**Final Project**

**Number Click 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: Number Click Game**

**1. Project Overview:**

**Number Click Game** is a simple yet engaging reflex-based mini-game that tests a player's ability to click randomly appearing numbers within a limited time. Players earn points by clicking moving numbers before they disappear. The challenge intensifies as more numbers appear rapidly, requiring quick reflexes and focus

**2. Project Objective:**

The goal of this project is to provide an interactive, fast-paced clicking game that enhances reaction speed and concentration. With a competitive scoring system and difficulty progression, players will be motivated to improve their personal best scores while enjoying a fun and addictive gameplay experience.

**3. Features:**

1. **Random Number Generation:**
   * Numbers appear at random positions inside the game area.
   * Each number disappears after a short duration.
2. **Score System:**
   * Clicking a number increases the player's score.
   * The final score is displayed at the end of the game.
3. **Highest Score Tracking:**
   * The highest score is saved using local storage.
   * Players can see their best performance.
4. **Countdown Timer:**
   * A timer tracks the remaining game duration.
   * The game ends when the countdown reaches zero.
5. **Game Over Screen:**
   * Displays the final score at the end of the game.
   * Option to restart the game.
6. **Vibration Feedback (Mobile Supported):**
   * The device vibrates when the game ends (on supported devices).
7. **Start Button:**
   * Players must click "Start Game" to begin.
   * The game logic resets upon restarting.
8. **Difficulty Scaling:**

* The pace of number appearance increases gradually.
* Players must adapt to the growing challenge.

**4. Technical Details:**

**Frontend Development:**

* **HTML5:** Structures the game layout and UI components.
* **CSS3:** Styles the game elements, providing a clean and responsive interface.
* **JavaScript (ES6):** Implements the game logic, including number spawning, click detection, score tracking, and countdown mechanics.

**Game Logic:**

* **Random Number Placement:** Numbers appear at various positions within the game area.
* **Player Interaction:** Players click numbers to increase their score.
* **Score Tracking:** Each successful click adds the number value to the score.
* **Timer Management:** The game automatically stops when the time expires.
* **Local Storage:** Highest score is retained across sessions.

**5. Future Improvements:**

1. **Multiple Levels:** Introduce difficulty settings or stages with additional gameplayvariations.
2. **Leaderboard System:** Store and display top scores across multiple players.
3. **Power-ups:** Implement bonuses such as extra time or multiplier effects.
4. **Sound Effects:** Add audio feedback for clicking numbers and game-over events.
5. **Theme Customization:** Offer different background and number styles for a visually refreshing experience.

**6. Conclusion:**

The **Number Click Game** is a fast-paced, reflex-testing game designed for both casual play and competitive engagement. Built using core web technologies (HTML, CSS, JavaScript), the game provides an interactive and addictive experience while enhancing players' response times. With room for future expansion, additional features can be incorporated to make the game even more engaging and challenging.