**Habit Tracker - Abstract**

This project aimed to create a command-line interface (CLI) habit tracking application, allowing users to create, manage, and analyze their habits. This document provides an overview of the solution's content, concept, and a brief reflection on the development process.

Link to the Github Repository:

1. Solution Overview

The application was built using Python, and consists of several classes, including Habit, User, HabitTracker, and Analytics. The main functions include user registration, habit management, and habit analysis. The solution is modular, with each class and its methods focusing on a specific aspect of the application.

1. Accomplishments

Users can create, manage, and inspect their habits and analyze their progress over time. The solution is documented and the code is commented for understanding and maintenance.

1. Challenges and Lessons Learned

During the development process i encountered a few challenges related to code implementation, which required debugging and re-evaluating some of the initial design decisions. Especially the Object Oriented coding was a challenge for me, mostly i use script based python apllications like jupyter Notebooks. Also working with the JSON format was new to me, im mostly used to csv, mostly time-series analyses rather than a dictionary format like JSON.

1. Features

The Analytics class provides a valuable feature for users, enabling them to calculate the longest streak for a given habit or across all habits within a specific time frame. This allows users to track their progress and stay motivated to maintain their habits.

Additionally, the application's modular design promotes reusability and extensibility. As the application grows, new features can be added without disrupting the existing structure.

1. Conclusion

The development of the Habit Tracking CLI Application was a valuable learning experience. Despite some initial challenges, the final product is a functional and user-friendly tool for habit management and analysis. With the knowledge gained throughout this project, i am better prepared for future objext oriented python programming.