DISH DECODER :

CRAFTING CUSTOM CULINARY EXPERIENCES

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Project Reviewed By: Jaya Sri. J (AP)

Project Created Date:

Project Code: DT 005

College Code:1124

Team Name: Team C

1. *EXECUTIVE SUMMARY*

The Dish Decoder System is a project that utilizes cutting-edge technology to bridge the gap between historical food descriptions and our modern understanding of food. It empowers users to decode information about historical dishes, fostering a deeper appreciation for historical food culture and its evolution throughout time.

The system allows users to upload various types of information: text descriptions, images of historical dishes, or even links to external resources containing relevant details. Through advanced data analysis techniques like image recognition and natural language processing, the system deciphers potential ingredients, cooking techniques, and cultural significance based on historical context.

Designed for user engagement, the Dish Decoder System offers interactive exploration. Users can choose different historical food decoding methods, potentially tailoring the analysis to their specific needs and interests. Finally, the system presents historical food insights in user-friendly formats like textual reports, data visualizations, or even recipe suggestions based on the decoded information.

The Dish Decoder System caters to a broad audience, including history buffs, food enthusiasts, and educators with students. It has the potential to revolutionize historical food exploration by sparking curiosity, fostering appreciation for culinary evolution, and connecting users with their culinary heritage.

Looking ahead, the project holds exciting possibilities for future development, such as integrating more advanced decoding methods, building a user community, and expanding functionalities to include recipe generation or 3D food modeling based on historical information.

The Dish Decoder System unlocks the secrets of historical food, making historical food information accessible and engaging. This fosters a deeper understanding of the past and paves the way for exciting culinary discoveries in the future.

2. Table of Contents:

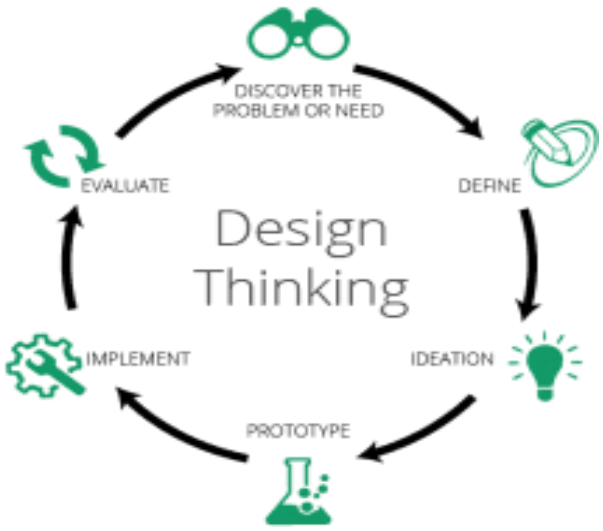
3. INTRODUCTION

In today's fast-paced world, maintaining a healthy diet that caters to individual taste preferences and dietary needs can be a daunting task. With the rise of technology, however, new opportunities emerge to revolutionize the way we approach meal planning. Dish Decoder represents a ground breaking project aimed at addressing the central question How can technology be leveraged to create personalized meal plans that not only accommodate individual tastes and dietary requirements but also promote healthy eating habits and efficient time management?

This project focuses on three fundamental pillars: personalization, health, and convenience. Through advanced algorithms and data analysis, Dish Decoder endeavour to understand users' unique preferences and dietary restrictions, allowing for the creation of tailored meal plans. By recommending recipes that are both delicious and align with specific dietary needs, the application aims to promote healthier eating choices without compromising on flavour.

Moreover, Dish Decoder seeks to streamline the meal planning process, offering users convenient solutions that save time and reduce food waste. By suggesting recipes and generating customized meal plans, the application empowers users to make informed decisions while simplifying their culinary journey.

Through the integration of technology and nutrition, Dish Decoder aspires to revolutionize the way individuals approach meal planning, fostering healthier lifestyles and enhancing overall well-being.



4. PROJECT OBJECTIVE

This project aims to develop a mobile application, Dish Decoder, that leverages machine learning to create personalized recipe recommendations for users. The core objective is to revolutionize how people discover and prepare meals

We will design a user profile creation process to gather data on dietary restrictions, preferred cuisines, and cooking skill levels. This ensures our recommendations perfectly match individual preferences.

Dish Decoder will allow users to easily input their existing pantry staples or readily available ingredients. Our machine learning algorithm will analyze this data against a vast ingredient database to identify recipes that utilize these resources, minimizing food waste.

The heart of Dish Decoder lies in its sophisticated machine learning algorithm. This algorithm will be designed to combine user data, ingredient analysis, and a comprehensive recipe library integration to curate highly personalized recipe recommendations. These recommendations will not only cater to individual dietary needs but also utilize the potential of readily available ingredients

4.1. ASSUMPTIONS:

- We assume users struggle to find recipes that fit their dietary needs and utilize existing ingredients in their kitchen.

- Existing recipe search methods lack personalization and often lead to irrelevant suggestions and food waste.

- Users are increasingly seeking user-centric and efficient recipe discovery tools.

4.2. PROBLEM STATEMENT:

Discovering delicious recipes that cater to individual dietary needs and utilize readily available ingredients is a challenge for home cooks. Existing recipe search methods often rely on basic filters or keywords, neglecting dietary restrictions and ingredient availability. This leads to:

- ***Limited Personalization:*** Irrelevant recipe suggestions due to a lack of consideration for dietary needs.

- ***Inefficient Ingredient Utilization:*** Difficulty finding recipes that use existing ingredients, leading to food waste.

- ***Frustration and Discouragement:*** Time-consuming searches and a lack of suitable options dishearten users from home cooking.

4.3. OBJECTIVES :

To create a user-centric and sustainable recipe recommendation system, Dish Decoder will focus on achieving the following objectives:

- ***Identify User Needs and Challenges:*** Through user interviews, surveys, and data analysis, we aim to understand common dietary restrictions and challenges regarding ingredient availability in recipe discovery.
- ***Apply Machine Learning Principles:*** We will design and implement a machine learning algorithm capable of analyzing user data, including dietary preferences, and ingredient information to curate personalized recipe recommendations.

- ***Develop a Mobile Application*****:** Utilize appropriate programming languages and frameworks to develop a user-friendly mobile application for both iOS and Android platforms.

- ***Prototype and Refine User Experience:*** Design and iterate on low-fidelity prototypes to ensure a smooth and intuitive user experience through usability testing with target users.

- ***Integrate Recipe Library and Ingredient Database:*** Connect the machine learning algorithm to a comprehensive recipe library containing diverse options with detailed ingredient lists and dietary tags, alongside a vast ingredient database with information on potential substitutes.

4.4. EXPECTED OUTCOMES :

By achieving these objectives, Dish Decoder anticipates significant positive outcomes for home cooks, including:

- ***Personalized Recipe Recommendations*****:** Discover exciting new recipes that perfectly match individual dietary needs and preferences.

- ***Reduced Food Waste:*** Maximize the potential of existing ingredients, promoting sustainability and resource efficiency in the kitchen.

- ***Enhanced Culinary Confidence:*** Foster a love for home cooking by empowering users to explore new cuisines and cooking techniques.

