JETIR.ORG

### ISSN: 2349-5162 | ESTD Year : 2014 | Monthly Issue



# JOURNAL OF EMERGING TECHNOLOGIES AND INNOVATIVE RESEARCH (JETIR)

An International Scholarly Open Access, Peer-reviewed, Refereed Journal

## DEITISTA: DIET BASED FOOD APPLICATION

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Abstract: Dietista is an innovative online platform revolutionizing the food ordering experience by offering customers a convenient and healthy way to order meals tailored to their specific dietary needs. Our user-friendly interface allows customers to effortlessly browse through our menu, select meals, and place orders quickly. Unlike other food ordering websites, Dietista empowers customers by providing detailed nutritional information for each item, enabling them to make informed choices that align with their dietary goals, whether it's achieving a calorie surplus, deficit, low-carb, high-protein, or other options. Our meals, meticulously designed by experienced nutritionists and chefs, cater to various dietary requirements, ensuring a balanced and nourishing dining experience. Additionally, our blog section offers informative articles on nutrition and healthy living, fostering a community dedicated to embracing a new, healthier food lifestyle.

#### I. INTRODUCTION

The global rise in obesity rates, particularly in developed nations like the United States and the United Kingdom, has reached alarming levels, posing significant public health challenges. Obesity is intricately linked to a myriad of long-term health issues, including diabetes, heart disease, stroke, and various cancers, contributing to premature death and illness. According to the World Health Organization, the primary cause of obesity is an imbalance between the calories consumed and those expended. In response to this pressing health concern, there has been a notable shift in societal attitudes towards health and fitness, with individuals increasingly prioritizing nutritious food choices. Recognizing this evolving trend, Dietista emerges as a pioneering platform dedicated to addressing the growing demand for healthy eating options. At Dietista, we understand that achieving and maintaining a healthy weight requires more than just willpower; it necessitates access to personalized nutritional guidance and support.

Dietista seeks to empower individuals by providing them with a comprehensive solution to navigate their dietary needs effectively. Our platform goes beyond merely offering a menu of healthy meal options; we strive to equip our users with the tools and knowledge necessary to make informed decisions about their nutrition. Central to our mission is the integration of technology to facilitate this process seamlessly. Through Dietista, users can assess their current health status by checking their Body Mass Index (BMI) and determining whether they need to adopt a calorie deficit or surplus diet. This personalized approach allows individuals to tailor their meal selections according to their specific dietary requirements, ensuring optimal calorie management. By offering detailed nutritional information for each menu item, including total calorie counts, Dietista empowers consumers to track their daily calorie intake accurately.

Furthermore, Dietista recognizes that dietary preferences vary widely among individuals. Therefore, we offer a diverse range of meal plans catering to various dietary needs, including high-protein, vegan, and vegetarian options. Our commitment to inclusivity ensures that everyone can find suitable meal choices that align with their lifestyle and health goals.

In essence, Dietista represents more than just a food ordering platform; it embodies a holistic approach to promoting healthier eating habits and fostering a culture of well-being. Join us on this transformative journey towards better nutrition and improved health outcomes.

#### II. EXISTING METHODS

**MyFitnessPal** - It is a popular mobile app and website that offers calorie tracking, exercise logging, and personalized meal plans. It provides a comprehensive database of food items, allowing users to easily track their calorie intake and monitor nutritional values. Users can set goals, track progress, and connect with a supportive community for motivation.

Demerits: Some users find the interface overwhelming, and the accuracy of the food database may vary. Additionally, the free version includes ads, and some features require a premium subscription.

**Lose It!** - It is another widely-used app for tracking calories and achieving weight loss goals. It offers features such as barcode scanning for easy food logging, personalized meal plans, and exercise tracking. Users can set goals, receive personalized recommendations, and join challenges for added motivation.

Demerits: Similar to MyFitnessPal, the accuracy of the food database can be inconsistent, and some users report issues with syncing data across devices. The free version includes ads, and premium features require a subscription.

