Development Project Summary: Make-or-Break Group 5: Esat Duman, Jonathan Juarez, Kent Lizardo, Jose Tejeda

Introduction:

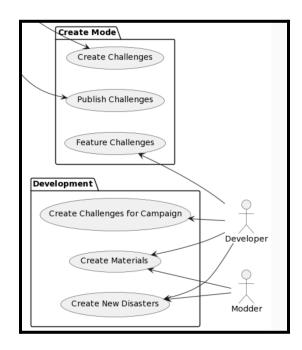
Make-or-Break is an application utilizing real-time physics simulations in order to test virtual building designs against the forces of nature. Make or break allows users to create, edit, and load real-world recreations of buildings and structures in the 3D environment. Users will be able to test their creations against the forces of nature, such as torrential rain and flooding, earthquakes, and extreme wind/tornadoes. While Make or Break is meant to be used for realistic simulations and structural planning, at its core it is still a game so the users will be able to enter a Challenge Mode. In challenge mode, users will be able to design and create structures in order to survive waves of challenges, varying from real world and fantastical. In addition to the challenge mode, users will also enjoy a 'Sandbox' Mode, granting them the freedom to design their buildings without budget limitations or disaster constraints, allowing for the formulation of personalized gameplay strategies. Make or Break is meant to inspire creativity, foster strategic thinking, and empower users to navigate the dynamic interaction of nature and architecture, Make-or-Break promises an immersive experience where innovation meets challenge, shaping the future of virtual construction and simulation gaming.

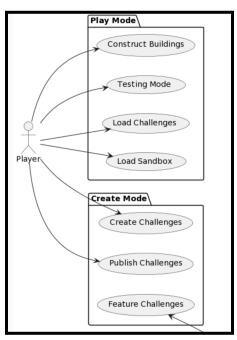
Make-or-Break provides a platform that empowers users to simulate and test the structural integrity of buildings against each of the various natural disasters. By offering a real-time physics simulation, Make or Break aims to **assist designers**, **engineers**, **and architects** in designing safer and more resilient structures.

The Scope of the Work

When considering the development and release of a game in today's mature gaming market, standing out is paramount. Many contemporary games rely on standard physics engines, but Make or Break seeks to innovate in this regard. We plan to utilize a physics engine that prioritizes realism, determinism, and accuracy, such as Havok or Jolt, or even explore the possibility of crafting our own engine specifically tailored for architecture and engineering. By focusing on authenticity and precision in our physics simulation, Make or Break is poised to offer players an unparalleled gaming experience. Moreover, understanding the current landscape and context of gaming, as well as the nuances of the working activities performed by players or teams, is crucial. This involves examining how our game interacts with its surroundings, partitioning work by business events and their responses, and understanding competing products to ensure our offering stands out in the market.

Post-release, the game should be able to be supported by Developers and from the community by Modders. Developers can Create Challenges for Campaign, Create Materials, and Create new Disasters, as well as Feature Challenges that will be seen in Create Mode. Modders can Create Materials and Create New Disasters.





Relevant Facts and Assumptions

Facts

- 1. Make-or-Break is a simulation application utilizing real time physics simulations for testing virtual building designs against natural forces.
- **2.** The application allows users to create, edit, and load real-world recreations of buildings and structures in a 3D environment.
- **3.** Users can test their creations against various natural forces such as torrential rain and flooding, earthquakes, extreme wind/tornadoes, among others.
- **4.** An estimated 38% of "dedicated PC gamers" use laptops as their main gaming device.

Assumptions

- 1. Users have access to a PC with specifications meeting or exceeding the minimum requirements for an optimal gaming experience.
- **2.** Make-or-Break does not depict real structures or contain any living entities; it is purely a simulation and gaming experience.