- ***Dietary Inclusivity:*** Address the needs of individuals with specific dietary restrictions, creating a more inclusive culinary experience.

- ***Streamlined Recipe Discovery:*** Eliminate frustrating searches by providing tailored recommendations that save time and effort.

4.5. SCOPE:

Dish Decoder, a mobile application, leverages machine learning for personalized recipe recommendations. Users create profiles detailing dietary needs and preferences. They input existing ingredients and receive tailored recipe suggestions based on this data. The application integrates with a comprehensive recipe library for accurate recommendations.
This project focuses on developing a user-friendly mobile application (iOS & Android) with secure data storage. Success hinges on user satisfaction with personalized recommendations, reduced food waste through efficient ingredient utilization, and positive feedback on the app's design and usability.
This scope excludes features like online grocery shopping integration, advanced recipe creation tools, and social media functionalities. These might be considered for future iterations based on project success and user feedback.
This project utilizes a two-pronged approach to develop Dish Decoder, a mobile application that personalizes recipe recommendations for home cooks. The methodology integrates design thinking principles to understand user needs with algorithmic problem-solving techniques to leverage machine learning effectively.

5. METHODOLOGY

5.1. DESIGN THINKING METHOD:

EMPATHIZE:

Understanding User Challenges

Conduct in-depth interviews with potential users to delve into their dietary restrictions, preferred cuisines, cooking habits, and frustrations encountered during recipe discovery.
Design and distribute surveys to gather broader user data and identify key pain points regarding current recipe search methods. Analyze the collected data to understand common themes and challenges.

DEFINE:

Problem Statement Formulation

Based on user research findings, define the core problem statement that Dish Decoder aims to address. This might involve limitations of existing recipe searches that fail to consider dietary needs and existing ingredients, leading to irrelevant suggestions, frustration, and ultimately, food waste.

IDEATE:

Brainstorming Solutions

Facilitate brainstorming sessions to generate creative solutions that address the defined problem statement. Explore innovative ways to personalize recipe recommendations based on user needs and readily available ingredients. This could potentially lead to the concept of Dish Decoder, a mobile application focused on user-specific recipe suggestions.

PROTOTYPE:

Low-Fidelity Prototype Development

Develop a low-fidelity prototype of the Dish Decoder app. This initial version should prioritize core functionalities like user profile creation, ingredient input, and basic recipe recommendation displays. Focus on user feedback over aesthetics at this stage.

TEST:

Usability Testing and Feedback

Conduct usability testing sessions with target users to gather feedback on the low-fidelity prototype. Observe user interactions and gather their insights on the design, ease of use, and effectiveness in addressing their needs identified during the empathize phase

5.2. ALGORITHMIC PROBLEM SOLVING METHOD:

- ***DATA COLLECTION AND PREPROCESSING***

    - ***Recipe Data Acquisition:*** Assemble a comprehensive dataset of recipes with detailed ingredient lists and clear dietary tags. Ensure the data is accurate and representative of a wide range of cuisines and dietary restrictions.

    - ***User Data Development:*** Design a user profile system within the app to capture user preferences, including dietary restrictions, preferred cuisines, and cooking skill levels.

    - ***Data Cleaning and Normalization:*** Clean and normalize the collected data to ensure consistency and accuracy. This allows for optimal performance of the machine learning model in the next phase.

- ***MACHINE LEARNING MODEL DEVELOPMENT***

- ***Model Selection*:** Choose an appropriate machine learning algorithm equipped to analyze user data, ingredient information, and the recipe library.

- ***Model Training:***Train the chosen algorithm on the prepared dataset. This training process enables the model to identify patterns and relationships between user preferences, available ingredients, and suitable recipe options.

- ***MODEL EVALUATION AND OPTIMIZATION***

  - ***Testing and Validation:***Test the model's performance on unseen data to assess its ability to generalize and accurately generate personalized recipe recommendations for users with diverse needs and ingredient availability.

  - ***Model Tuning:***Based on the testing results, refine the model's parameters to improve its ability to deliver relevant and user-specific recipe suggestions. This iterative process ensures the model continuously learns and adapts to provide optimal recommendations.

By merging design thinking and algorithmic problem-solving, Dish Decoder aspires to transform the home cooking experience. Prioritizing user needs and dietary inclusivity through a user-centered approach, the project leverages machine learning to minimize food waste and maximize the potential of readily available ingredients. This methodology ensures continuous improvement through user feedback and ongoing model optimization, empowering home cooks of all levels to explore new culinary possibilities while adhering to their unique needs and fostering a more sustainable kitchen environment.

6. ARTIFACTS USED

Survey Questionnaire, responses, empathy map , brainstroming are the artifacts used for the project.

6.1. QUESTIONNAIRE :

The questionnaire is used here to gather user data on recipe discovery challenges, a user research survey was developed and distributed via Google Forms. This online survey allowed us to reach a broad audience and collect insights from a diverse range of potential users.

1. How often do you cook at home?

- Daily
- A few times a week
- Occasionally

- Rarely

2. What are your biggest challenges when searching for recipes? (Select all that apply)

- Finding recipes that fit my dietary restrictions (e.g., vegetarian, gluten-free)
- Utilizing ingredients I already have on hand
- Discovering new and exciting recipes to try
- Dealing with irrelevant search results
- Finding recipes that match my skill level (beginner, experienced)
- Other (Please specify)

3. Do you have any specific dietary restrictions?

- Yes
- No

4. If yes, please select all that apply to you. (Multiple choice options based on common restrictions)

- Vegetarian
- Vegan
- Gluten-free
- Dairy-free
- Nut allergy
- Other (Please specify)

5. How important is it to you to find recipes that utilize ingredients you already have?

- Very important
- Somewhat important
- Not important
-

6. When following a recipe, do you ever substitute ingredients?

- Always
- Sometimes
- Never

7. If yes, what factors influence your decision to substitute ingredients? (Select all that apply)

- Personal preference
- Dietary restrictions
- Availability of ingredients

- Other (Please specify)

8. How helpful are online recipe reviews and ratings in your decision to try a recipe?

- Very helpful
- Somewhat helpful
- Not helpful

9. Would you be interested in a mobile app that recommends recipes based on your dietary needs and existing ingredients?

- Yes
- No

10. What features would be most valuable to you in a recipe recommendation app? (Select all that apply)

- Ability to create a user profile with dietary restrictions
- Ingredient search based on what you already have
- Recipe filter by cuisine type
- Option to save favorite recipes
- User-generated reviews and ratings
- Other (Please specify)

11. How often would you be likely to use a recipe recommendation app?

- Daily
- A few times a week
- Occasionally
- Rarely

12. What would be the biggest benefit for you in using a recipe recommendation app?

- Reduced food waste
- Discovering new recipes
- Saving time on recipe searching
- Easier meal planning
- Other (Please specify)

13. Do you have any concerns about using a recipe recommendation app?

- Yes
- No

14. ***If yes, please specify your concerns.***

(Open ended)

15. Is there anything else you would like to share about your recipe discovery habits or preferences?

(Open ended)

