In conceptualizing the 3D scene, the desire was to craft an environment that emanated warmth, intimacy, and familiarity. The setting of an indoor scene on a desk was selected for its universal resonance, serving as a nexus for work, reflection, and comfort. Each object chosen was not just for aesthetics but for the narrative they together weave. The candle, for instance, introduces warmth and ambiance, its glow casting a serene luminosity that adds depth to the scene. The cup, an emblem of the everyday, roots the environment in the tangible, while the expansive tabletop sets the primary stage for our ensemble of objects. The inclusion of a coaster, though subtle, emphasizes the meticulous attention to detail, suggesting a space that is lived-in and cherished.

Beyond the visual appeal, it was crucial to imbue the scene with interactivity to foster user engagement. A suite of navigational tools was incorporated to enrich user experience. Vertical movement with 'W' and 'S' offers diverse vantage points, while horizontal navigation with 'A' and 'D' enables nuanced exploration. The mouse wheel's zooming capability, paired with the left-click's rotational and right-click's panning features, ensures users can delve deep into the scene's intricacies or step back to absorb its entirety.

Underpinning this visual and interactive richness is a meticulously organized codebase. Adhering to coding best practices, the architecture was kept modular, with each function and object compartmentalized for clarity. This modularity, coupled with comprehensive annotations, ensures not just a streamlined development process but also a scalable and intelligible program. It paves the way for future enhancements and ensures any developer can understand and iterate upon it. In essence, the 3D scene is a harmonious blend of thoughtful design, user-centric functionality, and robust coding practices, aiming to resonate with users while providing a sturdy foundation for future development.

While the end result paints an almost seamless picture, the journey to actualize this 3D scene wasn't without many challenges. One of the primary hurdles faced was in the domain of texturing the objects. Despite having a clear vision of the desired look, translating this into the digital realm proved to be more arduous than anticipated. Achieving the correct balance between texture resolution and lighting was really challenging.

Furthermore, the entire project wasn't just about creating a scene; it was about mastering the tools and understanding the intricate web of dependencies. On multiple occasions, the project files would return errors, some of which were challenging to fix with their descriptions. These issues often boiled down to version discrepancies, missing assets, or syntax errors. Such setbacks, though initially frustrating, served as invaluable learning experiences. Each error became an opportunity to dive deeper into the software, engage with the class, and develop a more holistic understanding of the development environment.

Despite these obstacles, perseverance and an unyielding commitment to the envisioned outcome saw the project through. Each challenge surmounted only reinforced the foundational knowledge and expanded the skillset, preparing for even more ambitious endeavors in the future. Looking back, the journey underscored the importance of resilience in the face of adversity and the immense value of a supportive community and comprehensive resources.