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Kelas: 3C /Sistem Informasi

MK : Pemrograman Lanjut

### **Platform Edukasi untuk Anak Disabilitas**

Buat kan saya sebuah web applikasi terkait pembelajaran inklusif yang berjudul “Platform Edukasi untuk Anak Disabilitas” dengan kode HTML, CSS, dan JavaScript murni (tanpa framework, tanpa library eksternal) yang lengkap, terstruktur, dan dapat langsung dijalankan, ditujukan untuk anak usia 6–15 tahun dengan peran tambahan guru dan orang tua sebagai pendamping; website memiliki landing page informatif serta mode belajar berbasis accessibility profile yang dapat dipilih, meliputi Mode Tunarungu (antarmuka visual-first, teks besar, ikon jelas, tanpa ketergantungan audio), Mode Tunanetra (semantic HTML, ARIA attributes, navigasi keyboard penuh, text-to-speech), Mode Tunagrahita (UX sangat sederhana, satu instruksi per layar, visual konkret, tanpa timer atau tekanan), serta Mode Disabilitas Lainnya seperti autisme dan ADHD (UI minimalis, low distraction, alur konsisten dan prediktif); sistem menyediakan latihan soal interaktif dengan Level 1, Level 2, dan Level 3 yang setara secara kompetensi (bukan peningkatan kesulitan), di mana setiap level memiliki bank soal berbeda namun menguji pemahaman konsep yang sama, dan setiap kali latihan diulang sistem wajib mengacak soal serta pilihan jawaban untuk mencegah hafalan dan mendorong pemahaman makna; website harus menyertakan feedback positif real-time, audio narration ON/OFF, serta pengaturan aksesibilitas global (pengaturan ukuran teks, kontras warna, dan mode fokus), menggunakan ramah aksesibilitas dan untuk mengelola state mode belajar, randomisasi soal, logika latihan, UI switching, dan kontrol audio, dengan tujuan menghasilkan platform edukasi yang ringan, stabil, inklusif, fungsional, dan user-centered, bukan sekadar tampilan visual.

#### **Conceptualizing The Web App**

I've been wrestling with the core concept. "Platform Edukasi untuk Anak Disabilitas" is taking shape in my mind. I'm now zeroing in on the fundamental HTML structure, considering a clean, accessible layout. Vanilla JavaScript is the route to go! Designing for 6-15 year olds, and their educators, is paramount. My latest focus: keeping the user interface intuitive.

#### **Mapping Out the Structure**

The project's structure is solidified. I've sketched out the crucial pages and user profiles; Tunarungu, Tunanetra, and Tunagrahita are taking precedence. I am now working on a

3-level learning system, focusing on interactive exercises, randomization, and instantaneous positive reinforcement. Global settings are a major priority. I'm focusing on "Wow" aesthetics without sacrificing accessibility.

## Detailing The Implementation

I'm now fully immersed in the nitty-gritty of implementation. The HTML skeleton is taking shape, and the distinct views are planned for dynamic toggling. I've got the state management and question bank logic sketched out, and I'm tackling accessibility features like TTS and text resizing. I'll kick off with the

```
index.html
```

, then move onto styling with

```
style.css
```

, followed by the logic in

```
script.js
```

and data in

```
questions.js
```

. I am separating concerns so it's a "complete, structured" code, just as requested!

## Organizing the Project

I'm focusing on the project's physical organization now. I'm planning the file structure, specifically where to store everything. I've remembered the user's previous project location, in

```
d:\SEMESTER_3\MK_Pmrograman_Lanjut
```

. It seems like a course directory so I'll create a new folder,

```
InclusiveLearningPlatform
```

, within that. I will then begin setting up the question bank (

```
questions.js
```

) and start fleshing out the design details for each user profile. My next step will be to define the key visual cues for the Tunarungu design.

## Establishing the Project's Base

Now, I'm setting up the actual project directory. First, I'll examine

```
d:/SEMESTER_3/MK_Pmrograman_Lanjut
```

to be certain of its status. Then, I'll create

```
Projek_Inklusi
```

within that path. With the directory structured, I'll create the key files:

```
index.html
```

```
,  
style.css
```

,  
script.js  
, and  
data.js

. I am setting up the initial file scaffolding, and once this setup is done, I will begin implementing code based on the project requirements.

```
Analyzed
tujnaL namargormP_KM\3_RETSEMES\d
Thought for 4s
..\MK_Pmrograman Lanjut > mkdir "d:\SEMESTER_3\MK_Pmrograman Lanjut\platform_edukasi_disabilitas"

Directory: D:\SEMESTER_3\MK_Pmrograman Lanjut

Mode                LastWriteTime          Length Name
----                -----              ----  --
d-----        1/5/2026  11:27 PM           platform_edukasi_disabilitas

Ran background terminal commandExit code 0
Request Review
Thought for 22s
Edited
index.html
+168-0
Thought for 43s
Edited
style.css
+513-0
Thought for 15s
Edited
data.js
+125-0
Thought for 32s
Edited
script.js
+339-0
Thought for 23s
Edited
data.js
+124-124
Thought for <1s
```

Aplikasi telah berhasil dibuat dengan struktur kode yang lengkap, modular, dan inklusif di folder proyek Anda.

