Recicle+
Um respiro pro meio ambiente

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Abstract. *This article describes software about sustainable activities through the conquest and exchange of points to generate encouragement to realize charitable activities towards the environment.*
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1. Introduction

The preservation and restoration of the environment have been topics that have spread across various sectors of society, which have mobilized to raise awareness and support sustainability movements.

However, the proliferation of this idea has been very little encouraged among the masses. Therefore, this project aims to improve the connection between the user and a sustainable action, changing the way society perceives the act of preservation.

In view of this, this article aims to show how the implementation of a stimulus can be the necessary gateway to raising awareness about the care that should be taken when engaging in harmful actions, rather than supporting those who are truly committed to the restoration of nature.

2. Theoretical reference

2.1. Gamification, a contemporary strategy

The process of gamification or the application of game elements in real life aims to provide the user with a goal (Silva, 2022). Therefore, the use of this method can be highly beneficial and yield satisfactory results, as observed in studies on gamification (Zichermann & Cunningham, 2011). So, the implementation of an activity and reward system can improve user engagement.

In studies on how the influence of games can affect behavior through rewards (Fuchter et al., 2016), this concept can be used as a method to improve performance or increase motivation for specific activities.

Recicle+ primarily adopts gamification methods in its system to enhance user engagement with activities, thereby creating an environment that motivates users to perform tasks that contribute to the preservation and restoration of the environment.

2.2. Sustainability and awareness

One of the main challenges in integrating sustainable habits into society is transforming awareness into action. Often, those who engage in sustainability efforts for self-fulfillment represent a minority within society. Therefore, introducing new participants through external motivation could lead to an increase in individuals contributing to environmental preservation (Deci & Ryan, 2000).

3. Methodology

The interaction between society and sustainable actions has been steadily decreasing as society has become driven by the pursuit of something. Therefore, Recicle+ aims to provide an incentive for people to find motivation in practicing sustainable actions and, consequently, develop a connection with them.

Our goal is to raise awareness among the population about how sustainable habits improve quality of life while also being rewarding. As users engage in sustainable practices, they will have a purpose for these actions, which will, in turn, motivate them to continue performing such activities.

The development of the Recicle+ project began with a brainstorming session, during which it was determined that a website offering tasks for users to earn points and exchange them for rewards would have a significant impact on society. Consequently, a database was created with the necessary classes for the website's functionality, along with a registration system featuring CRUD operations in TypeScript to support database management.

For the development of Recicle+, a database was used to register users, track their actions, record material collection, and manage company partnerships with the service. The code was structured in TypeScript with an object-oriented approach. To enhance project organization, agile methodology tools such as Trello were used as a Kanban board, enabling task division among team members and making the development process more efficient.

4. References

[Deci and Ryan 2000] [Zichermann and Cunningham 2011] [Abrahamse and Steg 2013] [Fuchter et al. 2016] [Silva 2022]

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