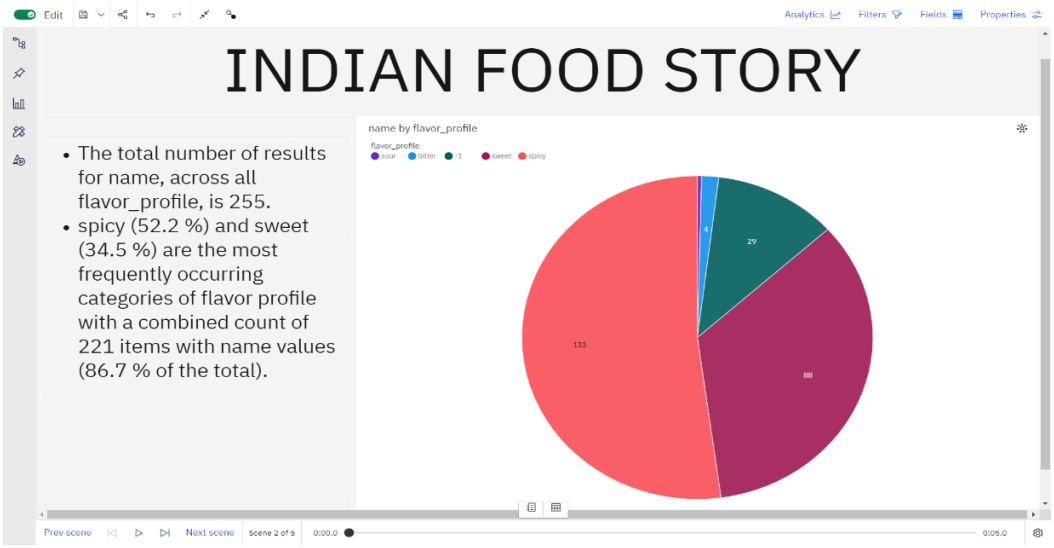


Fig 7.1.2.4 Story of Indian Food Eda.

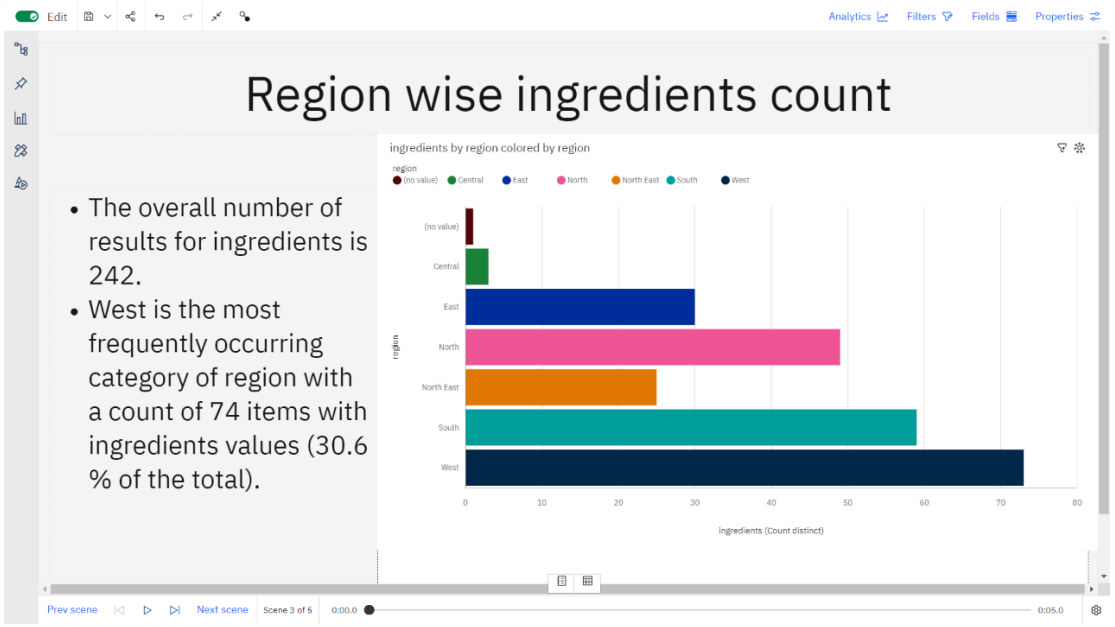


Fig 7.1.2.5 Story of Indian Food Eda.

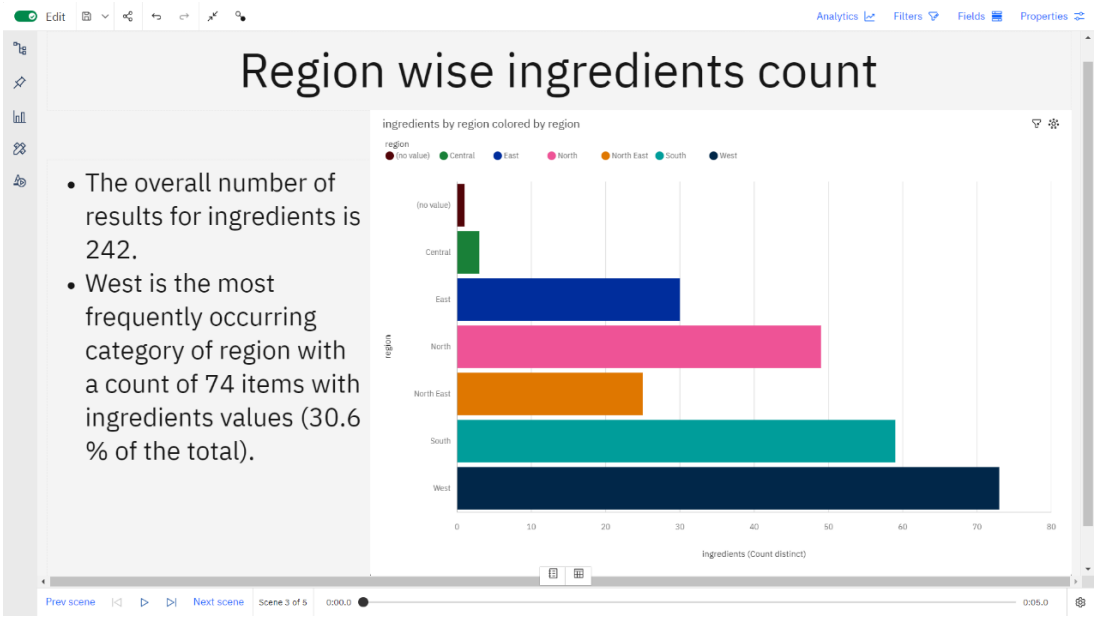


Fig 7.1.2.6 Story of Indian Food Eda.