6.2. EMPATHY MAPS:

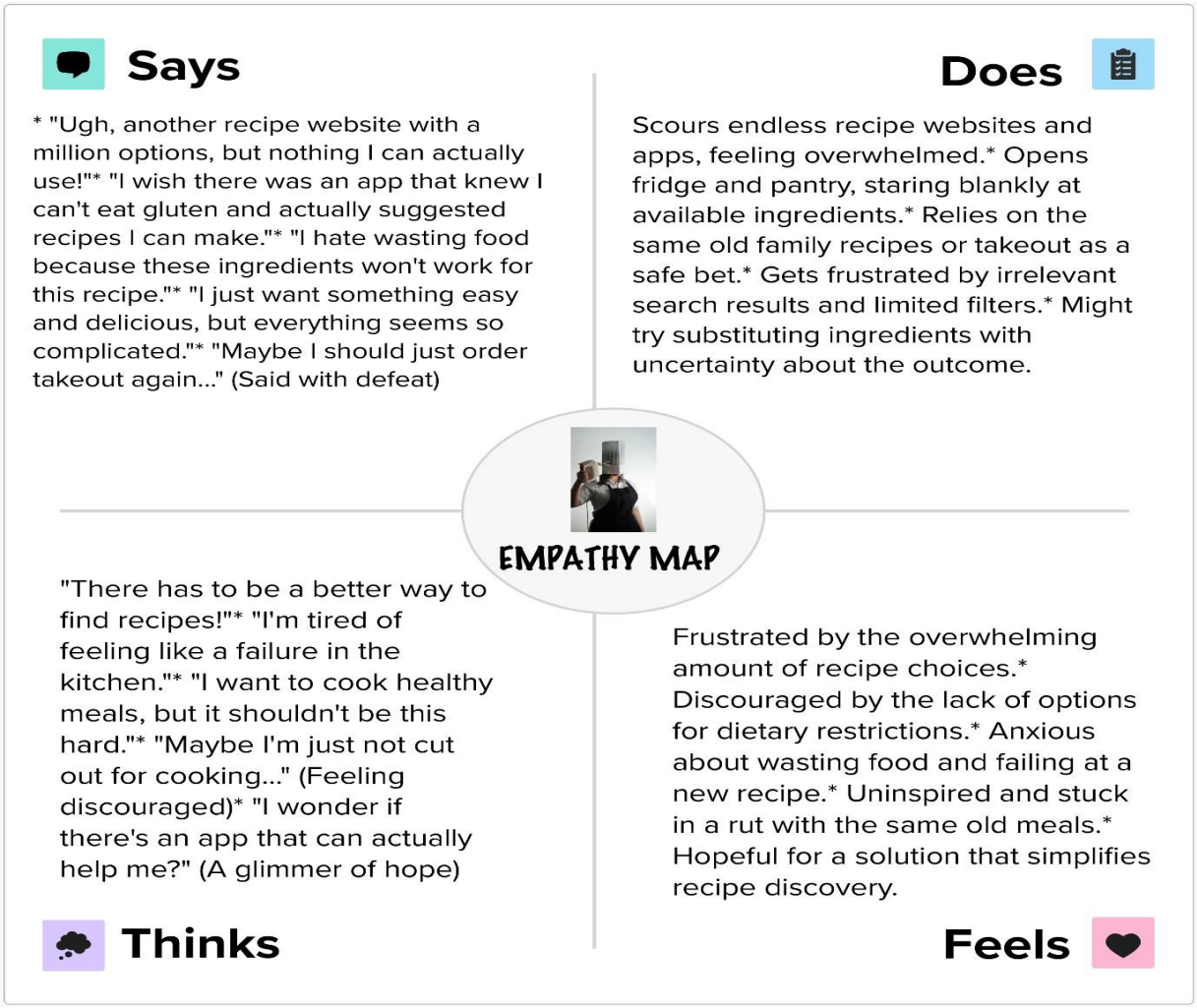
The empathy map played a crucial role in shaping Dish Decoder's user-centered design. Through in-depth interviews (and potentially surveys) with home cooks, we delved into their experiences. By analyzing their thoughts, feelings, actions, and frustrations, we were able to construct this map. It serves as a window into the "home cook persona," revealing the struggles they encountered:

- ***Dietary Woes:*** Home cooks expressed difficulty in finding recipes that catered to their specific dietary restrictions.

- ***Ingredient Odyssey:*** The challenge of utilizing existing ingredients to avoid food waste emerged as a recurring theme.

- ***Search Struggle:*** They battled overwhelming and irrelevant search options on recipe websites and apps.

- ***Culinary Rut*:** A lack of inspiration for exploring new cuisines and recipes left them feeling stuck in a rut.



6.3. IDEATION METHOD

FROM IDEA TO INNOVATION: THE DISH DECODER SYSTEM'S GENESIS

The Dish Decoder System wasn't born overnight. It's the culmination of a creative journey that involved extensive exploration and user-centered design principles. Throughout the project's development, we prioritized understanding user needs and leveraging innovative technologies to bridge the gap between historical/cultural food information and user exploration.

BRAINSTORMING AND USER FOCUS:

The initial stages involved brainstorming a multitude of ideas to explore the potential of food-related data and user engagement. We didn't limit ourselves to a single technique; we embraced a dynamic approach that encouraged open discussion and exploration. This included considering user needs and interests through various channels, such as:

- ***User Interviews or Surveys*:** Understanding user perspectives on food history exploration, potential challenges, and desired functionalities was crucial.

- ***Competitive Analysis:*** Examining existing tools or resources related to food history provided valuable insights into current trends and potential areas for differentiation.

REFINING AND SHAPING THE VISION:

The initial brainstorm yielded a plethora of ideas. We then employed a process of refinement, constantly evaluating and filtering concepts based on:

- ***User Needs:*** Did the idea address a user need or interest identified through research?
- ***Technical Feasibility:*** Could the concept be realistically implemented with available technology and resources?
- ***Project Goals:*** Did the idea align with the overall vision of promoting information accessibility and user-centered food exploration?

Through this iterative process, the Dish Decoder System's core functionalities and target audience emerged.

CONTINUOUS IMPROVEMENT:

The Dish Decoder System is a living project. We recognize the importance of ongoing user feedback and adaptation to ensure it remains relevant and valuable. Future iterations might incorporate features or functionalities that arise from:

- ***User Feedback Loops*:** Integrating user suggestions and addressing identified challenges will enhance the system's usability and user experience.
- ***Technological Advancements:*** New technologies in image recognition or NLP could further refine the system's decoding capabilities.

By prioritizing user-centered design and embracing an iterative development approach, we've created a foundation for the Dish Decoder System to continuously evolve and empower users to explore the fascinating world of food history and culture.

7. TECHNICAL COVERAGE

Mural was used to create Empathy Map. Figma used to create low-fidelity prototype of web pages.

