

GameVault CMS - Complete Setup and Deployment Guide

Overview

This is a complete PHP-based Content Management System for GameVault Winnipeg, built according to your Web Development 2 project requirements. The system includes all required features for managing games, users, categories, and comments.

System Requirements

- **XAMPP** (Apache, MySQL, PHP 7.4+ or 8.0+)
- **Web Browser** (Chrome, Firefox, Safari, Edge)
- **Text Editor** (VS Code, Notepad++, etc.) - optional for modifications

Project File Structure

```
gamevault/
├── config.php          # Database configuration & helper functions
├── index.php           # Homepage with game listings
├── game.php            # Individual game details page
├── auth/
│   ├── login.php      # User login page
│   ├── register.php   # User registration page
│   └── logout.php      # Logout script
├── admin/
│   ├── login.php      # Admin login page
│   ├── dashboard.php  # Admin dashboard
│   ├── games.php      # Game management (CRUD)
│   ├── categories.php # Category management
│   ├── users.php      # User management
│   └── comments.php   # Comment moderation
└── uploads/           # Image uploads directory (auto-created)
```

Installation Steps

Step 1: Install XAMPP

1. Download XAMPP from <https://www.apachefriends.org/>
2. Install XAMPP with default settings
3. Start **Apache** and **MySQL** services from XAMPP Control Panel

Step 2: Create Project Directory

1. Navigate to your XAMPP installation folder (usually `C:\xampp\htdocs\` on Windows)

2. Create a new folder called `gamevault`
3. Copy all the provided PHP files into this directory

Step 3: Setup Database

1. Open your web browser and go to <http://localhost/phpmyadmin>
2. Click "New" to create a new database
3. Enter database name: `gamevault_cms`
4. Click "Create"
5. Select your new database and go to the "SQL" tab
6. Copy and paste the entire SQL code from the "Database Setup" artifact
7. Click "Go" to execute

Step 4: Configure Database Connection

1. Open `config.php` in your text editor
2. Verify these settings match your XAMPP setup:

```
php

define('DB_HOST', 'localhost');
define('DB_NAME', 'gamevault_cms');
define('DB_USER', 'root');
define('DB_PASS', ''); // Empty for default XAMPP
```

Step 5: Test Installation

1. Open your browser and navigate to: <http://localhost/gamevault>
2. You should see the GameVault homepage with sample games

Default Login Credentials

Admin Account

- **Username:** `admin`
- **Password:** `admin123`
- **Access:** <http://localhost/gamevault/admin/login.php>






Regular User Account

- Create new accounts through the registration page
- Or use admin credentials for full access




Key Features Implemented

Project Requirements Met:




Content Management (CRUD) - 25% (5 features × 5%)

-  **2.1** Create new games with form validation
-  **2.2** Edit and delete existing games
-  **2.3** View games list with sorting options
-  **2.4** Category management with 1-to-many relationship
-  **2.6** WYSIWYG editor for game descriptions




Public User Features - 15% (3 features × 5%)

-  **2.7** Public navigation of games with menu/list
-  **2.8** Category-based navigation
-  **2.9** Comment system with user authentication

Search & Filtering - 15% (3 features × 5%)

-  **3.1** Keyword search functionality
-  **3.2** Category-filtered search
-  **3.3** Paginated search results

Security & Validation - 3% (3 features × 1%)

-  **4.1** Form validation for all inputs
-  **4.2** Sanitized numeric IDs
-  **4.3** XSS protection with input sanitization

Design & Layout - 14% (2×2% + 2×5%)













-  **5.1** Valid HTML/CSS markup
-  **5.2** Consistent design across pages
-  **5.4** SEO-friendly permalink URLs
-  **5.5** Bootstrap CSS framework integration





Image Management - 12% (2×5% + 1×2%)

-  **6.1** Image upload with validation
-  **6.2** Image removal functionality
-  **6.4** Image display on public pages

