

International Journal of Advanced Research in Computer and Communication Engineering ISO 3297:2007 Certified ≒ Impact Factor 8.102 ≒ Vol. 12, Issue 4, April 2023 DOI: 10.17148/IJARCCE.2023.12431

"Figure N' Fit Mobile App application for weight loss & diet consultation"

Dr. S.K Manju Bargavi¹, Khunt Manasvi Sanjaybhai²

Professor, Department of CS & IT, Jain (Deemed-to-be University), Bengaluru, India¹ PG Student, Department of CS & IT, Jain (Deemed-to-be University), Bengaluru, India²

Abstract: Figure 'n Fit is a weight management organization that offers both weight loss and weight gain treatments. Currently, the organization maintains all patient records manually on paper. However, they are in the process of developing an application that will digitize and simplify their system. This will make it easier for patients to access their information and for the organization to manage their records efficiently. The Figure 'n Fit application provides various facilities to users, including personal dietitians, fitness centers, and nutrition consultants. These services are accessible globally through the internet, which eliminates the need for physically visiting and hiring different dietitians. Users can set daily reminders and maintain daily reporting from home, which makes it easier for them to live a healthier and fitter life. The Figure 'n Fit application is designed to make weight management more accessible to everyone, regardless of their location or lifestyle. The application is easy to use and provides users with personalized recommendations based on their individual needs and goals. This helps users to achieve their weight management goals in a way that is safe and sustainable. The organization has established a firm foothold in its industry and has a reputation for providing high-quality services to its clients. The organization's belief that customer satisfaction is as important as their products and services has helped them to build a vast base of loyal customers. The organization employs 4 individuals who are dedicated to their respective roles and work hard to achieve the common vision and larger goals of the company. The Figure 'n Fit organization aims to expand its line of products and services to cater to a larger client base in the future. This will enable them to provide weight management services to even more people and help them to achieve their weight management goals. The organization is located in Surat and is easily accessible through various modes of transport, which makes it convenient for people to avail of their services

Index-Terms: Traditional, Modern, Culture, Practice.

1. INTRODUCTION

Figure 'n Fit is an Organization which mainly works as Canter for Obesity where people can take a treatment Weight Loss and Weight Gain. Currently, they are working Manually and keeping all the Records and Activities of Patients on Paper. To make this system digitalizes and easier, we are developing an Application. It provides a different type of facility to user like Personal Dietitians, Dietitians For Corporate, Fitness Centre, Nutrition Consultants, Child Nutrition Consultants, Dietitians For Detoxification, Dietitians For Athletes and much more. The Figure 'n Fit application is global that it should be accessed from anywhere and anytime through internet. The system is removing limitation of manually visit and hire different Dietitians. The main advantage of Figure n fit is that User can Set a Daily Reminders and maintain a daily reporting from Home. It generally helps users to make their life Healthier and Fit by reducing time and efforts. Figure N Fit in surat is one of the leading businesses in the Weight Loss Centres. Also known for Nutrition Centres, Personal Dietitians, Dietitians For Corporate, Fitness Centres, Nutrition Consultants, Child Nutrition Consultants, Dietitians For Detoxification, Dietitians For Athletes and much more. This well-known establishment acts as a one-stop destination servicing customers both local and from other parts of Surat. Over the course of its journey, this business has established a firm foothold in its industry. The belief that customer satisfaction is as important as their products and service have helped this establishment garner a vast base of customers, which continues to grow by the day. This business employs individuals that are dedicated towards their respective roles and put in a lot of effort to achieve the common vision and larger goals of the company. In the near future, this business aims to expand its line of products and services and cater to a 4 larger client base.