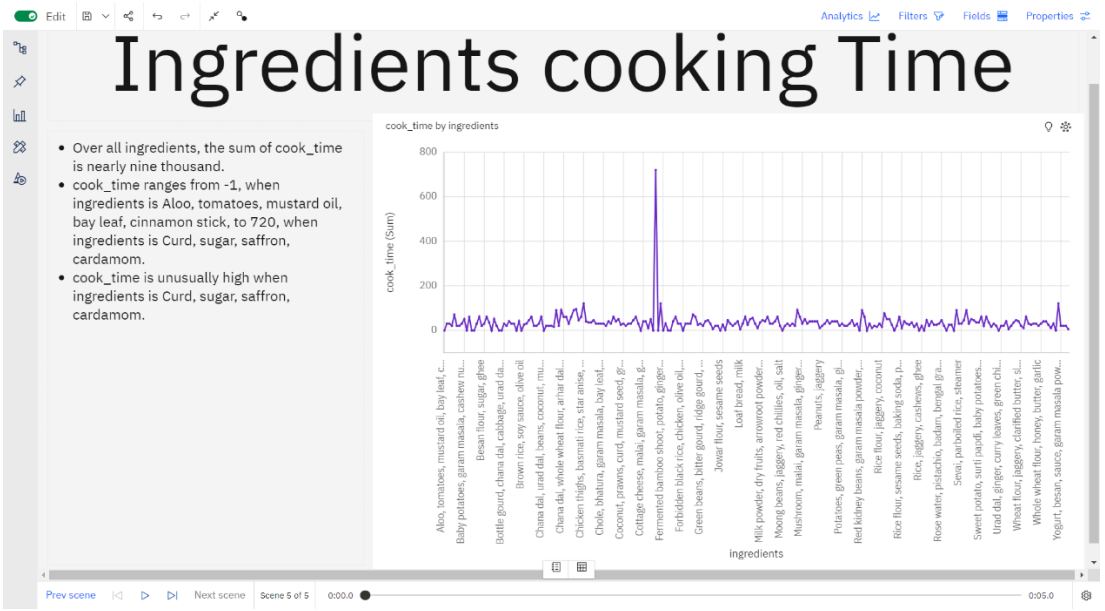


Fig 7.1.2.7 Story of Indian Food Eda.

Report

Fig 7.1.2.8 Report of Indian Food Eda.

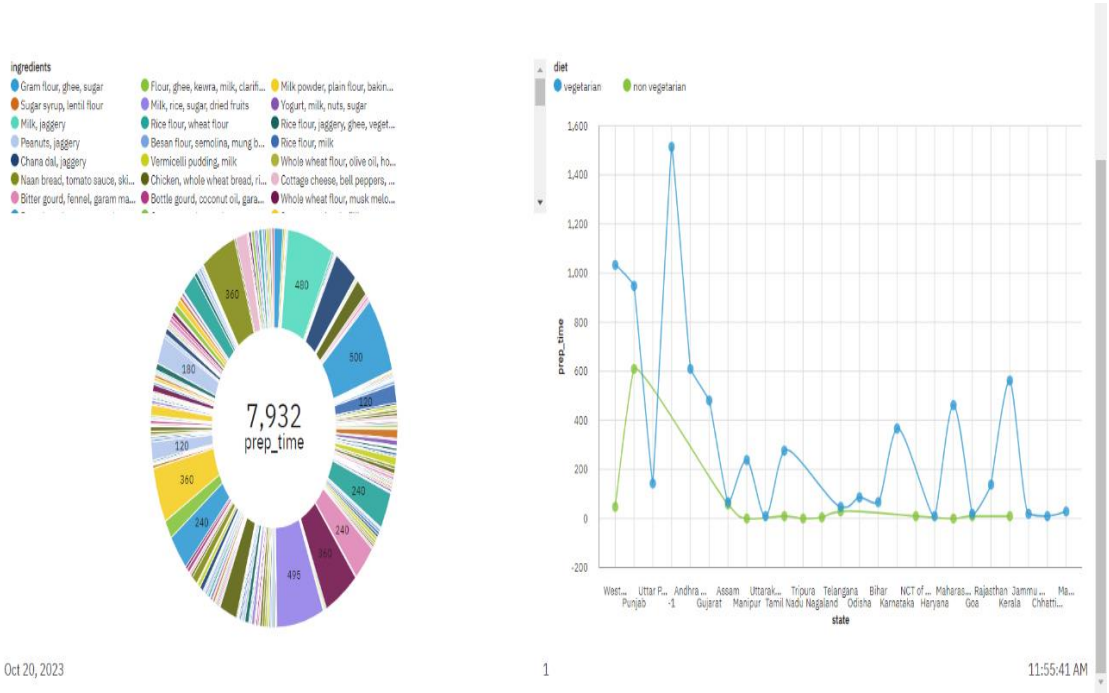


Fig 7.1.2.9 Report of Indian Food Eda.