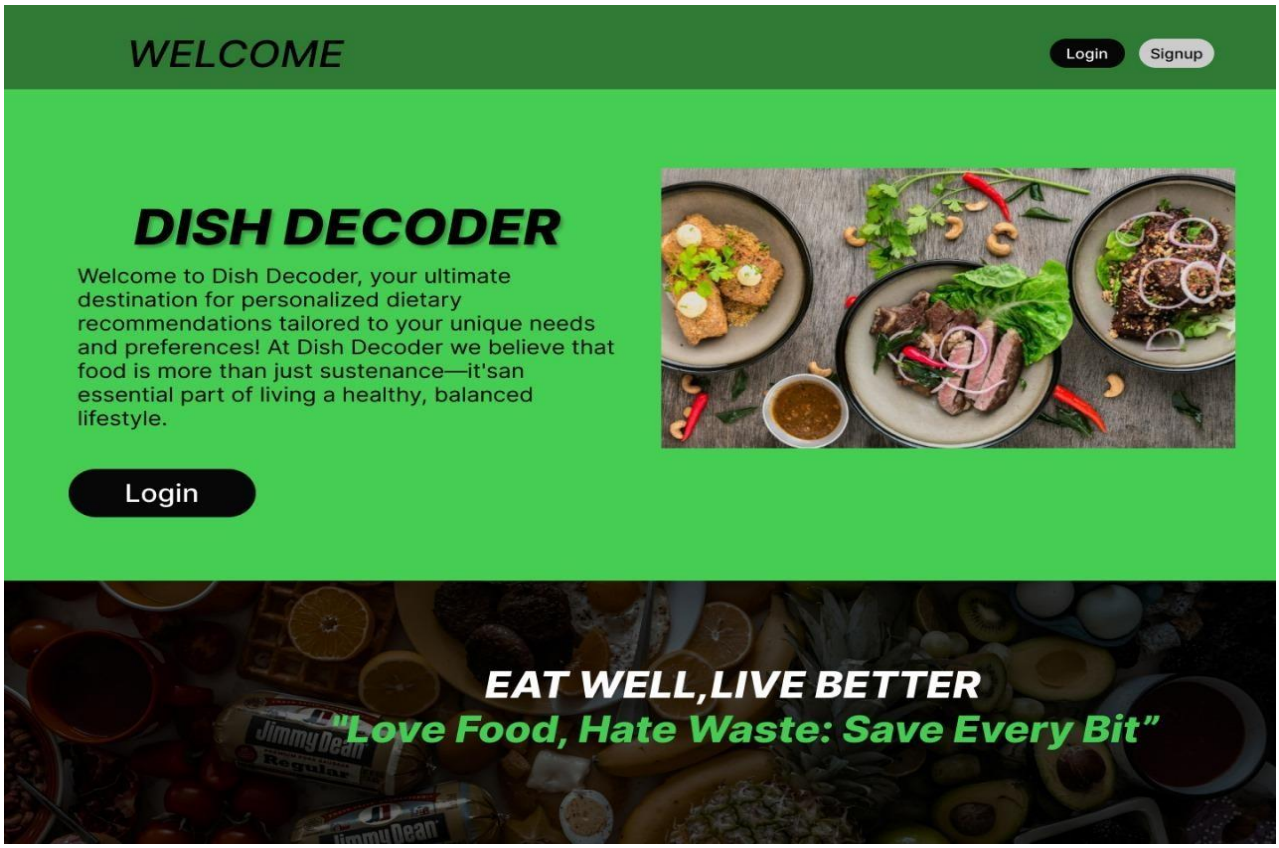
7.1. PROTOTYPE:

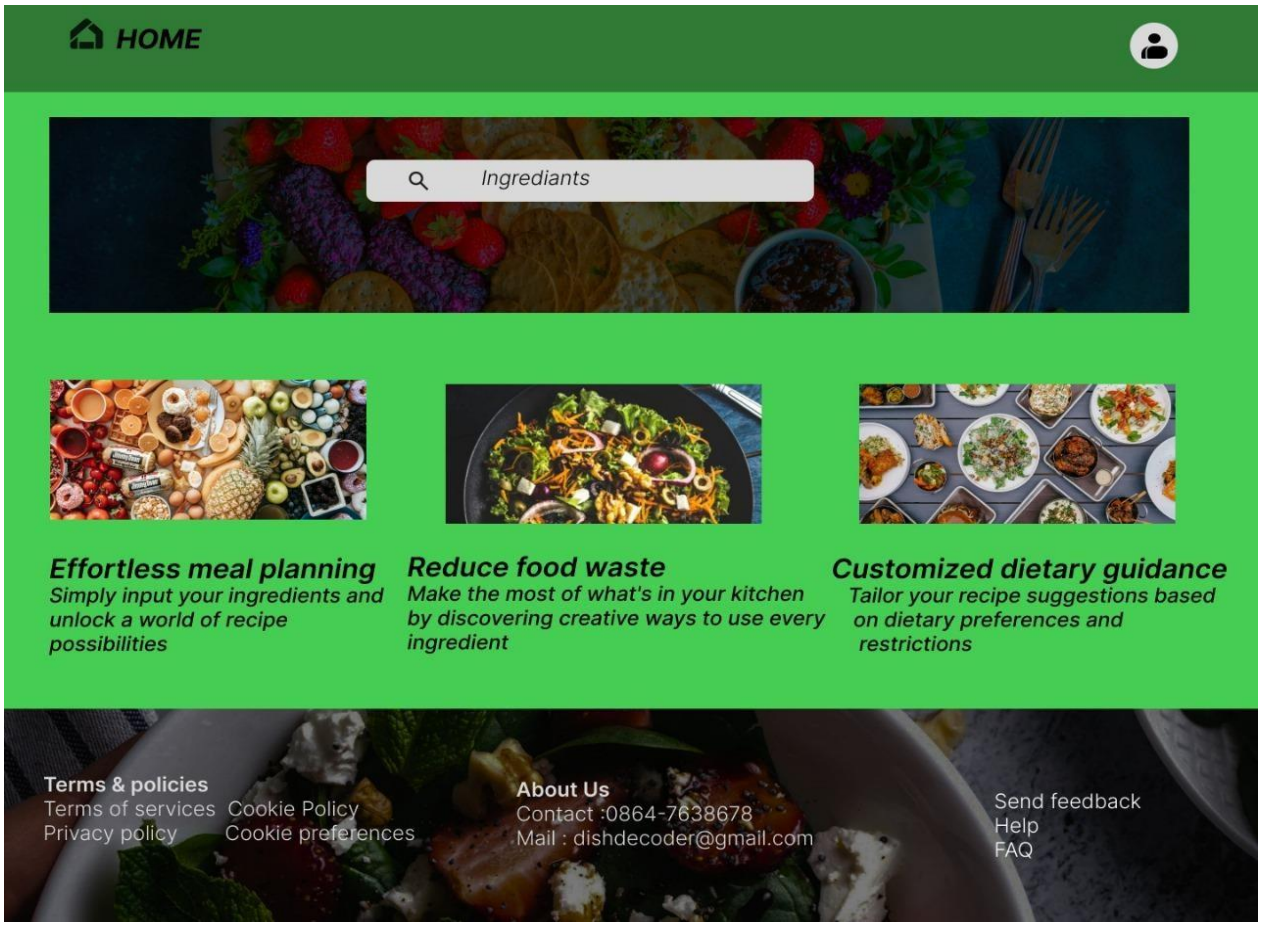
The Dish Decoder System is still under development, but we've built a basic version to get your feedback! This early prototype lets you:

- Upload information about historical dishes: text descriptions, pictures, or even links to relevant websites.
- See your uploaded information displayed on the system.