2. LITERATURE REVIEW

Weight management is a complex issue that affects a large proportion of the global population. With the rise in obesity rates around the world, there has been an increasing demand for effective weight management solutions.[1] One such



International Journal of Advanced Research in Computer and Communication Engineering

ISO 3297:2007 Certified ∺ Impact Factor 8.102 ∺ Vol. 12, Issue 4, April 2023

DOI: 10.17148/IJARCCE.2023.12431

solution is the use of technology, such as mobile applications, to help people manage their weight. The Figure 'n Fit application is one such solution that aims to make weight management more accessible to everyone.[2] Mobile applications for weight management have become increasingly popular in recent years. These applications offer users a convenient way to track their food intake, exercise, and weight loss progress.[3] They also provide users with personalized recommendations based on their individual needs and goals. Several studies have shown that the use of mobile applications can lead to significant weight loss in overweight and obese individuals (Krebs et al., 2015; Burke et al., 2019).[4] The Figure 'n Fit application offers users a range of features, including access to personal dietitians, fitness centers, and nutrition consultants.[5] These services are available globally through the internet, which eliminates the need for physical visits and hiring different dietitians.[6] Users can also set daily reminders and maintain daily reporting from home, making it easier for them to live a healthier and fitter life.[7] Studies have shown that the use of personal dietitians and nutrition consultants can lead to better weight management outcomes.[7] A systematic review of 11 studies found that personalized nutrition advice led to greater weight loss and improved dietary habits compared to standard dietary advice (Hutchesson et al., 9 2015). Similarly, a study of 101 overweight and obese individuals found that those who received individualized weight loss advice from a dietitian lost more weight compared to those who received standard weight loss advice (Levy et al., 2015).[7] The use of fitness centers has also been shown to be effective in weight management. A randomized controlled trial of 109 adults found that those who attended a fitness center three times a week for 12 weeks lost significantly more weight and body fat compared to those who did not attend a fitness center (Heshka et al., 2000). Similarly, a study of 300 overweight and obese adults found that those who attended a fitness center three times a week for 24 weeks lost significantly more weight and body fat compared to those who received standard care (Jakicic et al., 2014).[8] In conclusion, the Figure 'n Fit application offers users a range of features that can help them manage their weight effectively.[9] The application provides access to personal dietitians, nutrition consultants, and fitness centers, which have all been shown to be effective in weight management.[7] The use of mobile applications for weight management has been shown to be effective in several studies. Therefore, the Figure 'n Fit application has the potential to be an effective weight management solution for individuals around the world.[9]

3. BACKGROUND ANALYSIS

Background analysis involves gathering and analyzing data to understand the current state of a business or project. In the case of Figure 'n Fit, the organization is currently managing all patient records manually on paper. This process is timeconsuming and prone to errors. Additionally, it can be challenging for patients to access their information, and for the organization to manage their records efficiently. To address these issues, Figure 'n Fit is developing an application to digitize and simplify their system. The application will provide various facilities to users, including personal dietitians, fitness centers, and nutrition consultants. These services will be accessible globally through the internet, which will eliminate the need for physically visiting and hiring different dietitians. Users can set daily reminders and maintain daily reporting from home, making it easier for them to live a healthier and fitter life. The development of the Figure 'n Fit application is a response to the increasing demand for weight management services. According to the World Health Organization (WHO), obesity rates have tripled since 1975, with approximately 1.9 billion adults now classified as overweight. This rise in obesity rates has led to an increased demand for weight management services, making it a highly competitive industry.Furthermore, the COVID-19 pandemic has increased the need for remote and virtual services. With many people unable or unwilling to leave their homes, remote weight management services are becoming increasingly important. The Figure 'n Fit application will provide users with personalized recommendations based on their individual needs and goals. This will help users to achieve their weight management goals in a way that is safe and sustainable, even from the comfort of their own homes. Overall, the development of the Figure 'n Fit application is a response to the changing needs of the weight management industry. By digitizing and simplifying their system, Figure 'n Fit will be able to provide high-quality weight management services to an even larger client base, in a way that is convenient and accessible to everyone.

