📌 Overview

You're tasked with building a **game-like puzzle** that tests a user's ability to decode patterns from visual signals. This assignment is designed to test your **React + TypeScript** skills, **logical reasoning**, **UI creativity**, and **attention to detail**.

🎯 The Game Concept

You will create a game where a 5x5 grid of squares **flashes on and off**, following a hidden pattern. The user observes the flashing sequence and then tries to **guess the underlying logic** by selecting the squares they believe were flashing.

With each level, the **rule behind the flashing squares changes** — becoming more abstract or complex.

🧩 Levels & Rules

Level	Rule	Description
1	Even indices	Flash squares where index % 2 === 0
2	Diagonals	Flash squares where (row === col) or (row + col === 4)
3	Prime numbers	Flash squares whose index is a prime number
4	Center cluster	Flash center (12) and its 4 direct neighbors
5	`(row + col) % 3 === 0`	Use this formula to decide flashing squares

You are free to add more levels if you're feeling creative!

💡 How the Game Works

1. Display a **5x5 grid** of square cells.
2. Flash certain squares according to the current level's hidden rule (1s on/off using a timer).
3. After ~10 seconds of flashing, **stop the animation** and prompt the user to select the squares they believe were flashing.
4. On submission:
    - Compare the selection with the actual rule-based answer.
    - Provide feedback: ✅ Correct squares, ❌ Incorrect picks.
    - Optionally show a **hint** if the answer is wrong.

5. Progress to the next level.

✅ Requirements

- **React** (functional components with Hooks)
- **TypeScript**
- Styled using **CSS or styled-components** (or Tailwind, optional)
- No UI libraries (e.g., no Material UI, Chakra, Shadcn)
- No animation libraries — use CSS transitions or native JS
- Responsive and clean UI
- Clean and modular code (preferably using reusable components)
- Comment important logic

🌟 Bonus Features (Optional)

- Add a level **timer** or score counter.
- Add **sound feedback** or animations.
- Allow the user to toggle between **light/dark themes**.

📦 Deliverables

- Link to a **hosted live version** (Vercel, Netlify, etc.) [**Do not** make your **GitHub repository** public]
- Zip your code files and email them to us
- A short `README.md` explaining: How to run the app locally
- (Optional) A 2–3 minute Loom/video walkthrough of your game

🕐 Deadline

Please submit your solution within **3 days** of receiving this assignment.