

Project Business Case

Organization and Department

The world's smartphone user base is expected to reach 6.648 billion by 2022, representing 83.32% of the global population and for gaming, there are 1,798.6 million PC users and 158 million console users. Not everyone can afford a computer or a gaming system to play games. However, people must endeavor to play those games. It has been observed that porting or redesigning a video game allows the user to choose his own level of freedom from being constrained by a single platform. (It refers to the process of rebuilding a finished game for another platform. Once this process is complete, the game will run natively and fluidly in accordance with the requirements of the new platform.)

"PlayerUnknown's Battlegrounds", "Fortnite", "Call of Duty" are built around that strategy as in-game purchases are driving revenue for companies like Krafton, Activision Blizzard, and Take-Two Interactive. Developers have embraced one of the sector's most lucrative revenue streams: free-to-play games supported by in-game purchases.

So, Electronic Arts and Respawn Entertainment have announced plans to release a mobile version of their masterpiece Apex Legends. The approach entails redesigning a PC-compatible game with simplified controls and careful tablet and mobile optimizations. As a result, the hero shooter game on mobile platform will have a distinct player base. In-game microtransactions can improve gameplay and provide cosmetic upgrades. As a result, the business can find profit. Promotional collaboration events are an effective strategy for attracting new customers and re-engaging existing ones. Because of these factors, the project is compatible with the business strategy.

Requirements and Justification

Starting from scratch or writing an entirely new script may be significantly less expensive than redesigning a game for a new platform. We will need a research team or an expert for the platform justification on which the game will be built to port the game. The area available for rendering graphics and visuals on a mobile screen is limited. As a result, a skilled group of visual designers and animators will be required. After the visuals are completed, a game programmer and developer are brought in to rework the game's gameplay and control mechanism. A game tester should then test the game, reporting any bugs or glitches and ensuring that it runs smoothly on mobile.

Functional Requirements

- New and existing players must be able to sign up and log in on this page using their Google Play and App Store IDs.
- Because the game is an online multiplayer experience, an active database containing player information such as game stats and match history should be available.
- An "About" option with a description page that includes the mission statement, future goals and objectives, and game play instructions must be included in game settings.
- The game should include a payment mechanism that allows players to use a debit or credit card to make in-app purchases and microtransactions. Furthermore, payment security will be provided by a third party, such as the credit/debit card issued by the relevant bank.
- Other game functions will be the same as in the PC version.

Non - Functional Requirements

- The game should be available 24/7 so that players can access it at any time and from any location using any mobile phone. They only need a data connection and their credentials to log in.
- Game Servers are the most convenient way to provide a consistent multiplayer gaming experience to your players all over the world. It is critical to document what gamers require from the server. For e.g.
 - Socket Connections in Two Directions
 - Functionality of rooms/groups/lobbies
 - Making Connections
 - Validation of rules / Physics
 - Non-player AI components
 - Managing Latency
- The platform on which you release the game may have rules and regulations that you must follow, which may require you to revise gameplay, controls, or other aspects of the game.
- Game must work on iOS and Android devices.
- A background anti-cheat service that tracks and counters hacking in multiplayer games is required.
- There should be achievements, events and purchasable seasonal passes that reward players as they progress in the game with new accessories and other cosmetic rewards.

Solution and cost estimation

Resources	Cost (CAD)
Unreal Game Engine	Free
Project Management	750000\$
Server Installation and Maintenance	200000\$
Database Handling	100000\$
Game Visual Designers and Animators for 8 Months	400000\$
Game Programmer Team of 10 for 12 months	1200000\$
Game Tester	300000\$
	2.95 million CAD

Benefits of investing in this solution

- **New Player Base** - Because mobile gamers are getting tired of the same old gaming, we predict that there will be an increase in new consumer groups.
- **Higher revenue** - PC gamers are more inclined to make in-game purchases to improve their gaming experience. Likewise, mobile gamers may inherit this trend too.
- **Promotional collaboration events** - this is a beneficial strategy for attracting fresh entrants and re-engage existing ones