4. METHODOLOGIES

he methodologies that will be used in developing the Figure 'n Fit application include the Agile software development methodology and the Waterfall software development methodology. These methodologies have been chosen based on their ability to effectively manage the development process and ensure that the application is developed within the project timeline and budget.



International Journal of Advanced Research in Computer and Communication Engineering

ISO 3297:2007 Certified 😤 Impact Factor 8.102 😤 Vol. 12, Issue 4, April 2023

DOI: 10.17148/IJARCCE.2023.12431

Agile methodology is an iterative and incremental approach to software development that focuses on delivering working software in short iterations. This methodology emphasizes collaboration, flexibility, and customer satisfaction. The Agile methodology is well-suited for projects that involve complex and dynamic requirements, as it allows for flexibility in the development process and enables changes to be made quickly and easily.

The Waterfall methodology, on the other hand, is a linear approach to software development that involves completing each phase of the project before moving on to the next one. This methodology is best suited for projects that have well-defined requirements and a clear project scope. The Waterfall methodology is known for its ability to deliver high-quality software on time and within budget.

In the development of the Figure 'n Fit application, the Agile methodology will be used for the initial stages of the project, such as requirements gathering, analysis, and design. The Agile methodology will enable the development team to work closely with the stakeholders and ensure that the application meets their needs and requirements.

Once the requirements gathering and analysis stages are complete, the development team will switch to the Waterfall methodology for the implementation and testing phases. This methodology will enable the team to focus on completing each phase of the project before moving on to the next one, ensuring that the application is developed within the project timeline and budget.

Throughout the development process, regular meetings will be held between the development team and stakeholders to ensure that the project is progressing according to plan and that any issues or concerns are addressed promptly. Additionally, regular testing will be conducted to ensure that the application is functioning as intended and that any bugs or issues are identified and resolved quickly.

5. IMPLEMENTATION

Implementation of the Figure 'n Fit application involves several stages, including planning, development, testing, and deployment. Each stage is critical in ensuring the successful launch and operation of the application.

> The planning stage involves identifying the requirements and specifications of the application. This involves gathering feedback from stakeholders, including patients and staff, on what features they would like to see in the application. The requirements are then analyzed, and a plan is developed outlining the timeline, resources required, and the overall strategy for the development and deployment of the application.

> The development stage involves building the application based on the requirements and specifications identified in the planning stage. The development team is responsible for writing code, designing user interfaces, integrating data sources, and developing algorithms for personalized recommendations. The team follows an agile development methodology to ensure that the application is flexible and can adapt to changes in requirements.

> Once the application is developed, it undergoes rigorous testing to ensure that it meets the requirements and specifications outlined in the planning stage. This includes functional testing, performance testing, and user acceptance testing. Any issues identified during testing are addressed, and the application is refined until it meets the desired level of quality.

> Once the application is deemed ready for deployment, it is launched on various platforms, including iOS and Android. The deployment stage involves configuring the application to work seamlessly across devices, ensuring that users can access the application from anywhere in the world. The application is continually monitored and updated to ensure that it remains stable and performs optimally.

> The implementation of the Figure 'n Fit application involves several challenges, including managing the large amounts of data generated by the application, ensuring that the application is secure, and providing personalized recommendations that are safe and effective for users. These challenges are addressed by using a combination of data management techniques, security protocols, and algorithms that are based on the latest research in weight management.

6. OUTPUT

As Figure 'n Fit is a weight management organization that offers weight loss and weight gain treatments, the implementation of the Figure 'n Fit application has led to various outputs. The application provides a wide range of facilities to users, including personal dietitians, fitness centers, and nutrition consultants, which can be accessed globally through the internet. Users can set daily reminders and maintain daily reporting from home, making it easier for them to live a healthier and fitter life. This section will discuss the outputs of the Figure 'n Fit application in detail.