7.1.2 No. of. Calculation Fields

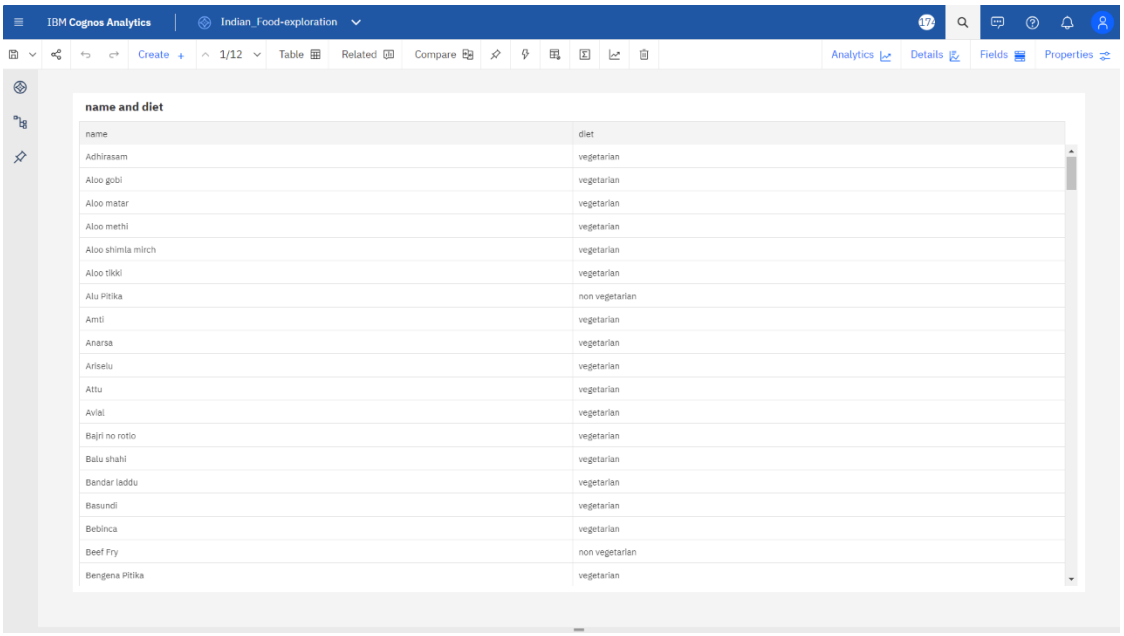


Fig 7.1.3 No. of. Calculation Fields

7.1.3 No. of. Visualizations/Graphs

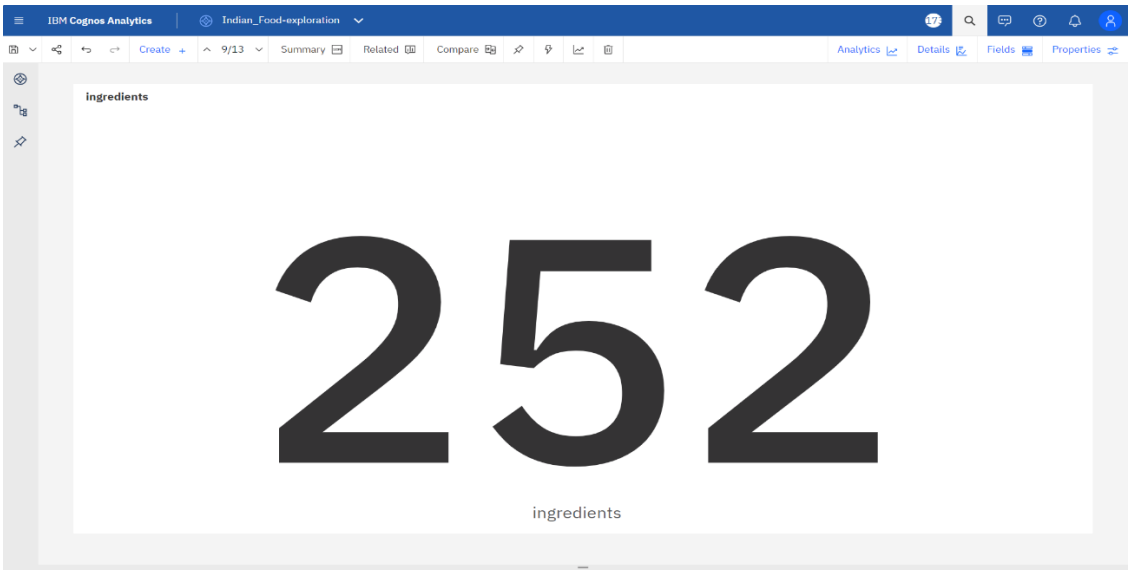


Fig 7.1.4.1 Total Ingredients.

