

Project Idea

Develop a smart application that helps parents, teachers, and psychological specialists identify educational and behavioral weaknesses in children (such as difficulties in reading, writing, math, focus, etc.) and provides a personalized treatment plan for each child based on their individual assessment.

Application Goals

- Early detection of learning difficulties.
 - Improving communication methods with children.
 - Providing customized educational and therapeutic activities.
 - Monitoring the child's progress over time.
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Target Audience

- Children aged 4 to 12 years.
 - Parents.
 - Educational and psychological specialists.
 - School teachers.
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Application Features

1. Interactive Assessments to Identify Weaknesses:

- Visually and audibly simplified tests.
- Evaluate skills such as: reading, comprehension, counting, spelling, concentration, interaction.

2. Smart Analysis using Artificial Intelligence:

- Analyze the child's results.
- Identify areas of strength and weakness.

- Recommend customized activities and therapeutic exercises.

3. Personalized Treatment Plan:

- Daily/weekly schedule of activities.
- Educational videos – Interactive games – Short tasks.

4. Reporting System:

- Regular reports for parents and specialists.
- Graphs and charts showing the child's progress over time.

5. “Supportive Communication” Mode:

- Allows children to express their emotions using icons or pictures.
- Helps parents understand the child's feelings and behaviors.

Technologies Used

- **Frontend:** Flutter / React Native (supporting Android & iOS)
- **Backend:** Node.js / Django
- **Database:** Firebase / MongoDB
- **AI/ML:** Python + Scikit-learn / TensorFlow (for analyzing results and generating personalized plans)
- **Speech/Image Recognition:** OpenCV / Google Speech API

Additional Possible Features

- Remote connection with real specialists (Teletherapy).
- Reward system (stars – points – badges for the child).
- Multilingual support (Arabic – English...).
- Support for children with Autism or ADHD.