**USE CASE DOCUMENTATION**

**Project Title:** Crypto Conundrum  
**Company:** Blast Till Dawn  
**Role:** Product Manager  
**Project Task:** Use Case Documentation for a New Gaming Product

1. **Game Concept**

**Game Genre:** Puzzle

**Game Concept – Crypto Conundrum:**  
Crypto Conundrum is an educational puzzle game designed to simplify the world of cryptocurrency and blockchain. Players explore and understand key crypto concepts through visual, interactive challenges such as hashing, consensus, smart contracts, and blockchain validation. The game blends mental stimulation with foundational knowledge that can be applied in the real world.

**Core Gameplay Loop:**

* Solve puzzles that model crypto operations (e.g., hash generation, proof-of-work).
* Earn virtual coins for completing levels.
* Unlock new puzzles and crypto concepts as you progress.
* Use rewards in mini-games or sandbox learning environments.

**Unique Value Proposition:**

* Simplifies blockchain concepts through interactive visuals.
* Builds crypto literacy in a fun, digestible way.
* Encourages continuous learning with adaptive gameplay.
* Appeals to both crypto-curious users and puzzle game lovers.

**2. User Persona**

**Name:** Abbie  
**Age:** 31  
**Location:** Lagos, Nigeria  
**Occupation:** Sales Operations Manager  
**Income Bracket:** Upper-middle class

**Psychographics:**

* Highly organized, analytical, and enjoys solving problems.
* Interested in emerging technologies, particularly cryptocurrency.
* Often intimidated by technical crypto jargon.
* Seeks productivity and learning during off-hours.

**Behaviors:**

* Plays mobile games during lunch breaks and commuting.
* Listens to tech-related YouTube content or podcasts.
* She has downloaded educational apps but quickly loses interest if the UX is poor.
* Prefers hands-on learning rather than theoretical reading.

**Goals & Motivations:**

* Wants to grasp the basics of blockchain and cryptocurrency.
* Hopes to be more confident in discussions around Web3/crypto at work.
* Look for apps that offer both entertainment and self-improvement.

**Pain Points:**

* Most crypto content online is either too technical or too vague.
* Doesn’t have much free time to dedicate to intensive courses.
* Frustrated by clickbait crypto advice online.
* Needs a reliable and trustworthy source of learning.

**3. Key Engineering Roles**

**Development Team:**

* **Game Designers:**
  + Design puzzle mechanics and user flow.
  + Develop difficulty progression and content pacing.
* **Educational Content Designers:**
  + Translate crypto concepts into game logic.
  + Ensure real-world accuracy.
* **UI/UX Designers:**
  + Ensure puzzles are accessible and intuitive.
  + Design a knowledge map and reward system.
* **Frontend Developers:**
  + Build interactive puzzle mechanics.
  + Ensure mobile responsiveness and cross-platform compatibility.
* **Backend Developers:**
  + Manage in-game economy, player progress, and data storage.
  + Implement player analytics and performance tracking.
* **Mobile Development Specialists:**
  + Optimize performance for iOS and Android.
  + Enable cloud sync and device transfers.

**Special Roles:**

* **Blockchain Consultant:**
  + Verify the accuracy of concepts and visual metaphors.
* **Educational Psychologist:**
  + Improve learning retention through game mechanics.
* **QA and Accessibility Testers:**
  + Validate usability for a global, diverse user base.

**4. Core Features**

**Essential Game Features**

**A. Puzzle Progression System**

* Multiple puzzle types: hashing, smart contracts, block validation, etc.
* Each concept broken into levels with increasing complexity.

**B. Virtual Crypto Economy**

* Players earn in-game tokens.
* Tokens can be used to unlock advanced challenges or portfolio simulations.

**C. Educational System**

* Just-in-time tips during gameplay.
* Deep-dive resources for curious players.
* Real-life "use case" links after completing each puzzle.

**D. Adaptive Learning Engine**

* Difficulty adjusts based on performance.
* Hints guide players rather than solving for them.