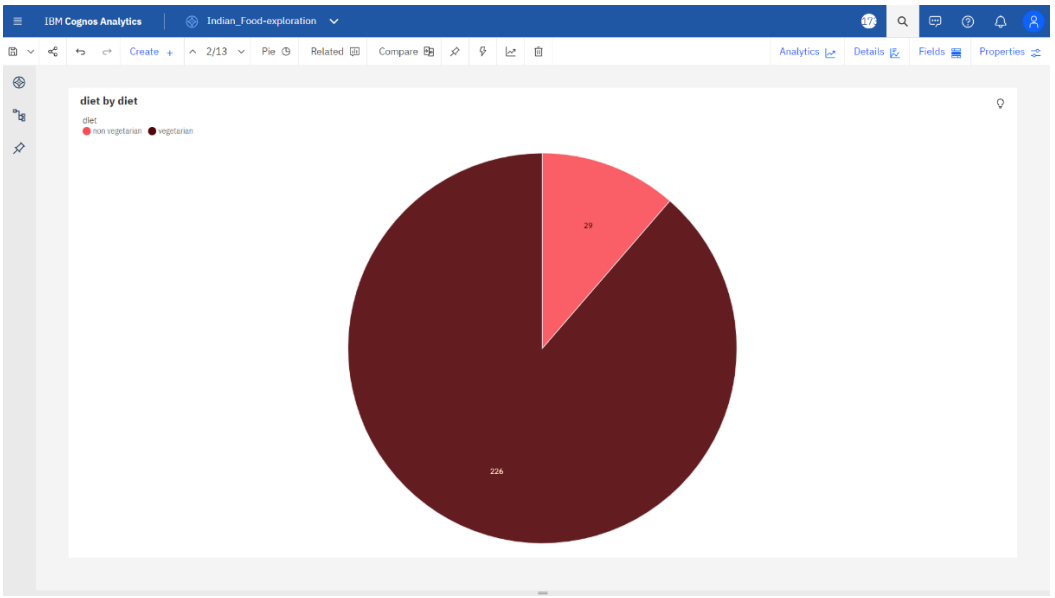


Fig 7.1.4.2 Diet type of customer

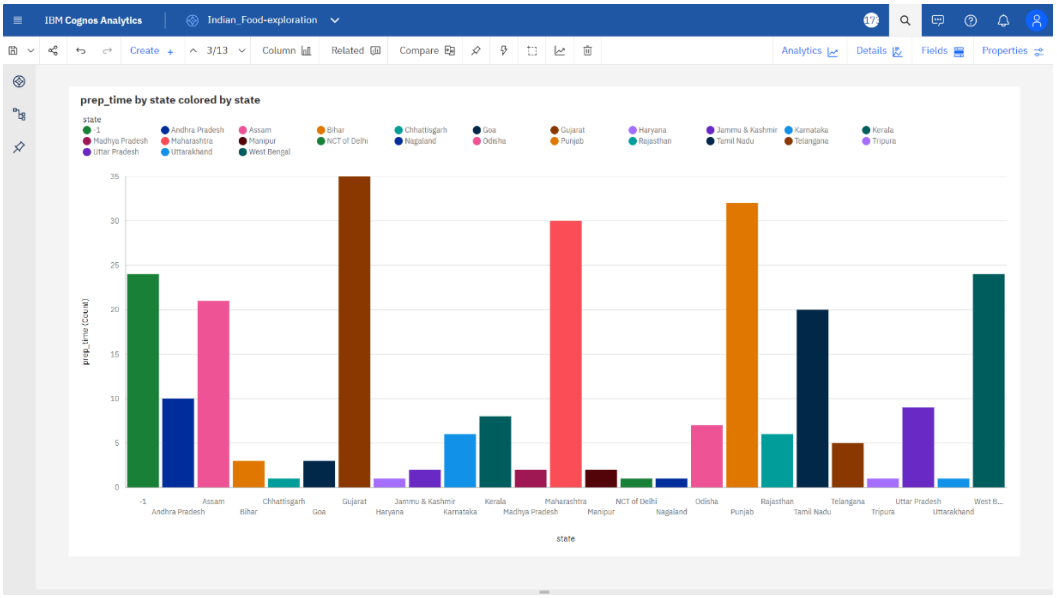


Fig 7.1.4.3 Preparation time Analysis by state

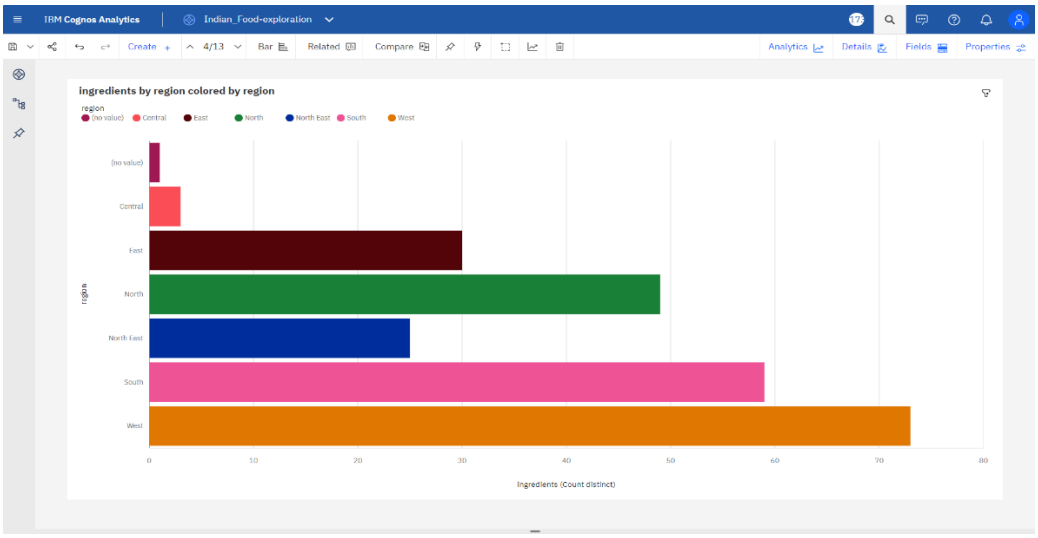


Fig 7.1.4.4 Ingredients Analysis by region

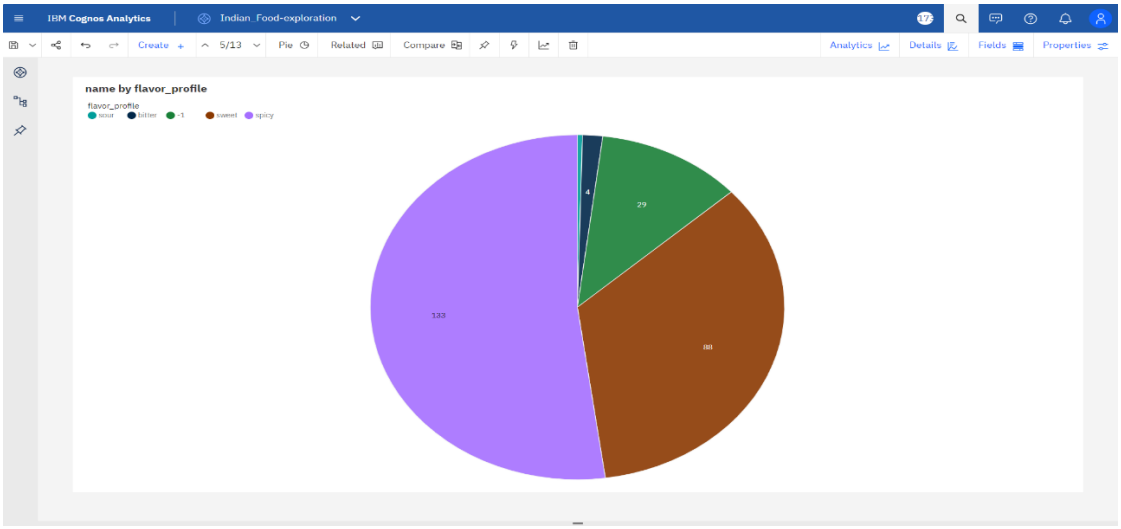


Fig 7.1.4.5 Name Analysis by Flavor Profile

