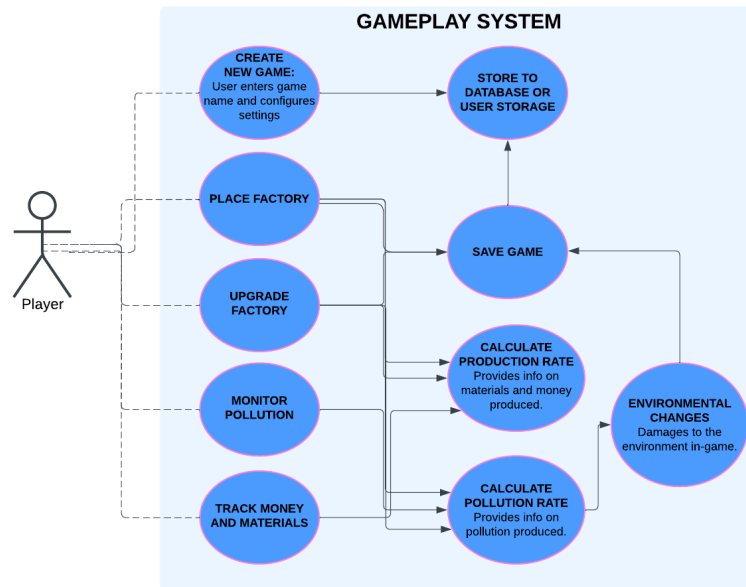


Project Requirements Report 2 Summary

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Product Use Cases

Our product's main set of use cases stems from the gameplay system requirements. These include: Creating a new game, placing a factory, upgrading a factory, monitoring pollution, and tracking money and materials. These cases lead to system operations such as saving and storing game data and calculating production and pollution rates.



Functional Requirements

The core functional requirements include new game initialization, calculating production rate, and calculating pollution rate. The rate calculations are essential for giving the player the correct amount of resources and triggering environmental effects.

Data Requirements

The most critical data requirement is saving the game. Game data must be saved to storage or a server database so that players can access their game later.

Performance Requirements

The application must be able to handle a few thousand players playing at the same time during peak hours. The game must also have as minimal lag as possible to improve the overall experience of the learning and playing. Ocean Inc. is an educational game so all of the information needs to be accurate making sure that the players actions and the outcome of those actions are working correctly.

Usability and Humanity Requirements:

Ocean Inc. focuses on an accessible and engaging user experience with intuitive features and inclusivity. Players can understand pollution mechanics and sustainability options quickly, with visible feedback on environmental decisions to encourage eco-friendly choices. Personalization options, like customizable names and logos, enhance engagement, while a tutorial and help menu provide quick onboarding. Clear language, visual cues, and polite prompts make navigation straightforward, and accessibility features, including colorblind settings and text-to-speech, ensure inclusivity. Comprehensive in-game and online documentation, along with tutorials, support all users, ensuring that anyone can enjoy and understand the game mechanics easily.

Look and Feel Requirements

Ocean Inc. features a 3D-isometric design with oceanic blue and green tones, using color-coded pollution indicators to enhance environmental awareness. The style is both fun and educational, appealing to a wide age range while highlighting industrial impacts on pollution. Feedback will confirm that at least 75% of players feel more informed about ocean pollution through the game's visuals and interactive elements.

The application will protect all user information used to log in to the game as well as their game data by a firewall or some other security system to prevent any malicious attacks from accessing the servers.

Maintenance

The game must be maintained by software developers because in order to become a successful game it will need to be constantly updated with new features/content. Additionally, developers will have to do exhaustive testing in order to fix/minimize bugs. Furthermore, the game will have many support methods for users and adaptability features so everyone can play the game.

Cultural, Political, and Legal Requirements

Since this is an education game it will have to be able to adapt to different cultures. Since anyone can download the game it will have to follow any regulations that different countries have. Additionally, we will have to get trademarks and make sure we don't copyright other games designs/features in order for the game to run smoothly. Furthermore, children will be able to access this game so we will adhere to the COPPA law and any other laws other countries may have.