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IS 340

OpenFit – Collaborative Fitness App

ABSTRACT:

The objective of this project is to create the "OpenFit-Collaborative Fitness App" platform, which will encourage community involvement and support among users with various fitness objectives. The project's objectives, showcase its potential impact on the fitness community with the aid of numerous open-source concepts and open methodologies, and what tactics and strategies should be implemented for efficient project management are all covered in this article.

The main objective of OpenFit is to develop a community-driven fitness application that stands out from the rest of the competition. In order to create a sense of community, this app will allow users to work together, contribute, change, and share their exercise regimen, dietary advice, and progress reports. The paper will detail the principles guiding project management, with a focus on inclusivity, transparency, iterative development, and teamwork.

In order to ensure that all project-related documents and other information are shared publicly and not hidden, our main goal in developing an open-source project is to empathize with the focus on and maintain an accessible and open development process through platforms like GitHub. We want to keep things transparent and give it our all making it a top priority. Second, real-time communication among contributors is promoted by collaboration, which is primarily enabled through the use of forums, coding platforms, and other video conferencing programs. This will give rise to the concept of inclusivity, inspire people to build varied communities, recognize the worth of each unique contributor, and encourage individuals to form a diverse community.

Additionally, using a more iterative approach to development will facilitate regular releases that incorporate small enhancements based on user feedback. Utilizing that, we can then make sure that the fitness application evolves based on the demands of the user. This study highlights the significance of choosing an open-source license and advocating for open data standards to ensure the lifespan of the accessibility features and interoperability of the program. As a management team, we will incorporate community events like hakathongs to promote involvement, networking, and acknowledgment of our accomplishments. All things considered, this paper is going to

provide an in-depth foundation for comprehending the way the application leverages open source and its open working principles in order to develop an adaptable and cooperative fitness program that seeks to enable users to reach their health and fitness objectives in a motivating community.

INTRODUCTION

In a time when individual wellness and health are becoming increasingly important in an expanding digitally connected world around us, there is an enormous opportunity to transform the way individuals approach their well-being through technology. As someone who is involved with the fitness industry, I can personally attest to the skyrocketing desire for more specialized training routines and programs. Having said that, the concept of the "OpenFit-collaborative Fitness App," an open-source project intended with the objective of producing a dynamic and encouraging environment for all fitness enthusiasts, including those just starting their journey and those worldwide, will be greatly inspired by the power of collaborative communities. A lot of research has showcased that "the open source model provides multiple benefits to teams and organizations, including increased agility and flexibility, better code quality by design, cost-effectiveness, community support, and faster time-to-market for commercial products and services" [1]. I truly believe that having an open source project such as OpenFit through working with a community will help enhance the design as well as the functionality behind it. Especially since I want to develop a more community feeling for this fitness app, collaborative work within open source principles will help us transition the idea into our application which is one of our main goals. Not only that but using open source principles will become very beneficial when it comes to making progressive decisions within the application with the collective responses and ideas from everyone.

PURPOSE

OpenFit-Collaborative Fitness App is an application that will revolutionize the fitness app landscape. This app will be created in a way that aspires to a platform where collaboration and community-driven users will be given the opportunity to actively contribute. The way they contribute is in their interest as there are many ways such as sharing workouts, nutritional insights, and even progress updates to showcase what is working and what isn't for them. Not only this but they can collaborate with other individuals and even modify workouts and assist each other in their progress. OpenFit

platform will provide a more innovative fitness solution that goes beyond that one-size-fits-all approach we have been using for years, enabling users to customize their fitness experience based on their goals, fitness levels, and experience. With the focus on community personation and motivation and aid through collaboration with other individuals who share similar interests. The primary goal of this app is to break through the limitations of conventional fitness and innovate fitness solutions with the use of new technical and open-source principles.

Open source plays a pivotal role in the app's objectives by the idea of community collaboration. This model will allow and require a diverse group of contributors, which will include various individuals who excel in the development, fitness enthusiasts, and even nutrition experts to actively work on developing this app's features and objectives it will focus on. This will also assist the users when it comes to customizing the app's functionality to their specific goals. Overall open source isn't just a development model for this app but much more than that as it is the guiding philosophy that is leading the vision of creating a user-centric and collaborative fitness community in this app.

TARGET AUDIENCE

As a project manager, it is very crucial to fully understand the audience you intend for the project as the needs vary. In the fitness sector, having to know what to do or having the same repeated routine is one of the biggest challenges. a lot of times, individuals end up working out in the same way without anyone to advise them or support them as they work toward their objectives.OpenFit is designed for a vast variety of individuals ranging from never worked before to fitness enthusiasts and even athletes. Instead of paying a personal trainer, you can join a community where others share similar goals as you. This app is targeted at those individuals who really value community engagement, individuals looking for a place where people share their goals and work toward them together. Since this app will be developed through the use of open-source software, users will have access to the progressive feedback and the developers will constantly make modifications and customization with the feedback.