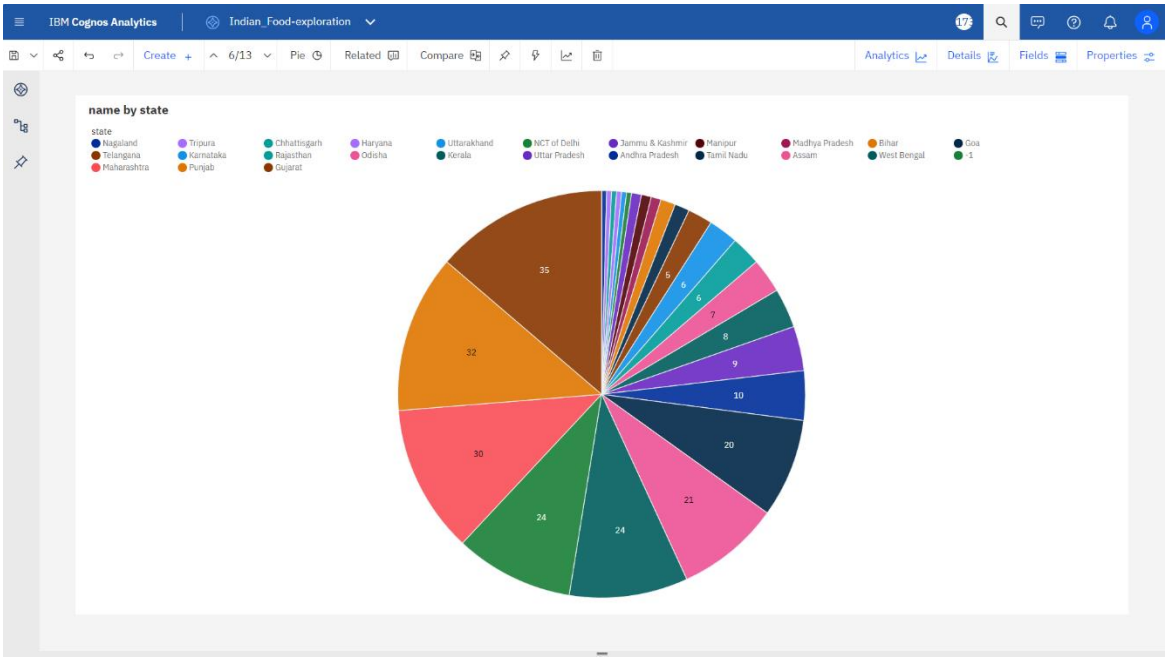


Fig 4.7.1.6 Name Analysis by State

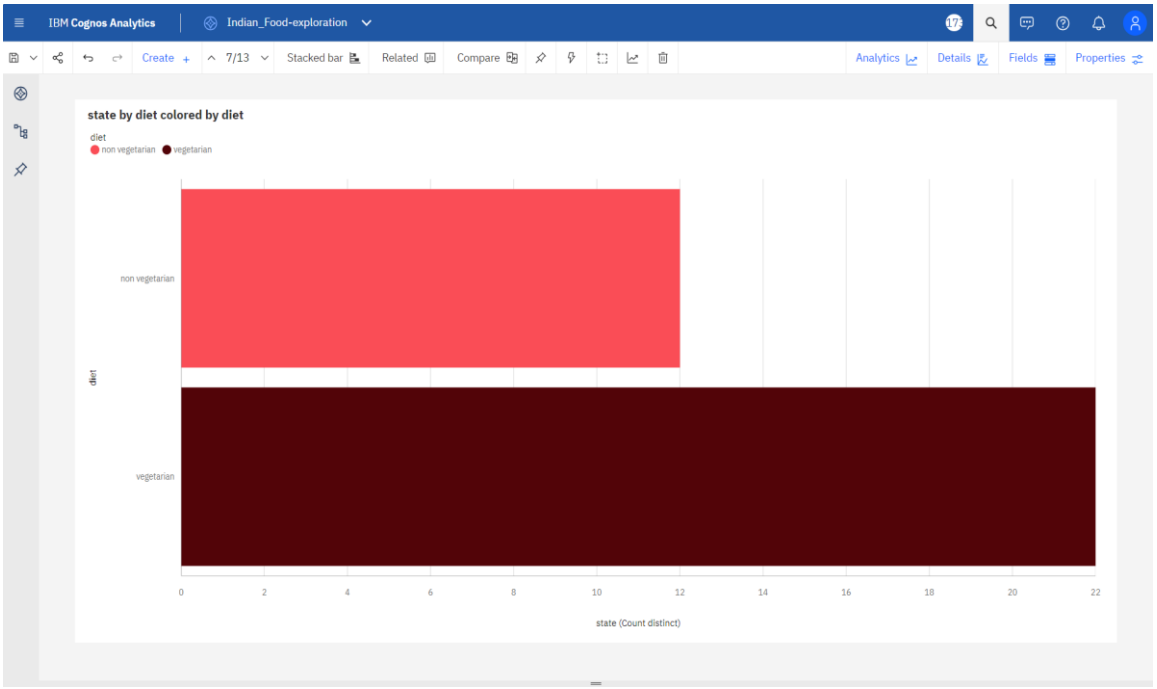


Fig 7.1.4.7 Diet Analysis as per State

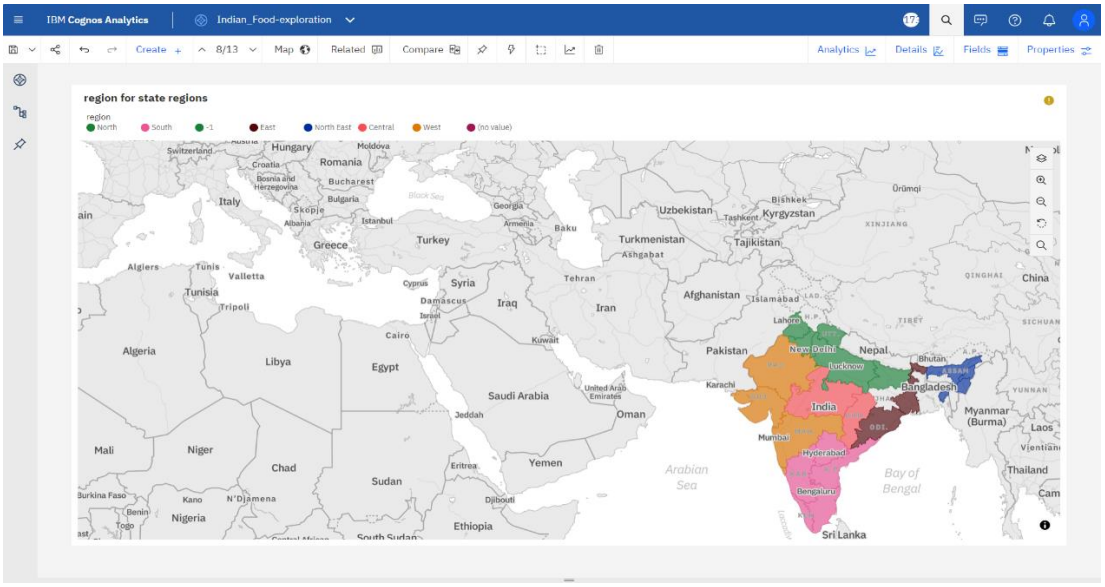


Fig 7.1.4.8 Passenger Analysis as per Source City

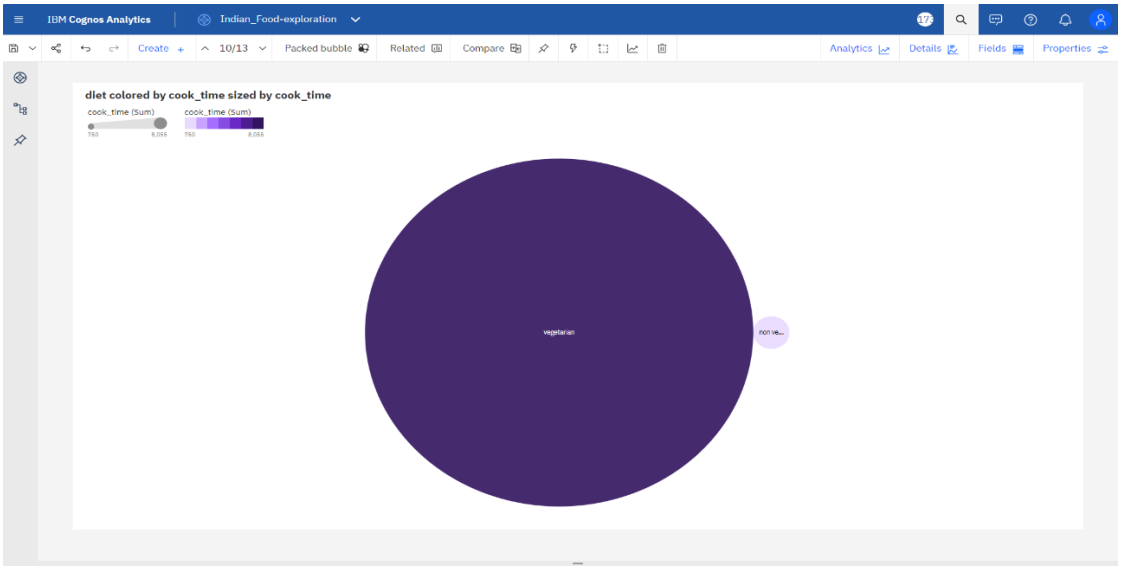


Fig 7.1.4.9 Total Revenue Generated According to day wise.