While the full food-decoding magic isn't there yet, you can learn about the different ways we plan to analyze historical dishes (like using image recognition or understanding old recipes) and how you'll see the results in the future (reports, charts, or maybe even recipe ideas!).

This prototype is a starting point to gather your thoughts and help us build the best Dish Decoder System possible!


WELCOME
Login
Signup
DISH DECODER
Welcome to Dish Decoder, your ultimate destination for personalized dietary recommendations tailored to your unique needs and preferences! At Dish Decoder we believe that food is more than just sustenance—it'san essential part of living a healthy, balanced lifestyle.
Login
EAT WELL,LIVE BETTER
"Love Food, Hate Waste: Save Every Bit"


HOME
Ingrediants
Effortless meal planning
Simply input your ingredients and unlock a world of recipe possibilities
Reduce food waste
Make the most of what's in your kitchen by discovering creative ways to use every ingredient
Customized dietary guidance
Tailor your recipe suggestions based on dietary preferences and restrictions
Terms & policies
Terms of services
Cookie Policy
Privacy policy
Cookie preferences
About Us
Contact :0864-7638678
Mail : dishdecoder@gmail.com
Send feedback
Help
FAQ

7.2. CODE SNIPPET:

Welcome page

<div class="Navigation" style="height: 164px; padding-left: 80px; padding-right: 80px; padding-top: 55px; padding-bottom: 55px; background: #111E16; justify-content: center; align-items: flex-start; gap: 591px; display: inline-flex">

Dish Decoder

HOME

ABOUT US

FAQ

<div class="Button" style="padding-left: 24px; padding-right: 24px; padding-top: 14px; padding-bottom: 14px; background: black; box-shadow: 0px 1px 2px rgba(0, 0, 0, 0.05); border-radius: 8px; justify-content: center; align-items: center; gap: 8px; display: flex">

SIGN IN

```
</div>

<div class="Frame1321316142" style="padding: 10px; flex-direction: column; justify-content: flex-start; align-items: flex-start; gap: 10px; display: flex">

<div class="Copy" style="height: 309px; flex-direction: column; justify-content: flex-start; align-items: center; gap: 24px; display: flex">

<div class="DishDecoder" style="align-self: stretch; text-align: center; color: black; font-size: 64px; font-family: Inter; font-weight: 700; word-wrap: break-word">DISH DECODER</div>

<div class="ExploreCulinaryHistoryWithCuttingEdgeTechnology" style="align-self: stretch; text-align: center; color: black; font-size: 36px; font-family: Inter; font-weight: 900; line-height: 54px; word-wrap: break-word">Explore Culinary History with Cutting-Edge Technology.</div>

<div class="Button" style="padding-left: 24px; padding-right: 24px; padding-top: 14px; padding-bottom: 14px; background: black; box-shadow: 0px 1px 2px rgba(0, 0, 0, 0.05); border-radius: 8px; justify-content: center; align-items: center; gap: 8px; display: inline-flex">

<div class="LetUsGo" style="color: white; font-size: 32px; font-family: Inter; font-weight: 500; line-height: 48px; word-wrap: break-word">LET US GO!</div>

</div>

</div>

</div>

<img class="ImageDragInToFill" style="width: 1280px; height: 640px; position: relative; border-radius: 8px" src="https://th.bing.com/th/id/OIP._OO0ghbx1fsXodlrfQ5nHwHaE8?w=249&h=180&c=7&r=0&o=5&pid=1.7" />

<div class="LetUsBrowseForTheSakeOfOurHealth" style="width: 1212px; color: black; font-size: 48px; font-family: Inter; font-weight: 600; line-height: 52.80px; word-wrap: break-word">LET US BROWSE FOR THE SAKE OF OUR HEALTH!!</div>

<div class="Heading" style="width: 991px; height: 156px"></div>

</div>
```

HOME PAGE

Lentil Soup

Baked Salmon with Roasted Vegetables

Baked Chicken Breast with Sweet Potato

<div class="DietarySuggestionsBasedOnTheIngredients" style="width: 625px; height: 140px; left: 80px; top: 2611px; position: absolute; color: black; font-size: 40px; font-family: Irish Grover; font-weight: 400; line-height: 44px; word-wrap: break-word">Dietary Suggestions based on the Ingredients

A balanced diet is the cornerstone of a healthy life. It goes beyond just physical benefits like weight management and disease prevention. The goodness of a balanced diet extends to your mental well-being, with brain-boosting nutrients that enhance focus and mood. Nourishing your body with the right foods fuels your energy levels, improves sleep quality, and even boosts confidence. It's an investment in your overall well-being, allowing you to live a vibrant and fulfilling life.

Forget fancy grocery lists! Let's unlock the potential of your pantry and fridge. We all know the struggle of wanting healthy, delicious meals but feeling limited by ingredients. But fear not, fellow food adventurers! With a little creativity, you can whip up fantastic dishes that nourish your body and tantalize your taste buds. Think of it like a culinary treasure hunt – explore those forgotten corners and hidden shelves! Who knows, you might discover a forgotten can of beans destined for a vibrant veggie chili or a bag of lentils perfect for a protein-packed soup. The possibilities are endless! So, ditch the takeout menus and embrace the challenge. Get ready to surprise yourself and your loved ones with culinary masterpieces born from resourcefulness!

Delicious Choices, Healthy Lifestyle!

<div class="FuelYourBodyAndTantalizeYourTasteBudsHealthyLivingStartsHere" style="align-self: stretch; color: #111E16; font-size: 24px; font-family: Inknut Antiqua; font-weight: 400; line-height: 36px; word-wrap: break-word">Fuel your body and tantalize your taste buds - healthy living starts here!

<div class="Navigation" style="height: 164px; padding-left: 80px; padding-right: 80px; padding-top: 56px; padding-bottom: 56px; left: 0px; top: 0px; position: absolute; background: #111E16; justify-content: center; align-items: center; gap: 745px; display: inline-flex">

