Project Documentation

Project Name: P(AI)ano

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Project Background:

P(AI)ano was created as part of the CreativeCoding BIP program by Fulda.de. The BIP program aims to foster creativity and innovation through coding projects. The project is a creative and interactive musical experience implemented in Processing, allowing users to play piano sounds using their computer keyboard. The incorporation of AI-generated musical suggestions and the inspiration in Konkret Kunst adds an innovative aspect to the traditional piano experience.

Equipment Needed:

- Computer with Processing 4.3 installed

- Keyboard

- Sound system (speakers)

- Table and chair

Concept:

P(AI)ano combines traditional piano interaction with modern AI-generated musical suggestions. Users can play piano sounds using their computer keyboard, and the visual feedback enhances the interactive experience. The project explores the intersection of music, technology, and AI, providing users with a unique and inspiring way to engage with a digital piano.

Meaning:

P(AI)ano strives to redefine the boundaries of conventional piano applications by introducing a groundbreaking element: AI-generated musical suggestions. Unlike traditional piano software, which often confines users to predefined compositions, P(AI)ano empowers users to embark on a journey of melody exploration. By providing AI-generated suggestions, the project stimulates users to venture beyond familiar melodies, encouraging the discovery of novel sound combinations.

The primary goal is to foster creative expression in music. P(AI)ano seeks to inspire users to break free from the constraints of conventional musical structures and embrace a more experimental and personalized approach. The project becomes a catalyst for users to unleash their creativity, offering a canvas where every keystroke is an opportunity to compose, innovate, and express oneself through the language of music.

This synthesis of tradition and innovation creates a dynamic and inclusive platform that accommodates musicians of varying backgrounds and preferences.

Connection to Konkrete Kunst:

The design inspiration for P(AI)ano draws from konkret kunst, a form of concrete art emphasizing colored geometric shapes and non-representational forms.

Geometric shapes are strategically incorporated into the visual feedback of P(AI)ano, creating a synthesis of art and technology. The deliberate use of clean lines reflects the influence of Konkrete Kunst on the project's aesthetics.

The color palette employed in P(AI)ano is also a nod to the Konkrete Kunst movement. By adhering to a disciplined and harmonious selection of colors, the project aims to evoke a visual experience that is both engaging

and cohesive. The intentional arrangement of colors follows the Konkrete Kunst philosophy of creating compositions that are visually pleasing while maintaining a sense of objectivity.

Even the keyboard used (shown at the end) can be considered a contemporary manifestation of the art style.

In essence, P(AI)ano's connection to Konkrete Kunst integrates timeless principles into a modern and innovative musical experience.

AI Integration:

The integration of artificial intelligence (AI) within P(AI)ano redefines the user experience by introducing AI-generated musical suggestions. Drawing inspiration from the classical compositions of revered masters like Beethoven and Mozart, the AI algorithm contributes a layer of sophistication to the user's creative journey.

The AI-generated suggestions act as a virtual collaborator, offering users unique and personalized compositional ideas. By analyzing the patterns and structures found in the works of classical composers, the AI augments the user's creative process with a wealth of historical and stylistic knowledge. This integration is not about replication but rather about leveraging the essence of classical masterpieces to spark innovative musical expressions.

In essence, AI integration within P(AI)ano transcends the role of a mere tool; it becomes a co-creator, a source of inspiration, and a collaborator in the user's musical exploration. The harmonious blend of human creativity and artificial intelligence opens new horizons for musical expression, offering a transformative and enriching experience for users.
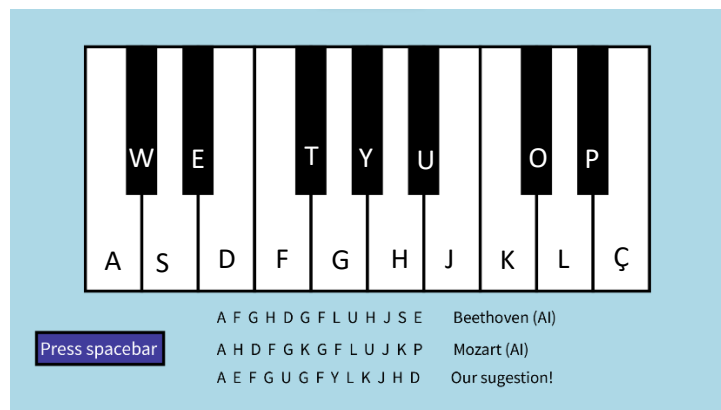
Conclusion:

P(AI)ano represents a unique fusion of traditional and modern musical experiences. By combining elements of konkret kunst and AI-generated suggestions, the project offers a dynamic and innovative platform for music enthusiasts and creative individuals.
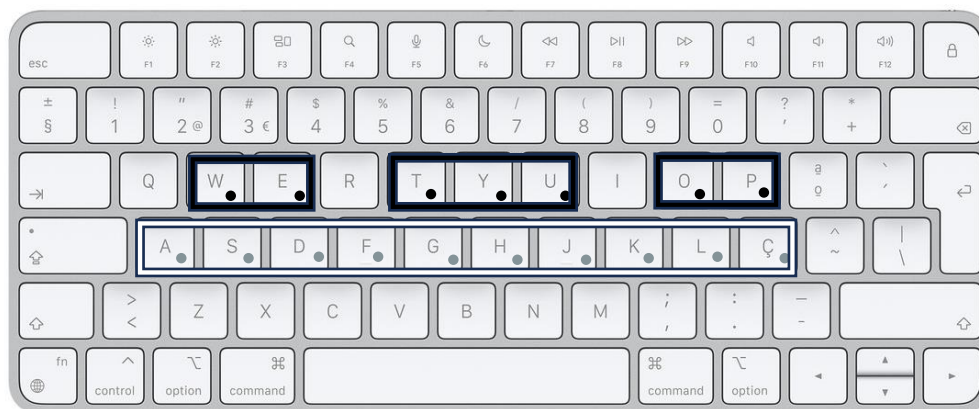
Keyboard details (IMPORTANT !!!):

Adaptation for German Keyboard:

Attention! The provided code was developed with consideration for the Portuguese keyboard layout. To ensure proper functionality, it is necessary to adapt the code for the German keyboard layout, if applicable. Be sure to adjust any specific keyboard references as needed to seamlessly integrate with the German keyboard.

➔ P(AI)ano with the respective keyboar keys.

➔ Portuguese keyboard with the indication of the piano keys.

It is necessary to change the code in the "FinalPiano" file according to the keyboard used. Here are the code lines that must be adapted:

| 21-38 | | 51 | | 59-86 | | 93 | | 101-119 | | 136-138 |

Exhibition details:

The setup would look something like this:

➔ Point of view for whoever is sitting on the chair.

The keyboard would look something like this (do not forget to adapt according to the keyboard used!):