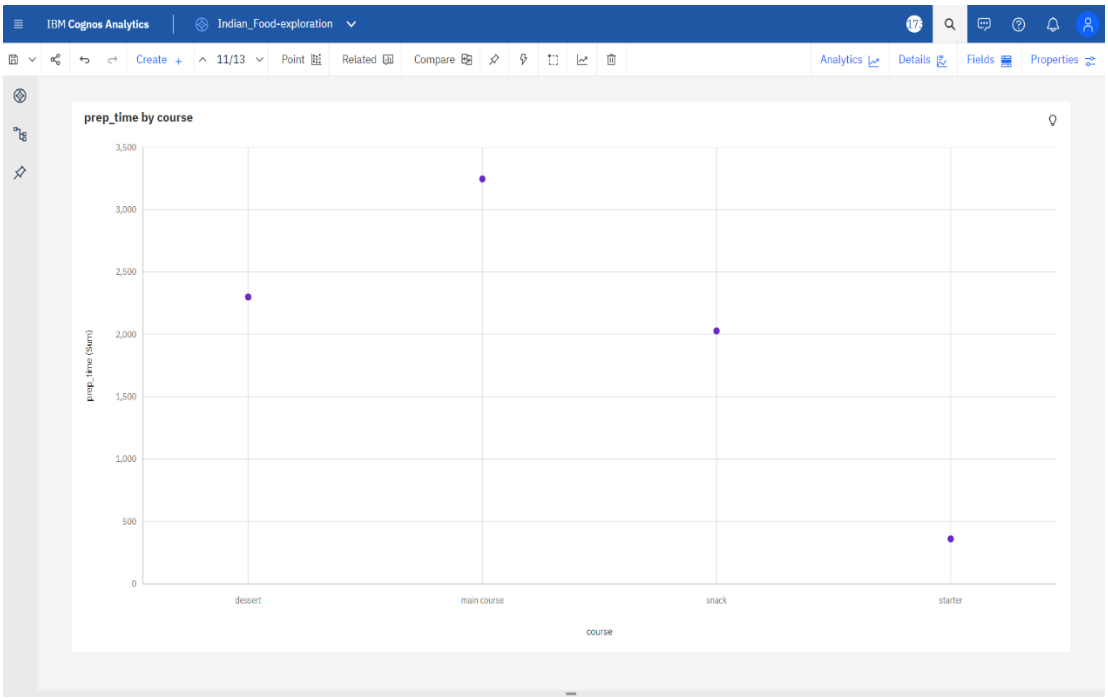


Fig 7.1.4.10 Preparation time by Course

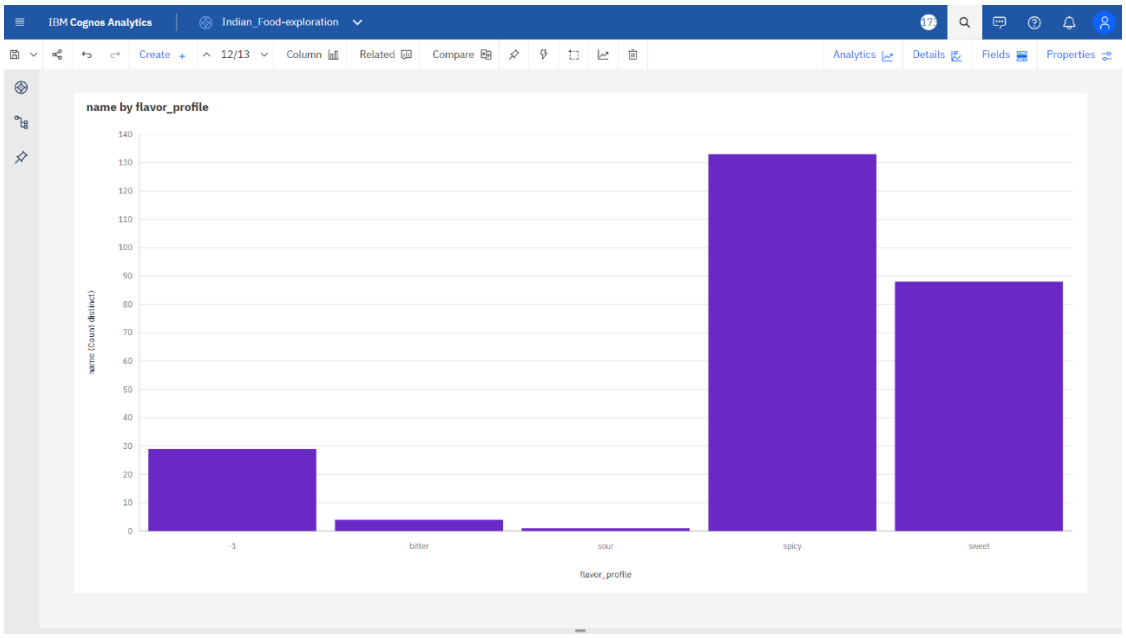


Fig 7.1.4.11 Name by Flavor Profile

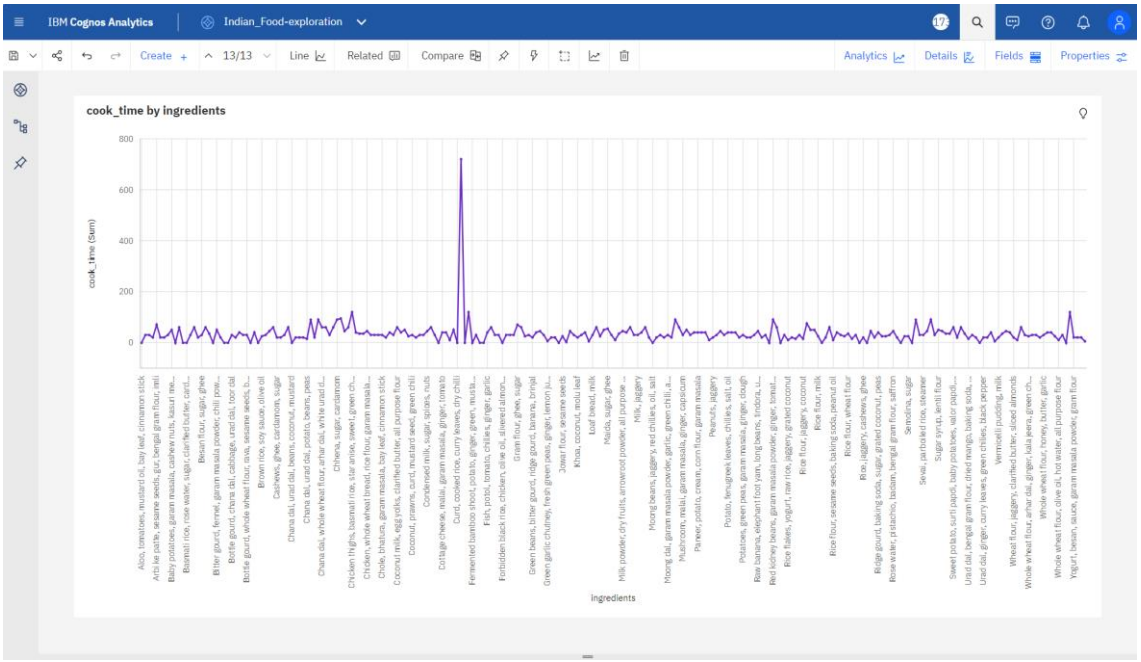


Fig 7.1.4.12 Cooking time by Ingredients

ADVANTAGES AND DISADVANTAGES

CHAPTER 8

ADVANTAGES AND DISADVANTAGES

8.1 ADVANTAGES

1. Cultural Preservation: It helps preserve and showcase the diverse culinary traditions and heritage of India, which is an essential part of its culture.