HOME

```
<div class="AboutUs" style="color: #FCF4F4; font-size: 20px; font-family: Inter; font-weight: 500; line-height: 30px; word-wrap: break-word">About us</div>

<div class="Faq" style="color: #FFFBFB; font-size: 20px; font-family: Inter; font-weight: 500; line-height: 30px; word-wrap: break-word">FAQ</div>

<div class="ContactUs" style="color: #FFFCFC; font-size: 20px; font-family: Inter; font-weight: 500; line-height: 30px; word-wrap: break-word">Contact us</div>

<div class="Button" style="padding-left: 24px; padding-right: 24px; padding-top: 14px; padding-bottom: 14px; background: black; box-shadow: 0px 1px 2px rgba(0, 0, 0, 0.05); border-radius: 8px; justify-content: center; align-items: center; gap: 8px; display: flex">

<div class="SignIn" style="color: white; font-size: 16px; font-family: Inter; font-weight: 500; line-height: 24px; word-wrap: break-word">Sign in</div>

</div>

</div>

</div>

</div>
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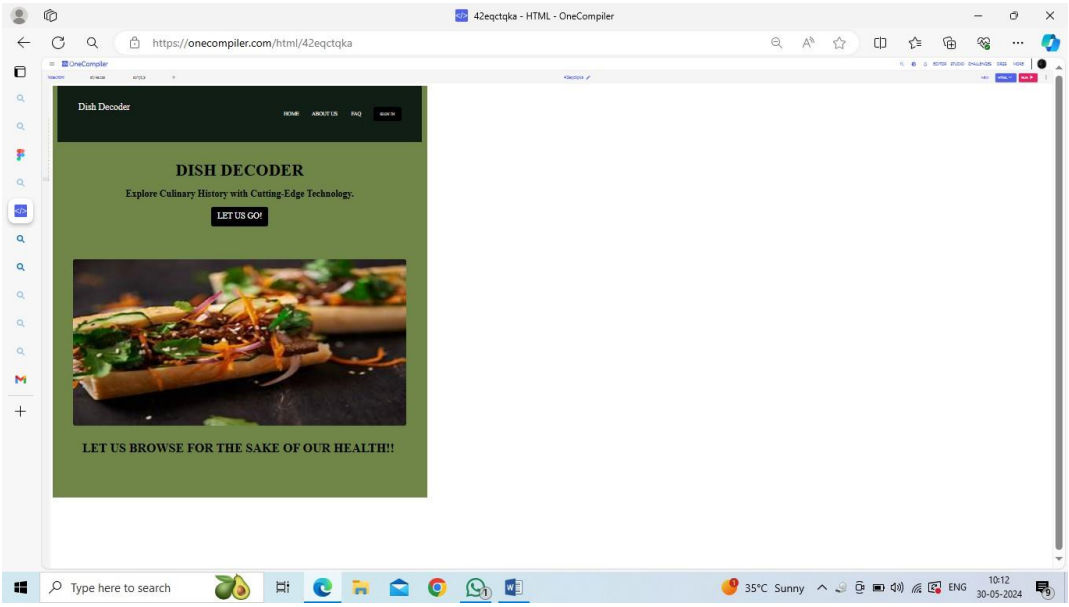
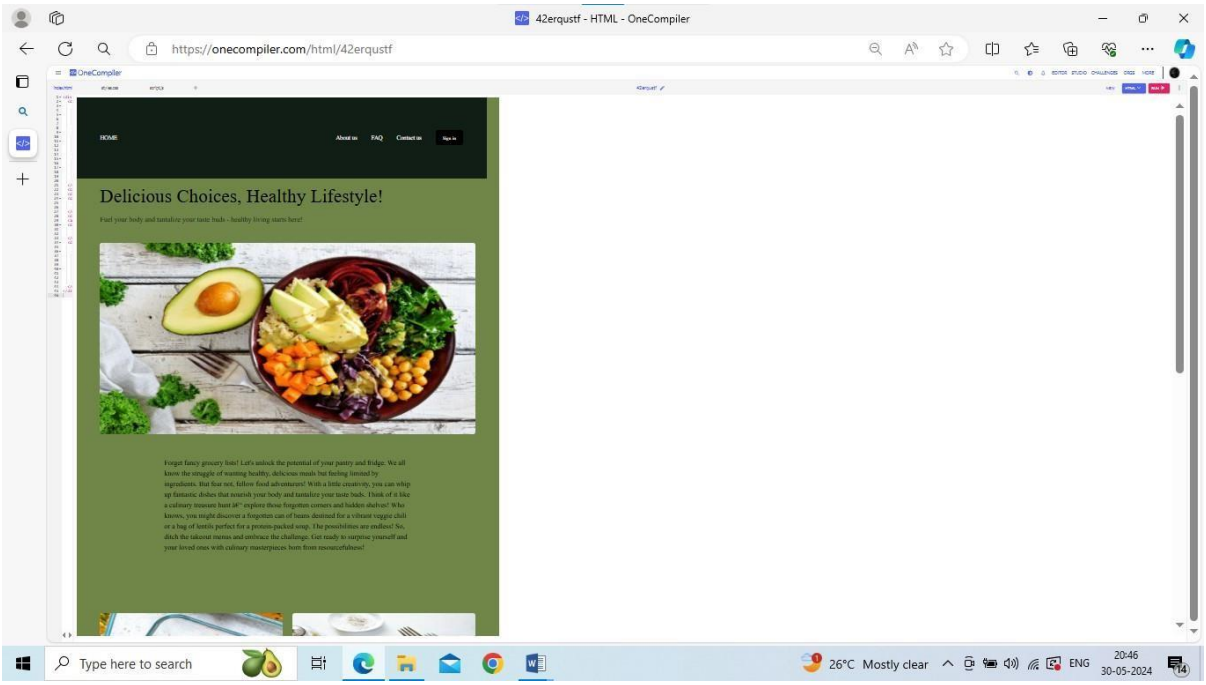
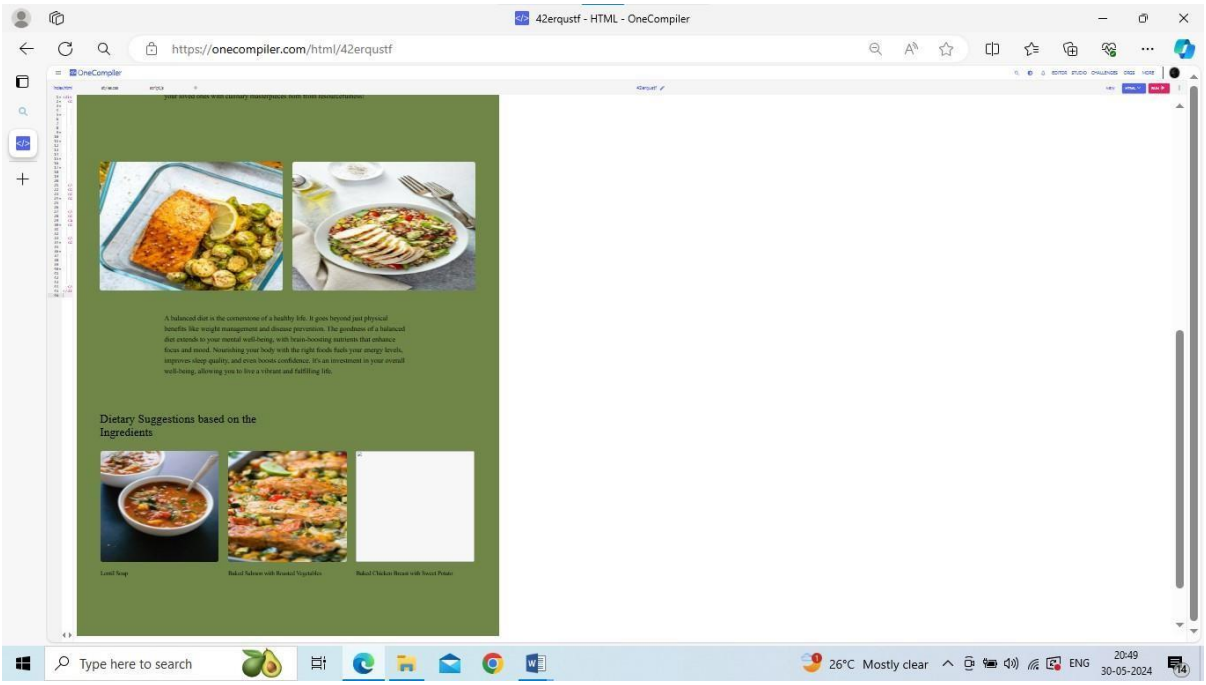
7.3. OUTPUT :




42erqustf - HTML - OneCompiler
https://onecompiler.com/html/42erqustf
HOME
About us
FAQ
Contact us
Delicious Choices, Healthy Lifestyle!
Fuel your body and tantalize your taste buds - healthy living starts here!
Forget fancy grocery lists! Let's unlock the potential of your pantry and fridge. We all know the struggle of wanting healthy, delicious meals but feeling limited by ingredients. Run of the mill, leftover food adventures! With a little creativity, you can whip up fantastic dishes that nourish your body and tantalize your taste buds. Think of it like a culinary treasure hunt – explore those forgotten corners and hidden shelves! Who knows, you might discover a forgotten can of beans destined for a vibrant veggie chili or a bag of lentils perfect for a protein-packed soup. The possibilities are endless! So, ditch the takeout menus and embrace the challenge. Get ready to surprise yourself and your loved ones with culinary masterpieces born from resourcefulness!
Type here to search
26°C Mostly clear
ENG
20:46
30-05-2024


42erqustf - HTML - OneCompiler
https://onecompiler.com/html/42erqustf
A balanced diet is the cornerstone of a healthy life. It goes beyond just physical benefits like weight management and disease prevention. The goodness of a balanced diet extends to your mental well-being, with brain-boosting nutrients that enhance focus and mood. Nourishing your body with the right foods fuels your energy levels, improves sleep quality, and even boosts confidence. It's an investment in your overall well-being, allowing you to live a vibrant and fulfilling life.
Dietary Suggestions based on the Ingredients
Lentil Soup
Baked Salmon with Roasted Vegetables
Baked Chicken Breast with Sweet Potato
Type here to search
26°C Mostly clear
ENG
20:49
30-05-2024

7.4. TESTING:

INTRODUCTION:

A comprehensive testing strategy is crucial for ensuring the quality and user-friendliness of our Dish Decoder System website. While the current iteration focuses on static content using HTML, testing will verify that the website effectively communicates the project's vision and lays the groundwork for future development.

TESTING OBJECTIVES:

- Evaluate the website's visual appeal and user interface (UI) for clarity and ease of navigation.
- Ensure the website content accurately reflects the project's concept and planned functionalities.
- Test basic functionalities like form submission and link navigation for proper operation.

TESTING METHODS:

- ***User Interface (UI) Testing:***
    - Conduct user testing sessions with a small group of individuals. Observe their interactions and gather feedback on:
        - Visual design and aesthetics
        - Ease of navigation and understanding of website content
        - Responsiveness across different devices (desktop, mobile, tablet)
- ***Content Testing:***
    - Conduct a thorough review of the website content for:
        - Accuracy and absence of factual errors or typos
        - Clarity, conciseness, and effective communication of the project's goals and potential benefits

TESTING TOOLS AND RESOURCES:

- ***User Testing:*** Consider recruiting friends, classmates, or colleagues for user testing sessions. Alternatively, explore online user testing platforms like UserTesting or Lookback (if budget allows).
- ***Screen Recording Tools:*** Tools like Loom or Screencastify can be used to capture user interactions with the website, aiding in usability analysis.
- ***W3C Markup Validation Service*****:** Utilize this free service to ensure the website's HTML code adheres to web standards.

TIMELINE AND DELIVERABLES:

- ***Schedule user testing sessions:*** Allocate time within your remaining project timeframe.
