Project Charter Typing Speed Game

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1. Executive Summary

The Typing Speed Game is an online tool that allows users to practice typing code quickly and accurately. It focuses on coding syntax and challenges across various programming languages, providing a fun and interactive way for new and experienced developers to improve their typing skills.

Improving typing speed and accuracy is crucial for developers, as it directly impacts coding efficiency and productivity. By offering a targeted, coding-specific practice environment, this project helps developers reduce errors, write code faster, and ultimately become more proficient in their work.

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2. Project Goals

Publish a functioning MVP by 30.05. that at least supports:

- **A user-friendly interface**: A user-friendly interface for typing practice, designed for desktop with an intuitive layout and easy navigation.
- **Coding challenges:** Basic coding syntax challenges in at least one popular programming language (e.g., Python or JavaScript), with a minimum of 3 beginner-level exercises.
- **Typing tests:** Timed typing tests that track real-time accuracy and speed with a precise calculation.
- **Feedback system:** A feedback system that highlights typing errors and offers real-time suggestions for improvement with minimal delay (under 1 second).
- **Optional - User progress tracking**: User progress tracking that monitors typing speed, accuracy, and improvement over time, if time permits.

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3. Deliverables

Tangible Results:

1. **Deliverable 1 – Functional MVP (Minimum Viable Product)**
    - A working version of the Typing Speed Game that includes a user-friendly interface, coding challenges, timed typing tests, and error feedback.
2. **Deliverable 2 – User Interface (UI) Design**
    - A clean, responsive UI for desktop users, optimized for a smooth typing practice experience.
3. **Deliverable 3 – Typing Challenges**
    - A set of basic coding syntax challenges in at least one popular programming language (Python or JavaScript), available for users to practice. Typing challenges can either be time-based (15, 30 or 60 seconds) or words-based (25, 50 or 100 words)
4. **Deliverable 4 – Timed Typing Tests**
    - A feature that tracks real-time typing speed and accuracy with minimal error margin.
5. **Deliverable 5 – Feedback System**
    - A real-time feedback system that highlights errors and offers suggestions for improvement during typing tests.

Intangible Results:

1. **Deliverable 6 – Improved Typing Speed and Accuracy**
    - An increase in the users' typing speed and accuracy as a result of consistent practice.

2. **Deliverable 7 – Enhanced User Engagement**
    - Users will feel motivated and engaged through the challenges, real-time feedback, and progress tracking.
3. **Deliverable 8 – Market Awareness**
    - Awareness and potential user interest in the platform as a tool for developers to improve typing skills.

[OPTIONAL] Stretch Goal:

- **Stretch Goal – User Progress Tracking**
    - A system to track user progress, such as typing speed and accuracy over time, to help users visualize their improvement. This feature will be included if time permits.

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4. Business Case / Background

This project addresses the need for a tool that helps developers improve their typing speed and accuracy specifically for coding syntax. While there are many general typing platforms, there is a gap in tools focused on coding. This platform will help new and experienced developers type code more efficiently, saving time and reducing errors.

The idea originates from the typing training task bootcamp participants had before the start of the bootcamp. While the majority of existing tools focus on normal letters, during coding special signs are often used. Therefore, a solution which focuses on programming-specific typing is needed.

By improving typing speed and accuracy, the tool will reduce inefficiencies in coding, helping developers work faster and with fewer mistakes.

The target audience is developers who want to improve their typing skills. The platform will focus on coding syntax challenges, real-time feedback, and progress tracking, aiming to fill the gap left by general typing platforms.

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5. Scope and Exclusions

In-Scope:

- **Typing Practice Interface**: A desktop-only, user-friendly interface for practicing coding syntax.
- **Coding Syntax Challenges**: A set of coding challenges that focus on common programming languages (e.g., Python, JavaScript) and their specific syntax.
- **Timed Typing Tests**: Real-time tracking of typing speed and accuracy with feedback. The tests can either be word-based or time-based.
- **Error Feedback System**: A system to highlight typing errors and provide suggestions for improvement.
- **Responsive Design**: The user interface will be optimized for desktop, with no immediate plans for mobile support in the MVP.
- **Optional - User Progress Tracking** : A basic system for tracking user progress, including speed and accuracy over time, if time permits.

Out-of-Scope:

- **Mobile Version**: Development of a mobile app or mobile-specific features will not be included in the MVP.
- **Advanced User Features**: Features like social sharing, leaderboards, or collaboration will not be addressed in the initial version.
- **Multiple Programming Languages**: The platform will initially support only one or two popular programming languages (e.g., Python, JavaScript) rather than a wide range.
- **External Integrations**: Integrations with other platforms, such as social media or third-party APIs, will not be part of the MVP.
- **Website Tracking**: Detailed tracking of user behavior across the website (e.g., user session analytics, heatmaps, etc.) will not be included in the MVP.
- **JavaScript Libraries/Frameworks**: No JavaScript libraries or frameworks (e.g., React, Vue.js, Angular) will be used; the platform will be built using vanilla JavaScript and HTML/CSS. Unless you can argue against it.

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6. Project Team

Project Lead (PO):
Damien Grossniklaus - Responsible for overseeing the project. Acts as the main point of contact for stakeholders.

Core Team Members & Functions:
[To be filled]

Additional Stakeholders (e.g., legal, design, tech):
[To be filled]

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7. Measuring Success

MVP Delivery:

- **Acceptance Criteria**: MVP delivered by 30.05. with a user-friendly interface, coding challenges, timed typing tests, and error feedback.
- **Tracking**: Ensure all core features are implemented on schedule.

User Satisfaction:

- **Metric**: 80% of users report satisfaction with the interface and feedback system.
- **Tracking**: Gather feedback via a short survey after testing.

Typing Improvement:

- **Metric**: 60% of users show improvement in speed or accuracy from their first typing test to the final test within the same session.
- **Tracking**: Compare the results of the first and last test in each session, tracking speed and accuracy within that session.

Feature Functionality:

- **Metric**: 95% of users can successfully complete a typing test and receive accurate feedback.

- **Tracking**: Monitor user completion rates and feedback system accuracy.

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8. Resources

- https://monkeytype.com/
- https://www.youtube.com/watch?v=foMW4oVDQWg