## Direktori Proyek:

```
d:\SEMESTER_3\MK_Pmrograman_Lanjut\platform_edukasi_disabilitas\
```

Applikasi ini mencakup mode belajar khusus (Tunarungu, Tunanetra, Tunagrahita, Fokus/ADHD), pengaturan aksesibilitas global (TTS, font sizing, tema kontras), dan sistem latihan soal yang setara antar level namun diacak setiap kali dimainkan.

## Cara Menjalankan:

1. Buka File Explorer dan navigasi ke

```
d:\SEMESTER_3\MK_Pmrograman_Lanjut\platform_edukasi_disabilitas\
```

2. Klik dua kali pada

```
index.html
```

untuk membuka aplikasi di browser Anda.

## Fitur Utama yang Diimplementasikan:

- **Aksesibilitas Tinggi:** Dilengkapi dengan aria-attributes, navigasi keyboard (fokus-visible), dan dukungan Text-to-Speech (TTS).
- **4 Mode Belajar Unik:**
- **Mode Visual (Tunarungu):** Menekankan pada ikon visual, feedback visual (border flash), dan teks yang jelas tanpa bergantung audio.
- **Mode Audio (Tunanetra):** Navigasi ramah screen reader dan pembacaan soal otomatis (TTS).
- **Mode Santai (Tunagrahita):** UI yang disederhanakan, tanpa timer, dan feedback bahasa yang mudah dimengerti.
- **Mode Fokus (ADHD):** Tampilan minimalis, warna tenang, dan pengurangan animasi yang mengganggu.
- **Smart Quiz System:** Soal dan Pilihan Jawaban diacak secara otomatis setiap kali level dimulai untuk mencegah hafalan pola.
- **Pengaturan Personal:** Panel pengaturan



memungkinkan perubahan ukuran teks dan tema warna (Normal, High Contrast, Dark Mode) secara langsung.

Selamat belajar dan mencoba aplikasinya! Jika ada penyesuaian yang diinginkan, silakan beritahu saya.

Tolong Kembangkan website Platform Edukasi Inklusif menggunakan HTML, CSS, dan JavaScript terpisah dengan satu platform kuis yang menjalankan seluruh alur kuis, sementara soal diambil dari bank soal terpisah berdasarkan usia (6–8, 9–12, 13–15), mode disabilitas (Tunarungu, Tunanetra, Tunagrahita, ADHD/Autisme), dan paket soal A, B, C. Setiap mode harus memiliki perilaku berbeda, yaitu tunarungu tanpa audio dan fokus visual, tunanetra dengan audio dan navigasi keyboard, tunagrahita dengan soal sederhana tanpa timer, serta ADHD/autisme dengan tampilan minimalis tanpa distraksi, dengan alur tetap sederhana dari pemilihan mode, usia, paket, kuis, hingga hasil, serta menerapkan aksesibilitas dasar seperti skip

link, aria-label, pengaturan teks, dan kontras warna. dan saya ingin di halaman utamanya dipisah dengan 4 mode tersebut dan buat dalam 2 vertikal dan 2 horizontal .

```
Edited  
index.html  
+196-177  
Thought for 27s  
Edited  
style.css  
+207-585  
Thought for 39s  
Edited  
data.js  
+158-124  
Thought for 36s  
Edited  
script.js  
+357-338
```

The application has been successfully updated with the structure and functionality you requested.

## Key Updates Implemented:

### 1. Separate Question Bank (

[data.js):

- Structured by **Age Group** (6-8, 9-12, 13-15) -> **Disability Mode** -> **Package** (A, B, C).
- Contains specific examples for each category to demonstrate the flow.

### 2. Expanded Navigation Flow (

[index.html &  
script.js):

- **Step 1:** Mode Selection (2x2 Grid Layout).
- **Step 2:** Age Selection (6-8, 9-12, 13-15).
- **Step 3:** Package Selection (A, B, C).
- **Step 4:** Interactive Quiz based on the combined selection.

### 3. Mode-Specific Behaviors:

- **⌚ Tunarungu:** Audio is automatically disabled (

audioEnabled = false

). UI focuses on visual feedback (bold borders, icons).

- **słuchaj Tunanetra:** Audio is automatically enabled. Questions and options are read aloud (Text-to-Speech) automatically when loaded.

- **słuchaj Tunagrahita:** Simplified interface, slower speech rate for feedback.

- **słuchaj ADHD:** Minimalist visuals, no distracting animations in the quiz area.

### 4. UI/UX Improvements (

[style.css]:

- **2x2 Grid:** The landing page now strictly adheres to a 2-column grid layout for the modes.
- **Responsive:** Large, accessible buttons for Age and Package selection.
- **Accessibility:** High Contrast Support, Text Resizing, and Aria-Labels are integrated globally.

You can run the application by opening [

[d:\SEMESTER\_3\MK\_Pmrograman Lanjut\platform\_edukasi\_disabilitas\index.html in your browser again.]  
[All changes are saved and ready.]