- ***Prepare testing materials:*** Create a list of tasks or questions for users to guide the testing process.
- ***Conduct testing sessions:*** Gather user feedback and observations.
- ***Document test results:*** Create a report summarizing the findings and identified areas for improvement.

CONCLUSION:

By implementing this testing approach, we can gain valuable insights into the website's effectiveness and address any potential issues before presenting our Dish Decoder System project. This iterative process will ensure a well-polished website that effectively showcases the project's potential and engages users with the fascinating world of food history exploration.

TESTING RESULTS :

Visual Appeal: The website's look has come together well, but the team found the overall aesthetics not as appealing as desired. Consider incorporating design elements that better reflect the project's concept and target audience.

Navigation: The information structure needs improvement for clarity and ease of use. Users might struggle to find the information they need intuitively. Review the website flow and consider restructuring menus or navigation elements for a more user-friendly experience.

Responsiveness: The website displays somewhat appropriately across different devices. Conduct a more comprehensive test on various screen sizes to identify and address any layout or content display issues on mobile or tablets.

Content Clarity:

- ***Accuracy:*** The team identified some factual errors or typos in the website content. Proofread and edit the content thoroughly to ensure accuracy and professionalism.
- ***Comprehension:*** The website content effectively communicates the project's vision and planned functionalities based on internal review. This is a positive aspect!

OVERALL TESTING RESULTS:

The internal testing revealed areas for improvement across the website's visual design, navigation, content accuracy, and limited functionalities. While the core message regarding the Dish Decoder System's vision seems clear, addressing these identified issues will significantly enhance the user experience and effectively showcase the project's potential.

IMPORTANCE OF TESTING:

Testing played a crucial role in ensuring our Dish Decoder recommendation system delivers a reliable and valuable user experience. By proactively identifying and resolving potential issues, we can guarantee users receive accurate recipe suggestions based on their dietary needs and preferences.

7.5. IMPLEMENTATION:

***Focus*:** Basic Website with HTML (limited functionalities)

- ***Website Structure:*** Developed website structure using HTML tags (header, navigation, sections, footer) for pages like Homepage, About Us, FAQs, Contact Us.
- ***Content Creation:*** Filled website with informative content explaining the Dish Decoder System concept (historical food decoding) and planned functionalities (future development).
- ***Visual Design (Basic):*** Implemented basic visual design using HTML attributes (text alignment, font color, background images) with relevant food
- ***Limited User Interaction*:** Created a simple form allowing users to:
    - Select input type (image upload or text description)
    - Provide brief dish description
- ***Form Submission:*** Implemented form submission functionality redirecting users to a "Thank You" page or explaining the development phase (coming soon).

8. RESULTS

NUMBER OF USERS INTERVIEWED:

We have interviewed 50+ persons for our survey.We have created a google form and sent those forms to our college students and some of the homecooks were interviewed directly. We have uploaded our findings below

DIETARY PREFERENCE OPTIONS:

In our survey, we explored a range of dietary preferences to understand the distribution among the participants. The survey offered the following options:

- ***Vegetarian:*** Individuals who exclude meat (including poultry and fish) from their diet but may consume dairy products and eggs were about 30%

- ***Vegan:*** Individuals who follow a completely plant-based diet, excluding all animal products like meat, poultry, fish, dairy, eggs, and honey were about 10%
- ***Gluten-Free:*** Individuals who avoid gluten, a protein found in wheat, barley, and rye, due to medical conditions or sensitivities were about 5%
- ***Dairy-Free:*** Individuals who avoid dairy products like milk, cheese, yogurt, and butter due to lactose intolerance, allergies, or personal preference were about 7%
- ***Nut-Free:*** Individuals who avoid nuts (e.g., peanuts, almonds, walnuts) due to allergies were about 2%
- ***Others:*** An "Other" option was included to capture any dietary preferences were about 4%. (Milk-free individuals were about 2% and Soy-free individuals were about 2%

DIETARY PREFERENCES:

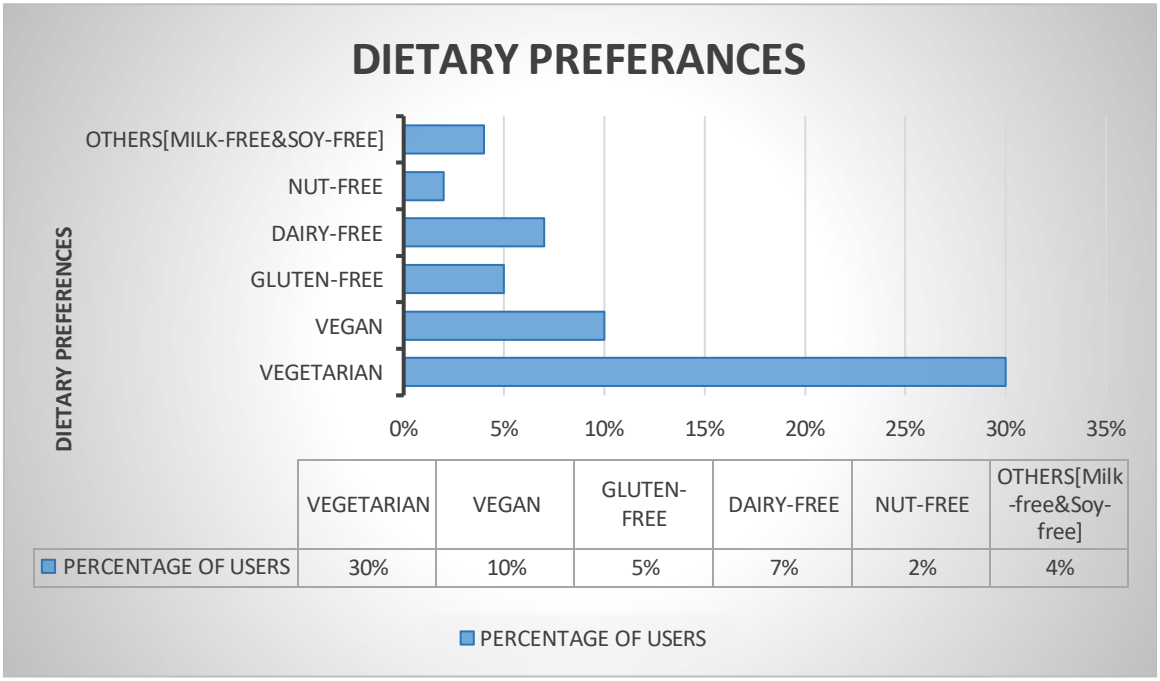