**Weight Watchers** (**WW**) - It offers a holistic approach to weight loss and healthy living. It provides a points-based system for tracking food intake, along with support from coaches and a community of users. It also offers personalized meal plans, recipes, and workshops on nutrition and wellness.

Demerits: While WW has a loyal following, some users may find the subscription cost prohibitive. Additionally, the points system may not suit everyone's dietary preferences, and the focus on weight loss may not align with everyone's goals.

**Fitbit** - It is known for its activity trackers, but it also offers a companion app with features for tracking nutrition and weight management. Users can log food, track water intake, and monitor calorie burn through exercise. It integrates with other health apps and devices, providing a comprehensive overview of health and fitness data.

Demerits: While Fitbit offers a range of features, some users may find the interface confusing or overwhelming. The accuracy of calorie tracking may also vary, and certain features require a premium subscription.

#### III. CONCLUSION

In conclusion, Dietista can emerge as a groundbreaking application in the personalized nutrition space, leveraging advanced technology and deep nutritional knowledge to tailor food suggestions perfectly suited to individual dietary goals and preferences. Utilizing machine learning algorithms and an extensive nutritional database, Dietista ensures that each user's food choices align with their specific health objectives, including weight management, muscle gain, and overall wellness, while also accommodating unique dietary needs such as allergies and food intolerances. The application not only enhances user engagement through a user-friendly interface and tools like meal planning and progress tracking but also encourages sustainable, informed dietary habits.

The ongoing development of Dietista highlights the crucial role of interdisciplinary collaboration among dietitians, technologists, and behavioral scientists in creating scientifically valid and practically adoptable dietary recommendations. As we advance, continual user feedback and research are essential for further refining Dietista's capabilities, reinforcing its role as an indispensable asset in the pursuit of better health through personalized nutrition. This positions Dietista not just as a technological innovation, but as a significant contributor to the future of public health, adapting to evolving dietary needs and the advancements in digital technology to make healthier eating accessible to a broader audience.

#### IV. REFERENCES

- [1] G. Agapito, M. Simeoni, B. Calabrese, I. Caré, T. Lamprinoudi, P. H. Guzzi, A. Pujia, G. Fuiano, and M. Cannataro, "DIETOS: A dietary recommender system for chronic diseases monitoring and management," Comput. Methods Programs Biomed., vol. 153, pp. 93–104, Jan. 2018.
- [2] M. Behzadian, R. B. Kazemzadeh, A. Albadvi, and M. Aghdasi, "PROMETHEE: A comprehensive literature review on methodologies and applications," Eur. J. Oper. Res., vol. 200, no. 1, pp. 198–215, 2010.
- [3] D. Bianchini, V. De Antonellis, N. De Franceschi, and M. Melchiori, "PREFer: A prescription-based food recommender system," Comput. Standards Inter., vol. 54, pp. 64–75, Nov. 2017.
- [4] V. Espín, M. V. Hurtado, and M. Noguera, "Nutrition for elder care: A nutritional semantic recommender system for the elderly," Expert Syst., vol. 33, no. 2, pp. 201–210, 2016
- [5] L. Yang, C.-K. Hsieh, H. Yang, J. P. Pollak, N. Dell, S. Belongie, C. Cole, and D. Estrin, "Yum-Me: A personalized nutrient-based meal recommender system," ACM Trans. Inf. Syst., vol. 36, no. 1, p. 7, 2017.
- [6] T. Cioara, I. Anghel, I. Salomie, L. Barakat, S. Miles, D. Reidlinger, A. Taweel, C. Dobre, and F. Pop, "Expert system for nutrition care process of older adults," Future Gener. Comput. Syst., vol. 80, pp. 368–383, Mar. 2016.
- [7] F. Rehman, O. Khalid, N. ul Haq, A. ur Rehman Khan, K. Bilal, and S. A. Madani, "Diet-right: A smart food recommendation system," KSII Trans. Internet Inf. Syst., vol. 11, no. 6, pp. 2910–2925, 2017.
- [8] C. Trattner and D. Elsweiler, "Food recommender systems: Important contributions, challenges and future research directions," Nov. 2017.