2. Education: It educates people about the complexities and richness of Indian food, enhancing awareness and understanding of this diverse cuisine.

3. Research Insights: Researchers can gain valuable insights into the history, ingredients, and techniques used in Indian cuisine.

4. User reviews and ratings: Most foodie aggregators include user reviews and ratings for varieties of food. These reviews provide valuable insights and help foodie make more informed decisions about their order. Users can read about others' experiences, assess the quality of services, and make choices accordingly.

5. Social Media Engagement: Content from this project can engage social media users, creating interest and discussion about Indian food.

a)

8.1 DISADVANTAGES

1. Data Quality: Depending on the data sources and methodologies, the accuracy and reliability of the information may vary.

2. Overgeneralization: It's essential to avoid oversimplification when presenting findings, as Indian cuisine is incredibly diverse and complex.

3. Cultural Appropriation: There's a risk of misrepresentation or cultural appropriation if not done with sensitivity and respect for the culture.

4. Cost and Resources: Conducting an in-depth EDA and visualization project can be resource-intensive and costly.

5. Limited Scope: The project might not cover all aspects of Indian culinary heritage, as it's a vast and evolving field.

CONCLUSION

CHAPTER 9

CONCLUSION

In conclusion, this project represents a significant step towards enhancing our understanding and visualizing the rich tapestry of Indian culinary heritage through exploratory data analysis (EDA). Indian cuisine is a treasure trove of diverse flavors, ingredients, and traditions, with each state and region weaving a unique story through its dishes. By delving into this culinary mosaic, we have uncovered valuable insights that will benefit a wide-ranging audience.

Researchers and scholars can leverage our findings to deepen their studies of Indian gastronomy, uncovering hidden patterns and connections within the cuisine. Food enthusiasts will gain a newfound appreciation for the complexities and nuances of Indian food, broadening their culinary horizons and inspiring them to explore lesser-known regional delicacies. Health-conscious individuals can also find guidance in making informed dietary choices within the vast realm of Indian cuisine, as our project sheds light on the nutritional aspects of various dishes.

Through engaging visuals and compelling narratives, they can amplify the rich, multifaceted story of Indian food, sparking conversations and encouraging cultural appreciation. Ultimately, this project showcases the incredible diversity and depth of Indian cuisine, transcending borders and bringing people from all walks of life closer to heritage. By offering a holistic understanding and visual representation of Indian culinary traditions, we hope to foster a deeper appreciation for this culinary art form and inspire continued exploration and celebration of the flavors, stories, and traditions that make up the essence of Indian food.

FUTURE SCOPE

CHAPTER 10

FUTURE SCOPE

1. Personalized Dietary Planning: The use of AI and data analysis can lead to more personalized dietary planning based on individual preferences, health conditions, and cultural factors. This can involve the development of smart apps or platforms that recommend tailored Indian recipes and meal plans.

2. Nutritional Analysis and Labeling: There is a growing demand for accurate nutritional information for Indian dishes. EDA can help standardize and provide precise nutritional labeling for restaurant menus, packaged foods, and homemade recipes.

3. Food Allergen Detection: EDA can be used to identify common allergens in Indian dishes, making it easier for individuals with food allergies or sensitivities to choose safe options when dining out or cooking at home.

4. Food Safety and Traceability: EDA can play a role in improving food safety and traceability by analyzing data related to foodborne illnesses, recalls, and quality issues in the Indian food supply chain.

5. Food Waste Reduction: EDA can help identify patterns of food waste in restaurants, homes, and supply chains, leading to strategies to reduce wastage and promote sustainability.

6. Health and Wellness Platforms: Integrating EDA into health and wellness platforms can assist users in achieving their dietary and fitness goals while

enjoying Indian cuisine. These platforms can provide actionable insights and monitoring tools.

7. Food Education and Awareness: EDA can be used to develop educational materials, apps, or platforms that teach people about the history, ingredients, and preparation techniques of Indian food, fostering cultural appreciation.

8. Cross-Cultural Food Analysis: Comparative EDA can explore the impact of Indian cuisine on international food markets and vice versa, uncovering interesting cross-cultural culinary influences.

9. Smart Kitchen Integration: The integration of EDA into smart kitchen appliances can offer real-time cooking recommendations, ingredient substitution suggestions, and interactive cooking experiences for home chefs.

10. Globalization of Indian Cuisine: Explore how Indian cuisine is evolving and adapting to global tastes, dietary preferences, and trends, both within India and internationally.

APPENDIX

CHAPTER 11

APPENDIX

A.1 SOURCE CODE

Index.html

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="utf-8">
<meta content="width=device-width, initial-scale=1.0" name="viewport">
<title>Indian Food Website</title>
<meta content="" name="description">
<meta content="" name="keywords">
<header id="header" class="header fixed-top d-flex align-items-center">
   <div class="container d-flex align-items-center justify-content-between">
   <a href="index.html" class="logo d-flex align-items-center me-auto me-lg-0">
   <h1>INDIAN FOOD EDA<span>.</span></h1>
<nav id="navbar" class="navbar">
 <ul>
        <li><a href="#hero">Home</a></li>
        <li><a href="#about">About</a></li>
        <li><a href="#menu">Menu&Team</a></li>
        <li><a href="#events">Events</a></li>
        <li><a href="#gallery">Gallery</a></li>
        <li class="dropdown"><a href="#"><span>Food Data</span>
<i class="bi bi-chevron-down dropdown-indicator"></i></a>
<ul>
```

```
<li class="dropdown"><a href="#"><span>Data Analytics</span>
<i class="bi bi-chevron-down dropdown-indicator"></i></a>
<ul>
        <li><a href="dashboard.html">DashBoard</a></li>
        <li><a href="report.html">Report</a></li>
        <li><a href="story.html">Story</a></li>
         </ul>
       </li>
     </ul>
   </li>
   <li><a href="#contact">Contact</a></li>
</ul>
</nav>
 <a class="btn-book-a-table" href="#book-a-table">Get Started</a>
 <i class="mobile-nav-toggle mobile-nav-show bi bi-list"></i>
 <i class="mobile-nav-toggle mobile-nav-hide d-none bi bi-x"></i>
</div>
</header>
<section id="hero" class="hero d-flex align-items-center section-bg">
   <div class="container">
     <div class="row justify-content-between gy-5">
       <div class="col-lg-5 order-2 order-lg-1 d-flex flex-column justify-content-
center align-items-center align-items-lg-start text-center text-lg-start">
         <h2 data-aos="fade-up"> Unveiling the Flavors,
           <br> Regional Delights, and<br>
           Popularity of Indian<br> Cuisine</h2>
         <p data-aos="fade-up" data-aos-delay="100">Nutritional Aspects of Indian
Cuisine through Exploratory Data Analysis</p>
<div class="d-flex" data-aos="fade-up" data-aos-delay="200">
<a href="#book-a-table" class="btn-book-a-table">Get Started</a>
```