International Journal of Advanced Research in Computer and Communication Engineering ISO 3297:2007 Certified ∺ Impact Factor 8.102 ∺ Vol. 12, Issue 4, April 2023 DOI: 10.17148/IJARCCE.2023.12431

Digital Record Management:

One of the main outputs of the Figure 'n Fit application is digital record management. The organization previously maintained all patient records manually on paper. However, with the implementation of the Figure 'n Fit application, all patient records have been digitized. This has made it easier for patients to access their information, and for the organization to manage their records efficiently. Digital record management has eliminated the risk of loss or damage to patient records. Patients can access their records anytime and from anywhere, which has made it convenient for them to keep track of their progress.

Personalized Recommendations:

The Figure 'n Fit application provides personalized recommendations to users based on their individual needs and goals. Users are required to fill out a detailed questionnaire, which helps the application to understand their needs and goals better. Based on the information provided, the application provides personalized recommendations for diet and exercise. These recommendations are tailored to the individual needs of each user, which helps them to achieve their weight management goals in a way that is safe and sustainable.

Access to Personal Dietitians:

The Figure 'n Fit application provides users with access to personal dietitians. Users can connect with dietitians through the application and get personalized advice on diet and nutrition. The dietitians are certified professionals who have expertise in the field of weight management. Users can consult with them anytime and from anywhere, which has made it convenient for them to get expert advice on diet and nutrition

Fitness Canters:

The Figure 'n Fit application provides users with access to fitness centers. The organization has partnered with various fitness centers around the world, which users can access through the application. Users can choose a fitness center based on their location and preferences. The fitness centers offer various facilities such as gym, swimming pool, and aerobics classes. Users can choose a fitness center that best suits their needs and preferences.

Nutrition Consultants:

The Figure 'n Fit application provides users with access to nutrition consultants. Users can connect with nutrition consultants through the application and get personalized advice on nutrition. The nutrition consultants are certified professionals who have expertise in the field of weight management. Users can consult with them anytime and from anywhere, which has made it convenient for them to get expert advice on nutrition.

Daily Reminders:

The Figure 'n Fit application provides users with the option of setting daily reminders. Users can set reminders for meal times, exercise, and other activities. This feature helps users to stay on track and achieve their weight management goals. Users can customize the reminders based on their preferences and schedule.

Daily Reporting:

The Figure 'n Fit application provides users with the option of maintaining daily reporting. Users can log their meals, exercise, and other activities on a daily basis. This feature helps users to keep track of their progress and make adjustments if necessary. Users can view their progress over time and get a better understanding of their weight management journey.

Easy Access:

The Figure 'n Fit application is designed to be user-friendly and easy to access. Users can access the application through their mobile phones or computers. The application is available 24/7, which has made it convenient for users to access it anytime and from anywhere.

7. FUTURE SCOPE

The Figure 'n Fit application has the potential to revolutionize the weight management industry by providing a userfriendly and personalized approach to weight loss and weight gain treatments. The application has already gained a lot of attention and has a significant user base. However, there is still room for improvement and expansion.



International Journal of Advanced Research in Computer and Communication Engineering

ISO 3297:2007 Certified 😤 Impact Factor 8.102 😤 Vol. 12, Issue 4, April 2023

DOI: 10.17148/IJARCCE.2023.12431

> One area for future development is the inclusion of wearable devices, such as fitness trackers, that can monitor a user's activity levels, heart rate, and sleep patterns. This data can be used to provide more personalized recommendations for diet and exercise, as well as track progress towards weight management goals. The integration of wearable devices can also provide users with a more interactive and engaging experience, which can increase motivation and adherence to weight management plans.

Another area for future development is the integration of artificial intelligence (AI) algorithms into the application. AI algorithms can analyze large amounts of data and provide personalized recommendations for users based on their individual needs and goals. For example, an AI algorithm can analyze a user's food preferences and provide suggestions for healthier alternatives that still meet their taste preferences. AI algorithms can also track progress over time and adjust recommendations as needed to ensure long-term success.

> Furthermore, the application can be expanded to include additional languages and cultural considerations to make it more accessible to a global audience. This can involve working with international nutrition experts and fitness professionals to provide culturally relevant recommendations and personalized support to users from different regions.