**E. Sandbox Mode**

* Experiment with custom challenges.
* Design your puzzles using crypto elements.
* Compete or collaborate with other users.

**F. Progress & Rewards**

* Visual knowledge map showing mastered concepts.
* Achievements based on learning milestones.
* Shareable badges and crypto "certificates".

**5. Use Case Scenarios**

**Use Case 1: First-Time Player Onboarding**

**Actor:** Abbie (New User)  
**Goal:** Understand basic blockchain concepts via tutorial  
**Steps:**

1. Abbie launches the app and sees an onboarding animation.
2. First challenge: creating a simple hash using visual blocks.
3. Receives tokens and an explanation: “This is how blockchain verifies data.”
4. Accesses optional “Learn More” section with real-world examples.

**Success Criteria:** Abbie understands the concept of a hash and completes her first puzzle confidently.

**Use Case 2: Concept Mastery – Blockchain Assembly**

**Actor:** Abbie (Returning User)  
**Goal:** Learn about block structures and consensus  
**Steps:**

1. Abbie unlocks the “Blockchain Assembly” category.
2. Puzzles simulate adding transactions to blocks.
3. She must maintain order, prevent tampering, and pass consensus.
4. An interlude explains forks and 51% of attacks.

**Success Criteria:** Abbie correctly assembles a multi-blockchain and completes the puzzle series without using hints.

**Use Case 3: Sandbox Learning Mode**

**Actor:** Abbie (Advanced Learner)  
**Goal:** Create and share a smart contract puzzle  
**Steps:**

1. Enters Sandbox mode to test her understanding.
2. Uses drag-and-drop logic to build a smart contract flow.
3. The game engine validates logic and confirms puzzle solvability.
4. Shares the puzzle with the community.
5. Receives upvotes and feedback from other players.

**Success Criteria:** Abbie designs a working smart contract puzzle and it gets positive feedback from the community.

**6. Implementation Considerations**

**Development Platform:** Unity or Unreal Engine (for cross-platform support)

**Backend Infrastructure:**

* Cloud data storage (e.g., Firebase or AWS)
* Real-time analytics engine (for learning outcomes and behavior tracking)

**Data & Sync:**

* Cloud saves for cross-device gameplay
* Offline access for main puzzle categories

**Launch Phases**

| Phase | Scope |
| --- | --- |
| Alpha | Hashing puzzles + onboarding |
| Beta | Full puzzle suite + economy & achievements |
| Public Launch | Educational framework, Sandbox, community |
| Post-Launch | New crypto concepts, partner content, NFT-lite badges |

**Success Metrics:**

* 65%+ puzzle sequence completion rate
* 30%+ engagement with optional educational content
* Average session: 15+ minutes
* 40%+ return user rate within the first 14 days
* Community puzzle sharing growth rate

**7. Competitive Landscape**

**Market Gap:**

* Current apps either educate (but aren’t fun) or entertain (but aren’t informative).

**Crypto Conundrum stands out by offering:**

* Real crypto concepts in a gamified format
* Engaging mechanics, not just static quizzes
* Social learning via puzzle sharing and community feedback

**Top Comparisons**

| Product | Crypto Conundrum Advantage |
| --- | --- |
| Binance Academy Game | More interactive and game-first |
| Crypto Kitties | Educational focus on speculative gaming |
| Elevate/Peak (brain games) | Tech-themed learning, real-world relevance |

**8. Conclusion & Next Steps**

**Crypto Conundrum** uniquely blends education and entertainment, making blockchain concepts accessible to curious minds through puzzle-based gaming. As cryptocurrency becomes more mainstream, this product empowers users with knowledge, confidence, and skill.

**Next Steps:**

1. Build and test MVP with core hash puzzles
2. Conduct closed beta with target users like Abbie
3. Finalize visuals, brand identity, and knowledge map
4. Launch phased release beginning with Nigeria and the U.S.
5. Seek partnerships with crypto literacy platforms and blockchain networks