```
<a href="
https://drive.google.com/file/d/1r1Z40wesLrqjz07zb36DEjWJbMMfGBc8/vi
ew?usp=sharing " class="glightbox btn-watch-video d-flex align-items-
center">
 <i class="bi bi-play-circle"></i><span>Watch Video</span></a>
 </div></div>
 <div class="col-lg-5 order-1 order-lg-2 text-center text-lg-start">
 <img src="assets/img/hero-img.png" class="img-fluid" alt="" data-aos=
 "zoom-out" data-aos-delay="300">
        </div>
       </div>
      </div>
    </section>
     <main id="main">
   <section id="about" class="about">
       <div class="container" data-aos="fade-up">
         <div class="section-header">
           <h2>About Us</h2>
       <p>Learn More <span>About Us</span></p>
    </div>
   <div class="row gy-4">
   <div class="col-lg-7 position-relative about-img" style="background-image:
   url(assets/img/about.jpg) ;" data-aos="fade-up" data-aos-delay="150">
   </div>
   <div class="col-lg-5 d-flex align-items-end" data-aos="fade-up" data-aos-
   delay="300">
   <div class="content ps-0 ps-lg-5">
   <p class="fst-italic">The project is based on  exploratory data analysis on data set
   'Indian Food Eda'. The data set contains the information about famous Indian dishes
   and the foodie.We plot some graphs to know the trends of food in different region
   and correlation between cooking time and food item, number of food items for each
```

state veg-nonveg and recommendation of similar dishes using K-nearest neighbor and also collecting the dataset about the foodie.

```
<div class="position-relative mt-4">
<img src="assets/img/about-2.jpg" class="img-fluid" alt="">
<a href="https://www.youtube.com/watch?v=2-5du2oVM5g" class="glightbox play-btn"></a>
      </div>
   </div>
  </div>
 </div>
</div>
 </section>
<section id="menu" class="menu">
     <div class="container" data-aos="fade-up">
       <div class="section-header">
         <h2>Our Menu</h2>
         <p>Check Our <span>Yummy Menu</span></p>
       </div>
       <ul class="nav nav-tabs d-flex justify-content-center" data-aos="fade-up" data-aos-delay="200">
         <li class="nav-item">
           <a class="nav-link active show" data-bs-toggle="tab" data-bs-target="#menu-starters">
             <h4>Starters</h4>
           </a>
         </li>
   <section id="testimonials" class="testimonials section-bg">
     <div class="container" data-aos="fade-up">
       <div class="section-header">
         <h2>Our Team</h2>
         <p>Who<span>We are</span></p>
```

```
        </div>
<div class="container">
    <div class="copyright">
      &copy; Copyright <strong><span>Indian Food</span></strong>. All Rights
Reserved
    </div>
    <div class="credits">
<a href="https://bootstrapmade.com/"></a>
    </div>
   </div>
  </footer><!-- End Footer -->
  <!-- End Footer -->
  <a href="#" class="scroll-top d-flex align-items-center justify-content-center"><i
class="bi bi-arrow-up-short"></i></a>
  <div id="preloader"></div>
  <!-- Vendor JS Files -->
  <script src="assets/vendor/bootstrap/js/bootstrap.bundle.min.js"></script>
  <script src="assets/vendor/aos/aos.js"></script>
  <script src="assets/vendor/glightbox/js/glightbox.min.js"></script>
  <script src="assets/vendor/purecounter/purecounter_vanilla.js"></script>
  <script src="assets/vendor/swiper/swiper-bundle.min.js"></script>
  <script src="assets/vendor/php-email-form/validate.js"></script>
  <script src="assets/js/main.js"></script>
</body>
</html>
<script src="assets/js/main.js"></script>
</body>
</html>
```

dashboard.html

```
<html>
<head>
   <body>
      <section id="dashboard" class="services">
      <div class="container" data-aos="fade-up">
      <div class="section-title">
         <h2>Dashboard</h2>
      </div>
   <iframe
src="https://us3.ca.analytics.ibm.com/bi/?perspective=dashboard&amp;path
Ref=.my_folders%2FIndian_food-
%2Bdashboard&amp;closeWindowOnLastView=true&amp;ui_appbar=false
&amp;ui_navbar=false&amp;shareMode=embedded&amp;action=view&am
p;mode=dashboard" width="1160" height="900" frameborder="0"
gesture="media" allow="encrypted-media" allowfullscreen=""></iframe>
      </div>
         </section>
   </body>
</html>
```

report.html

```
<html>
<head>
   <section id="Report" class="services">
      <div class="container" data-aos="fade-up">
      <div class="section-title">
      </div>
      <h2>Report</h2>
      <iframe
src="https://us3.ca.analytics.ibm.com/bi/?pathRef=.my_folders%2FIndian_F
ood-
report&amp;amp;closeWindowOnLastView=true&amp;amp;ui_appbar=false&amp;amp;ui
_navbar=false&amp;amp;shareMode=embedded" width="1200" height="1200"
frameborder="0" gesture="media" allow="encrypted-media"
allowfullscreen=""></iframe>
      </div>
   </section>
</html>
```

story.html

```
<html>
<head>
   <section id="Story" class="services">
      <div class="container" data-aos="fade-up">
      <div class="section-title">
      </div>
      <h2>Story</h2>
   <iframe
src="https://us3.ca.analytics.ibm.com/bi/?perspective=story&amp;pathRef=.
my_folders%2FIndian_Food-
story&amp;closeWindowOnLastView=true&amp;
ui_appbar=false&amp;ui_navbar=false&amp;shareMode=embedded&amp;ac
tion=view&amp;mode=dashboard" width="1200" height="1200"
frameborder="0" gesture="media" allow="encrypted-media"
allowfullscreen="">
</iframe>
      </div>
   </section>
</html>
```

Flask code

app.py

```
from flask import Flask, render_template
from flask_cors import CORS

app = Flask(_name_)
CORS(app)

@app.route("/")
def ibm():
    return render_template("Index.html")

@app.route("/dashboard")
def dashboard():
    return render_template("dashboard.html")

@app.route("/story")
def story():
    return render_template("report.html")

@app.route("/report")
def report ():
return render_template("story.html")

if _name_ == "_main_":
   app.run(debug=True)
```

A.2 GITHUB & PROJECT VIDEO

DEMO LINKGitHub

Link**:**
https://github.com/Dhivi13/NM2023TMID02592_Data-Analytics_Indian_Foods/tree/main/project

Project Demo Video

Link:
https://drive.google.com/file/d/1r1Z40wesLrqjz07zb36DEjWJbMMfGBc8/view?usp=sharing