The Eudaimonic Voyage

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The Eudaimonic Voyage project is a transformative initiative aiming to guide individuals toward a more fulfilling life, enhancing purpose alignment with work-life balance scores by an expected +15%. The four meticulously designed chapters leverage advanced algorithms to explore various dimensions of the user's life.

Chapter 1 initiates an immersive experience where user strengths, flow experiences, and interests are systematically gathered through Q&A sessions. Inspired by Ikigai and Positive Psychology, users intricately score each interest, considering pleasure, flow, and comfort. Providing a nuanced understanding of its their preferences.

Chapter 2 unfolds as a complex tapestry, utilizing **Genetic Algorithms** and **Merge Sort Algorithms** to navigate the intricate landscape of user attributes. At its core is a population creation algorithm with a challenging **O(n3)** complexity to compose a matrix, generating scored purpose paths based on user input. This algorithm encompasses a threefold nested loop, meticulously exploring strengths, flow, and interests. OpenAI dynamically interacts to generate purpose proposals. Next, user feedback shapes the evolutionary trajectory while being processed by tailor-made **Rating Algorithms** with **O(n3),** this are inspired by **Online Algorithms** to keep a same size population. In parallel, the Merge Sort Algorithm (**O(nlogn)**) iteratively arranges the population matrix, creating a harmonious interplay of computational efficiency and in-depth exploration.

Chapter 3 embarks on a real-world quest, employing a Traveling Salesman Algorithm and Google APIs to recommend places in London aligned with the user's interests. The algorithm identifies locations based on user-provided interests, selecting top-rated places through Google Places API. Images for six recommended places are printed, fostering a deeper connection between the user and their purpose. The **Traveling Salesman Algorithm**, with a complexity of **O(n!*n)**, designs an engaging and optimized route, enhancing the real-world exploration experience.

In the final chapter, the project delves into **Regression Analysis** to understand the relationship between work-life balance scores and various factors. A **Coefficient's Matrix,** calculated through matrix multiplication algorithms with a complexity of **O(n^3),** forms the basis for Linear Regression Analysis. The **Gradient Descent Algorithm (O(n))** identifies, as a parallel approach, the ideal coefficients for independent variables, further refining the analysis.

Throughout the project, a suite of algorithms is at play, from Genetic Algorithms and Merge Sort to Rating Algorithms, Traveling Salesman, Regression Analysis, Matrix Multiplications and Gradient Descent. What sets this project apart is the meticulous consideration of algorithmic complexities, ensuring a delicate balance between computational efficiency and in-depth exploration. The user's journey is not a mere sequence of experiences, but a purposefully crafted exploration guided by cutting-edge algorithms.

In conclusion, the Eudaimonic Voyage project transcends technological showcase boundaries to become a compassionate guide on the path to a more fulfilling life. Through strategic algorithmic interventions, it seeks to elevate work-life balance scores, offering users a tangible opportunity to redefine their purpose and priorities. The impact extends beyond the virtual realm, encouraging users to embark on a real-world quest aligned with their newfound sense of purpose.