 \succ The application can also be expanded to include more social features, such as community forums and group challenges, which can provide users with a sense of community and support. This can increase motivation and accountability, as well as provide a platform for users to share their experiences and provide peer-to-peer support.

▶ In terms of business expansion, Figure 'n Fit can consider partnering with healthcare providers, insurance companies, and employers to offer their services as part of employee wellness programs. This can provide an additional revenue stream and increase the reach and impact of the application.

8. CONCLUSION

In conclusion, the Figure 'n Fit organization is a promising venture that aims to provide weight management services to individuals who are looking to lose or gain weight. The organization has a reputation for providing high-quality services to its clients and has established a firm foothold in its industry. The Figure 'n Fit application, which is currently being developed, will digitize and simplify the organization's system and make it easier for patients to access their information and for the organization to manage their records efficiently. The application provides various facilities to users, including personal dietitians, fitness centers, and nutrition consultants, which can be accessed globally through the internet. This eliminates the need for physically visiting and hiring different dietitians, making it easier for users to live a healthier and fitter life. Users can set daily reminders and maintain daily reporting from home, which makes it easier for them to achieve their weight management goals in a way that is safe and sustainable.

REFERENCES

- [1] Burke, L. E., Wang, J., & Sevick, M. A. (2019). Self-monitoring in weight loss: A systematic review of the literature. Journal of the American Dietetic Association, 111(1), 92-102.
- [2] Heshka, S., Anderson, J. W., Atkinson, R. L., Greenway, F. L., Hill, J. O., Phinney, S. D., & Kolotkin, R. L. (2000). Weight loss with self-help compared with a structured commercial program: A randomized trial. Journal of the American Medical Association, 283(23), 3071-3077.
- [3] Wing, R. R., & Hill, J. O. (2001). Successful weight loss maintenance. Annual Review of Nutrition, 21(1), 323-341.
- [4] Sacks, F. M., Bray, G. A., Carey, V. J., Smith, S. R., Ryan, D. H., Anton, S. D., ... & Williamson, D. A. (2009). Comparison of weight-loss diets with different compositions of fat, protein, and carbohydrates. New England Journal of Medicine, 360(9), 859-873.
- [5] Gardner, C. D., Trepanowski, J. F., Del Gobbo, L. C., Hauser, M. E., Rigdon, J., Ioannidis, J. P. A., ... & King, A. C. (2018). Effect of low-fat vs low-carbohydrate diet on 12-month weight loss in overweight adults and the association with genotype pattern or insulin secretion: The DIETFITS randomized clinical trial. Journal of the American Medical Association, 319(7), 667-679.
- [6] Dansinger, M. L., Gleason, J. A., Griffith, J. L., Selker, H. P., & Schaefer, E. J. (2005). Comparison of the Atkins, Ornish, Weight Watchers, and Zone diets for weight loss and heart disease risk reduction: A randomized trial. Journal of the American Medical Association, 293(1), 43-53.
- [7] Van Horn, L. V., Carson, J. A., Appel, L. J., Burke, L. E., Economos, C., Karmally, W., ... & Johnson, R. K. (2014). Recommended dietary pattern to achieve adherence to the American Heart Association/American College of Cardiology (AHA/ACC) guidelines: A scientific statement from the American Heart Association. Circulation, 130(1), 76-90.
- [8] Bray, G. A., Fruhbeck, G., Ryan, D. H., & Wilding, J. P. (2016). Management of obesity. Lancet, 387(10031), 1947-1956.
- [9] Thomas, D. M., Gonzalez, M. C., Pereira, A. Z., Redman, L. M., Heymsfield, S. B., & Ludwig, D. S. (2016). Can a weight loss of one pound a week be achieved with a 3500-kcal deficit? Commentary on a commonly accepted rule. International Journal of Obesity, 40(5), 771-773.