## **1. Introduction & Overview**

### **1.1 Problem Statement**

Gamers struggle to find a single, user-friendly platform where they can browse video games, consoles, and accessories, compare across platforms, and make quick purchases. Existing e-commerce sites are either too broad (general online stores) or lack intelligent recommendations. Also, our e-commerce website will provide unique statistical data for each game to boost customer satisfaction.

<https://ee5fc77b95d0407490eef3227e34fce6-main.projects.builder.my>

**How the Application should function:**

### **1.2 Proposed Solution**

BitByBit is an e-commerce application dedicated to gamers. It allows users to:

* Browse games, consoles, and accessories.
* Search by platform (e.g., PlayStation, Nintendo Switch).
* Add products to a cart with instant pop-out preview.
* Checkout after logging in or registering.
* Use a smart chatbot (powered by LangChain + RAWG API) for personalized recommendations, live player stats, and ratings  
  Application Design

### **1.3 Target Audience**

* **Primary:** Casual and hardcore gamers (ages 15–35) looking for an easy way to discover and buy games and consoles.
* **Secondary:** Parents or gift buyers seeking games or accessories with minimal effort.

## **2. Goals & Success Metrics**

### **2.1 Project Goals**

* **Usability Goal:** Users should be able to search for a game and add it to the cart in under 30 seconds.
* **Business Goal:** Establish BitByBit as a go-to platform for gaming products and achieve high engagement through chatbot recommendations.
* **Efficiency Goal:** Launch a Minimum Viable Product (MVP) with required features within one semester timeframe.

### **2.2 Success Metrics (KPIs)**

* **Daily Active Users (DAU):** Target 500+ within the first month of beta.
* **Cart Conversion Rate:** 30% of users who add items to cart should proceed to checkout.
* **User Satisfaction:** Maintain 4.5+ rating in app usability surveys.

## **3. Feature Requirements**

### **Required Features (Core Functionality – MVP)**

* Homepage navigation (Games, Consoles, Accessories).
* Login/Registration.
* Browse by platform (PS4, Switch, etc.).
* Product search (name, category).
* Add to cart (pop-out view with clear/remove options).
* Checkout flow.

### 

### **Desired Features (Improves Usability & Appearance)**

* Enhanced search filters (price range, genre, release date).
* Clean and responsive UI design (mobile-first).
* Cart saved across sessions (user can log out and return later).
* Sorting options (by popularity, rating, or price).
* Simple “recommended for you” section based on trending games.

### **Aspirational Features (Makes the App Stand Out)**

* Smart chatbot (LangChain + RAWG API) with live stats, reviews, and recommendations.
* Personalized recommendations based on browsing/purchase history.
* Wishlist/Favorites.
* Gamified loyalty points system for frequent buyers.

## **4. Out of Scope**

* Offline app mode.
* Multi-language support (future versions only).

## **5. Open Questions**

* What is the monetization model? (Direct sales only, or commission from third-party sellers?)
* Will payment processing be handled internally or through an external service (e.g., Stripe, PayPal)?
* Should the chatbot provide customer support (order tracking) in addition to game recommendations?