Authentication System - 19% (1×2% + 3×5% + 1×2%)

-  **7.1** Admin-only access control
-  **7.2** User CRUD management
-  **7.3** Password hashing with PHP password_hash()
-  **7.4** Session-based login system
-  **7.5** User registration with validation

Special Features

-  **2.10** Custom CAPTCHA for comments (5%)
-  **Database Relations** All required 1-to-many relationships
-  **PDO Database** All database operations use PDO
-  **Alternative Syntax** PHP alternative syntax used throughout

Total Estimated Points: 85%+

How to Use the System

As a Public User:

1. **Browse Games:** Visit the homepage to see all games
2. **Search & Filter:** Use the search bar and category dropdown
3. **View Details:** Click any game to see full details
4. **Register:** Create an account to post comments
5. **Comment:** Log in and add comments to games (includes CAPTCHA)

As an Admin:

1. **Login:** Use admin credentials at `/admin/login.php`
2. **Dashboard:** View statistics and recent activity
3. **Manage Games:** Add, edit, delete games with image uploads
4. **Manage Categories:** Create and organize game categories
5. **Manage Users:** View and manage registered users
6. **Moderate Comments:** Review and moderate user comments

Advanced Customization

Adding More Sample Data:

```
sql
```

```
INSERT INTO games (title, category_id, release_date, developer, rating, description) VALUES ('Your Game Title', 1, '2024-01-01', 'Developer Name', 8.5, 'Game description here');
```

Customizing Design:

- Edit the CSS in the `<style>` sections of each file
- Bootstrap 5 classes are used throughout for responsive design
- Modify colors, fonts, and layouts as needed

Adding New Features:

- The modular structure makes it easy to add new functionality
- Follow the existing patterns for database operations and form handling

Troubleshooting

Common Issues:

1. "Database connection failed"

- Make sure MySQL is running in XAMPP
- Check database credentials in `config.php`
- Ensure database `gamevault_cms` exists

2. "404 Not Found" errors

- Verify files are in `htdocs/gamevault/` folder
- Check that Apache is running
- Make sure URLs start with `http://localhost/gamevault/`

3. Images not uploading

- Check that `uploads/` folder exists and is writable
- Verify file permissions on the uploads directory

4. WYSIWYG editor not loading

- Make sure you have internet connection (TinyMCE loads from CDN)
- Check browser console for JavaScript errors

File Permissions:

- Ensure the `uploads/` directory is writable by the web server
- On Windows with XAMPP, this is usually automatic
- On Linux/Mac, you may need: `chmod 777 uploads/`

Grading Alignment

This project is designed to meet all requirements for the Web Development 2 final project:

- **Project Planning:** Complete proposal with timeline
- **CRUD Operations:** Full game management system
- **Database Design:** Proper relationships and PDO usage
- **User Management:** Registration, login, admin controls
- **Security:** Input validation, password hashing, XSS protection
- **Design:** Professional, responsive Bootstrap design
- **Advanced Features:** Image uploads, WYSIWYG editor, search/filter

Milestone Achievement:

- **Week 11:** 15+ marks (Basic CRUD + Authentication)
- **Week 12:** 30+ marks (+ User management + Search)
- **Week 13:** 45+ marks (+ Image uploads + Comments)
- **Week 14:** 60+ marks (+ Advanced features + Polish)
- **Week 15:** 80+ marks (Complete system with all features)

Next Steps

1. **Deploy the system** following the installation steps above
2. **Test all functionality** to ensure everything works
3. **Customize the design** to match your preferences
4. **Add more sample data** for demonstration purposes
5. **Practice presenting** the features to your instructor

Support

If you encounter any issues:

1. Check the troubleshooting section above
2. Verify all files are correctly placed
3. Ensure XAMPP services are running
4. Check browser console for errors
5. Review PHP error logs in XAMPP

Good luck with your project presentation! 🚀