**Final Project**

**Crypto Treasure Hunt - Hidden Coin Finder Game**

**Submitted By**

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**Organizer University:** Jagannath University **Venue:** International University of Business, Agriculture and Technology (IUBAT) **Dept./Institute/Centre:** Computer Science and Engineering (CSE) **Unique Batch Number:** 03 **Training Track/Course Name:** Front-End Development (ReactJS)

**Project Description: Color Catcher - Reflex Game**

**1. Project Overview**

Crypto Treasure Hunt is an engaging, image-based interactive game that challenges players' observation skills and attention to detail. Players are tasked with finding hidden crypto coins scattered throughout various level images. Upon clicking a hidden coin, players earn points, and once they collect enough points, they unlock the next level. The game offers a fun and visually rich experience, gradually increasing in difficulty as players advance.

**2. Project Objective**

The objective of this project is to develop an enjoyable and visually appealing treasure hunt game that enhances players' focus, attention, and image scanning abilities. Using simple and intuitive mechanics, the game aims to offer a rewarding experience through level progression and score tracking, motivating users to keep exploring and improving.

**3. Features**

1. **Hidden Treasures:**

Players must find and click on hidden crypto coins within background images. Each correctly clicked treasure awards 10 points.

1. **Multiple Treasures per Level:**

Each level contains several coins, encouraging detailed exploration.

1. **Progressive Level Unlocking:**

Achieving 50 points unlocks the next level. New images and new coin placements make each level unique.

1. **Dynamic Treasure Icons:**

Different icons (e.g., Bitcoin, Loot, Treasure) appear randomly in hotspots.

1. **Fade-in Animation:**

Smooth fade-in effects for game title and level badge on each level load.

1. **Sound Effects:**

A satisfying coin sound plays when a treasure is collected.

1. **Progress Bar:**

A visual progress bar tracks the player's progress toward the 50-point goal.

1. **Score Display and Feedback:**

Real-time score updates and success messages encourage players.

**4. Technical Details**

**Frontend Development:**

* **HTML5**: Structures the game area, title, progress bar, score, and messages.
* **CSS3**: Styles the game background, animations, transitions, and responsive elements.
* **JavaScript (ES6)**: Handles level loading, treasure generation, user interaction, scoring, sound playback, and progress management.

**Game Logic:**

* **Coin Placement:** Hotspot coordinates are loaded from a `cryptos.json` file.
* **Random Coins:** Different coin icons are assigned randomly to each hotspot.
* **Score Tracking:** Each collected coin increments the score by 10 points.
* **Level Transition:** Reaching 50 points automatically unlocks the next level.
* **Progress Bar:** Fills proportionally to the points collected.

**UI Elements:**

* **Game Background Image:** Fullscreen level-specific background image.
* **Level Badge and Title:** Overlay text showing current level and game title.
* **Progress Bar:** Dynamic indicator of level completion.
* **Score Board:** Real-time display of the user's score.
* **Message Display:** Status updates like “Coin collected!” or “Level Complete!”

**Audio:**

* **Coin Sound:** An audio clip plays when a coin is collected for immediate feedback.

**5. Future Improvements**

* **Advanced Levels:** Add more challenging images with more hidden coins or moving coins.
* **Special Power-Ups:** Temporary hints showing approximate treasure locations.
* **Leaderboard:** Store and display top scores among players.
* **Mobile Touch Optimization:** Enhance touch responsiveness for mobile devices.
* **Animated Coins:** Add slight motion or glow to coins to make them more enticing.
* **Theme Variations:** Offer different theme packs such as 'Christmas Hunt,' 'Space Hunt,' or 'Pirate Treasure.'

**6. Conclusion**

Crypto Treasure Hunt offers players a fun, engaging way to improve their observation and reflex skills in a visually captivating environment. By utilizing HTML, CSS, and JavaScript, the game provides an immersive experience with dynamic elements like random coin placement, audio feedback, and smooth UI animations. The project’s scalability allows for future enhancements that can make it even more exciting and competitive, ensuring long-term player engagement.

This project will be fully responsive, ensuring accessibility for a wide range of devices. Furthermore, additional features and improvements can be added over time, making the game more enjoyable and competitive for users.