STRATEGY

Open collaboration will be very beneficial for managing this project as it will be an open-source project. "People from different backgrounds…co-create better products and services"[2] this will allow for different ideas to develop and also issues to be picked up on quicker before production. The development cycle will be conducted on an open

platform such as GitHub repository which will provide transparency through the entire process as it provides a great visibility with the project plans. To look into further collaboration, we will use collaborative coding platforms, forums, and even video conferencing tools to enhance real-time conversion through the development of this application.

I plan to use ReactJS as it is one of the more popular front-end libraries that will allow the developers to build more of a dynamic and interactive user interface for the OpenFit application. This is also beneficial for developers as they can reuse code and build other complex interfaces based on user feedback as the app progresses. One of the most appealing features that come across using ReactJS is that it integrates with react native whcih is the framework used for mobile development. It will allow Android and iOS devices access to audition as a mobile device [3]. When it comes to storing and managing data, I believe that PostgreSQL or MySQL will be the best to store and manage data that is coming in [4]. In specific cases, we can also branch out to databases like MongoDB if needed, this can be decided amongst collaborators and what the majority are comfortable with using and have more knowledge of. For Issue management, it will be beneficial to implement an issue-tracking system within GitHub where the community member will have the opportunity to report issues as well as suggest any other improvements for the app. Utilizing this with GitHub's project dashboard to visually manage the workstream so it is very easy for the project lead as well as contributors to see what is needed to fix and make progress upon. This will be very similar to what we used for quiz #2 and will provide more detailed tasks and descriptions for the contributors.

We will be using GitHub as our source for version control as it is what many users are familiar with. Version control is a very critical part of any open-source project. It is important for our project as well as we have as we have many users collaborating in this open-source project, it is crucial to keep the version up to date so individuals don't clash with each other. GitHub features such as forking, branches, assigning tasks, and issues will help with making progressive development without running into issues with other individuals' work and maintain a smooth process. Practices, as mentioned, will be implemented to maintain a stable main master branch while allowing other collaborators to develop new features and bug fixes on separate branches.

It is important to think about how the project will be handled how the OpenFit app will be run and how to maintain to sustain it over a long period of time. As we want to ensure the long-term sustainability of OpenFit, open-source licensing is valuable to maintain the app's functionality. If this project is being engaged with well and pretty frequently, the

success of that will likely continue for people to keep building upon that feedback in the future. That being said, a lot of the development of the OpenFit strategy is designed with open-source principles with respect to creating a transparent and collaborative environment. Things mentioned such as Issue management, version control, and suitability are implemented to ensure the success of the project and maintain the strong objectives of community engagement and users to actively take part in the evolution of this OpenFit fitness application.

COMMUNITY

As mentioned before this whole idea developed from my interest in fitness and technology. There is already a huge fitness community that is constantly working to improve and find ways to make working out and eating healthy more enjoyable and with the constant improvement of technology that is achievable. The next big step will be to find those who share the same interest in fitness as well as their desire to use technology to improve their fitness journey. There are a lot of people who do Health informatics which is a big community of people this project can benefit from as they have the knowledge about health as well as development. I think finding this community won't be hard in today's society as there are many people interested in technology and developing something to improve their daily lives. Also, community events and fitness challenges will help us engage with the community more. Things such as hackathons, or fitness challenges aren't just a good way to engage with the community more but also create a fun environment for people to join in on.

CONCLUSION

In conclusion, I have always had a passion for working out as well as making that more innovative with the use of technology. After learning about open-source software and what kind of resources it poses in Information Science 340 with Dr. Bradley Alicea, I am very excited to make that happen with the use of open-source principles. My app idea OpenFit principles was created upon the collaboration principle which is highly praised in open-source software, by using that idea I am excited to be able to receive help from other developers, user feedback, and constant improvement helping make the best version of this project. The open-source usage will ensure that the platform that was created will remain accessible and customizable according to the needs of the users. This itself will redefine how fitness will change in the future and make it more enjoyable for everyone. That being said the commitment to choosing this open-source software model wasn't just a development strategy in this project but looked more upon as a

guiding philosophy that aligned with the project's vision for producing a collaborative and user-focused fitness community app.

Links:

1. "Open Source Project Management: A Complete Guide." Open Source Project Management: A Complete Guide, www.zenhub.com/guides/open-source-project-management#:~:text=The%20open%20source%20model%20provides,for%20commercial%20products%20and%20services.

2. Pallister, B. (2023, February 27). What is Open Collaboration?. Innovolo. https://innovolo-group.com/innovation-en/innovation-terminology-en/what-is-open-collaboration/

3. React. (n.d.). https://react.dev/

   About | Node.js. (n.d.). Node.js. https://nodejs.org/en/about

4. "Compare." *Amazon*, River Transportation Division, Iowa Dept. of Transportation, 1981, aws.amazon.com/compare/the-difference-between-mysql-vs-postgresql/#:~:text=MySQL%20has%20limited%20support%20of,stored%20procedures%20in%20multiple%20languages.&text=MySQL%20supports%20numeric%2C%20character%2C%20date,spatial%2C%20and%20JSON%20data%20types.