Project 2 – PHP, HTML, CSS

CSC 4370/6370: Web Programming – Fall 2025

Important Dates

- **Group Project Proposal Due: 11/09/2025 @ 11:59 PM**
- **Final Project Due: 11/23/2025 @ 11:59 PM** (for all groups)

Overview

All groups have been assigned same as project 1. Please check **iCollege** or **Discord** for any updates or new additions.

This presents an excellent chance to enhance your teamwork skills, a highly sought-after quality in the professional realm. (Read Becoming a Successful Team Member.)

Your task:

- Deliver a **15 – 20 minute presentation** on a course-related topic.
- Choose a topic that interests your group—creativity is encouraged!
- The project does **not** need to be overly complex, but it must demonstrate **sound logic and design principles**.

First Group Meeting Agenda

1. Stay with your current team (minor changes allowed if necessary).
2. **Appoint a team leader** to serve as the main contact with the instructor.
3. Conduct a **brainstorming session** to share ideas.
4. Plan **collaboration and communication strategies**.
5. Assign someone to **integrate all parts** into a cohesive project.
6. Define **specific responsibilities** for each member (e.g., design, coding, testing).

Project Requirements

Front-End Design:

- Use **HTML and CSS** for the front-end.
- Use **PHP** for server-side logic.
- **JavaScript is NOT allowed.**

Key Directives

- **Team Coordination:** Select a leader to coordinate and report progress.
- **Presentation:**
    - Duration: **15–20 minutes**
    - Include:
    - Leader's Name
    - Project Name
    - One-sentence project summary during your talk
    - Selected topic from provided list
    - All team members and their roles
- **Submission:**
    - Upload all project files to the **CODD server** before presentations.
    - Create a **GitHub repository** for your project and upload all code from start to finish.
    - GitHub may be checked randomly for progress and communication.

Presentation Format

1. **PowerPoint Slides:**
    - Introduce the problem
    - Outline team structure
    - State objectives and challenges
2. **Live Demo:**
    - Show the program running
    - Demonstrate functionality
3. **Source Code Review:**
    - Display key sections of code
    - Explain logic, methodology, and any innovative parts

Additional Notes

- Focus on **HTML, CSS, and PHP** only.
- No JavaScript .
- Roles can be flexible (e.g., designer, coder, tester, architect).
- Goal: Present a **clear, logical, and creative solution**.

<mark>All group MUST implement any one of the two methodologies **provide: Please reference links:**</mark>
- ➢ [**Kanban**](#)
- ➢ [**Sprint**](#)
- ➢ [**Grading Criteria's Review**](#)
- ➢ [**Grading Rubric**](#)

Project Descriptions with Additional Key Features

- **Important Instruction:**
  Each Undergraduate group **must implement any 3 out of the 4 Additional features** while all Graduate students **must implement all 4** provided.
  All other listed requirements are **mandatory**.
  You **cannot deviate** from the suggested topics or features—stick to what is provided.

1. Mystery Board Game – "Cryptic Quest: Crime Scene Investigation"

Enhanced Overview: A dynamic mystery game where players become crime scene investigators solving interconnected cases. Each case builds on previous ones, creating an overarching narrative.

Core Features:

- PHP session-based clue collection with evidence bag
- Dynamic difficulty scaling based on player performance
- Database of interconnected mystery cases with branching solutions
- Real-time leaderboard with investigation rankings

Additional Key Features:

- **Case File System**: Digital case files that update with new evidence and suspect profiles
- **Forensic Analysis Mini-Games**: Simple fingerprint matching and evidence comparison tools
- **Multiple Suspect Interrogations**: Different dialogue trees for each suspect with personality traits

- **Crime Scene Reconstruction**: Drag-and-drop evidence placement to recreate crime scenes

2. Game Show: "Jeopardy! Battle Arena"

Enhanced Overview: A competitive Jeopardy implementation where 2-4 players compete in real-time with strategic betting and category mastery.

Core Features:

- Turn-based answering system with buzzer simulation
- PHP session-based score tracking and category progress
- Randomized questions with adaptive difficulty
- Animated UI with CSS transitions and game show effects

Additional Key Features:

- **Daily Double Challenges**: Special high-stakes questions with custom wagering
- **Category Mastery Bonuses**: Unlockable bonuses for consecutive correct answers in categories
- **Final Jeopardy Betting**: Strategic final round with risk management
- **Player Statistics Tracking**: Personal performance metrics and improvement suggestions

---

3. Adventures of the Dice – "Mythical Quest: Labyrinth of Legends"

Enhanced Overview: A fantasy-themed Snakes and Ladders game where players embark on quests, encounter mythical creatures, and collect magical artifacts.

Core Features:

- PHP dice-rolling with probability modifiers
- Dynamic board generation based on difficulty
- Session-based game state and inventory tracking
- Multiple board layouts with thematic environments

Additional Key Features:

- **Quest System**: Side missions that provide special rewards and abilities
- **Character Progression**: Level-up system with unlockable powers and items
- **Weather & Event Cards**: Random events that affect gameplay mechanics
- **Multiplayer Trading**: Item and power trading between players during games

4. Escape Room – "The PHP Vault: Temporal Paradox"

Enhanced Overview: A time-travel themed escape room where solving puzzles in the present affects the past and future environments.

Core Features:

- 5+ interconnected puzzle challenges with PHP validation
- Session-based progress tracking across time periods
- Animated door unlocking and environment changes
- Progressive hint system with score penalties

Additional Key Features:

- **Time Machine Interface**: Visual timeline navigation between different eras
- **Paradox Creation Puzzles**: Intentionally create and resolve time paradoxes to progress
- **Environmental Storytelling**: Discover narrative clues through room exploration
- **Multiple Escape Routes**: Different solution paths with varying difficulty and rewards

---

5. Role-Playing Game – "Chronicles of Destiny: The Living World"

Enhanced Overview: An immersive text-based RPG where player choices dynamically reshape the game world and NPC relationships.

Core Features:

- Complex branching narrative with 50+ decision points
- PHP session management for character stats, relationships, and inventory
- Dynamic story events based on player morality and previous choices
- CSS-animated storytelling with character portraits

Additional Key Features:

- **Faction Reputation System**: Gain standing with different in-game groups and factions
- **Skill Tree Development**: Customizable character abilities and specializations
- **Dynamic Economy**: Player actions affect item prices and availability
- **Multiple Endings**: 10+ different game endings based on cumulative choices

6. "Deal or No Deal: High-Stakes Negotiation with banker"

Enhanced Overview: A classic high-stakes game of chance and strategy where players select a briefcase and eliminate others through tense negotiations with an algorithmic Banker. Each round presents psychological battles as players weigh guaranteed offers against potential fortunes, with server-side complexity ensuring unpredictable and engaging gameplay.

Core Features:

- PHP session-based briefcase management with offer history tracking
- Algorithmic Banker with multi-variable PHP calculations and volatility factors
- Procedural value distribution with hardcoded value sets and server-side validation
- CSS-animated briefcase interactions and value reveals triggered by PHP reloads

Additional Key Features:

- **Volatile Market Events:** Random PHP-driven events that dynamically alter briefcase values
- **Banker's Strategic Offers:** PHP-generated bluff and pressure offers with session-based expiration
- **Progressive Value Revelation:** Hidden value sets revealed gradually through PHP-driven HTML
- **Dynamic Round Structure:** Non-linear round progression with mid-game value reassignment