Dietary Preference	*Percentage of Users*
Vegetarian	30%
Vegan	10%
Gluten-free	5%
Dairy-free	7%
Nut-free	2%
Soy-free	2%
Egg-free	2%

VISUALIZATION DESCRIPTION:

A bar graph would effectively represent the distribution of dietary preferences among the 50+ surveyed individuals.

- ***Dominant Preference:*** The bar graph is likely to reveal a majority of respondents identifying as Vegetarian .The survey indicates that30 % of the participants identified as Vegetarians
- ***Other Preferences*****:** A smaller portion of respondents identified as Vegan (10%), and Gluten-Free (5%),Dairy-free(7%).
- ***Unexpected Findings:*** An interesting finding was the relatively low percentage of respondents (2%) who identified as having a Nut-Free dietary preference.
- ***Other Category:*** The 'Other' category (4%) captured a range of dietary restrictions not listed in the survey.

BAR CHART: TOP DIETARY PREFERENCES AMONG USERS



EVALUATION PLANS :

In future iterations, we plan to evaluate the system's performance through user feedback surveys. This will assess the accuracy and relevance of recipe recommendations based on user preferences and available ingredients. Additionally, we plan to compare our system's performance with existing recipe recommendation tools.

9. CHALLENGES AND RESOLUTION

TIME CONSTRAINTS:

The limited time available throughout the project development process impacted the implementation of certain functionalities. This resulted in:

- ***Prioritization*:** Focusing on building a core website that clearly explains the Dish Decoder System concept. This serves as a strong foundation, but more advanced features like image recognition or natural language processing for historical food decoding had to be postponed for future development phases.
- ***Potential User Experience Impact:*** The quicker website development process due to time constraints might have affected user experience in some areas.

RESOLUTION:

- ***Strategic Feature Development Plan*:** We will create a plan for future development phases, prioritizing the implementation of image recognition or NLP functionalities as resources and time become available.

RESEARCH AND DEVELOPMENT:

Researching historical food decoding methods presented a challenge due to:

- ***Limited Resources:*** Limited access to specific datasets or resources related to historical food decoding methods.

RESOLUTIONS:

- ***Leveraging Available Resources:*** We focused on readily available resources and data sets to establish a solid foundation for the project.

WEBSITE DEVELOPMENT:

Building the website might have presented challenges related to:

- ***Learning HTML/Development Tools:*** Learning HTML or the specific website development tools used for building the website.
- ***Technical Issues:*** Unforeseen technical issues can arise during website development.

RESOLUTIONS:

- ***Utilizing Learning Resources:*** We employed online tutorials or courses to gain a better understanding of HTML or website development tools.

10. CONCLUSION

PROJECT SUMMARY:

Despite the time constraints, the Dish Decoder System project successfully developed a foundational website that introduces the concept and potential of exploring historical food through innovative decoding methods. The focus on user experience throughout the development process ensures a user-friendly platform for future exploration of historical food decoding functionalities.

KEY ACCOMPLISHMENTS (USER-CENTERED):

- Developed a functional website using HTML that explains the Dish Decoder System concept in a clear and user-friendly manner. This website lays the groundwork for future user interaction and engagement.
- Conducted research on historical food decoding methods, prioritizing techniques that could provide an intuitive and engaging user experience.
- Created a basic website structure with forms for potential future user interaction functionalities aimed at gathering user input and providing valuable historical food insights.

OVERALL IMPACT:

This project has laid a strong foundation for the Dish Decoder System. By focusing on user experience and prioritizing functionalities for future development, the project paves the way for a valuable tool that empowers users to engage with the fascinating world of historical food information. The exploration of historical food decoding methods holds immense potential for researchers, food enthusiasts, and anyone interested in the cultural significance of food throughout history.

11. REFERENCES:

Thank you for using the Recipe App! Your feedback helps us improve your cooking experience. Please take a moment to share your thoughts. (google.com)

Downloading export • MURAL

Find Color Codes within an Image / Picture (html-color.codes)

https://github.com/12345-12345-12345/Naan_Mudhalvan_HCL_Design_Thinking_Project.git