# Study

KIDZANIA Mahindra Life Space Township Building studio

### TILTLABS



### executive summary

Kidzania sought to create an educational and entertaining 3D simulation for children to develop their sustainable township. Kids can choose from various building types and amenities to construct a complete Mahindra Life Space community, evaluating design choices and efficiency. The touchscreen experience spans 11 activity stages that test skills from planning to finalization.



## project challenges



#### Developing Age-Appropriate 3D Modeling Interactivity for 6+ Years

Balancing complexity with usability ensures children can engage with the simulation effectively without becoming overwhelmed by technical intricacies.

### Performance Optimization for Real-Time 3D on Target Hardware

Optimizing the simulation to run smoothly on the designated hardware, ensuring a seamless user experience without sacrificing visual quality or interactivity.



### Balancing Engaging Gameplay with Educational Content

Striking the right balance between fun and educational value to keep children entertained while also delivering meaningful lessons in urban design and sustainability.



### Meaningful Progress Tracking and Skills Measurement

Implement mechanisms to track children's progress accurately throughout the simulation, provide feedback on their design choices, and evaluate their understanding of sustainability concepts.



## goals & objectives



#### **Teach Children About Urban Design and Sustainability**

Educate children about urban planning principles, sustainable development, and environmentally friendly practices through interactive gameplay and hands-on experiences.

#### **Encourage Critical** Thinking Through **Choice Consequences**

Foster critical thinking skills by presenting children with choices in designing their township and showcasing the consequences of their decisions on the environment and community's well-being.

### **Promote Mahindra's Brand Values Around Green Technology**

Align the simulation with Mahindra's commitment to sustainability and green technology, promoting the brand's values and initiatives to a young audience engagingly and memorably.

#### **Captivate Audience Attention to Drive Return Visits**

Create an immersive and entertaining experience that captivates children's attention and leaves a lasting impression, encouraging them to revisit the simulation and further engage with the educational content.

## solutions & methodology

#### Intuitive 3D Environment and Asset Manipulation

Providing children with user-friendly tools to construct their township, allowing for easy manipulation of buildings and amenities.

### **Contextual Guidance and Performance Indicators**

Offering clear instructions and visual cues to guide children through the simulation and provide feedback on their decisions.

#### **Dynamic Badge and Certificate Generation**

Rewarding children for their achievements with virtual badges and certificates, encouraging continued engagement and learning.

### Seamless Hosting on Robust Cloud Infrastructure

Ensuring reliable performance and accessibility by hosting the simulation on robust cloud servers capable of handling high traffic and user interactions.



## project execution

### **Gameplay Prototyping & Storyboarding**

Initiated the project by creating initial prototypes and storyboards to outline the gameplay mechanics, user interactions, and overall flow of the simulation.

### **3D Model Creation**

Developed detailed 3D models of various buildings, amenities, and environmental elements required for the township, ensuring high-quality visuals and realistic representations.

### **Game Logic & Scoring Implementation**

Implemented complex game logic and scoring algorithms to enable interactive gameplay, track children's progress, and provide feedback on their design choices and sustainability efforts.

### **Cloud Services Integration**

Integrated the simulation with robust cloud infrastructure to ensure reliable performance, scalability, and accessibility, allowing for seamless hosting and management of user data and interactions.

#### **Testing & Polish**

Conducted thorough testing and refinement phases to identify and address bugs, usability issues, or performance concerns, ensuring a polished and optimized final product ready for deployment.





## outcomes & results

### High Engagement Measured by Average Session Duration:

Demonstrating the simulation's ability to captivate children's attention and keep them actively engaged in the learning process.

### Increased Brand Awareness for Sustainability Messaging:

Successfully promoting Mahindra's brand values around green technology and sustainability through the interactive exhibit.

### Strong Educational Impact Shown in Exit Surveys:

Evidencing the effectiveness of the simulation in conveying urban design and sustainability concepts to its young audience.

### Positive Feedback from Children and Parents:

Receiving praise and positive reviews from both children and parents for the educational and entertaining experience provided by the Township Building Studio.



### mahindra LIFESPACES

Building a home often disrupts the natural habitat and contributes significantly to carbon emissions. As a Green Army Architect, you can now thoughtfully craft a sustainable development by selecting sustainable measures and features leading to a healthier and more comfortable living environment.

### conclusion

The Township Building Studio leverages interactive technology to immerse children in sustainability concepts. By entertaining education, the 3D simulation left a strong impression on its young audience while cultivating an appreciation of urban design. The exhibit's resounding popularity is a testament to Kidzania's knack for innovation.



#### <u>Click to watch video</u>

## Thank You

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