

# EZDAY: ADHD Time Management and Productivity through Digital Therapeutics



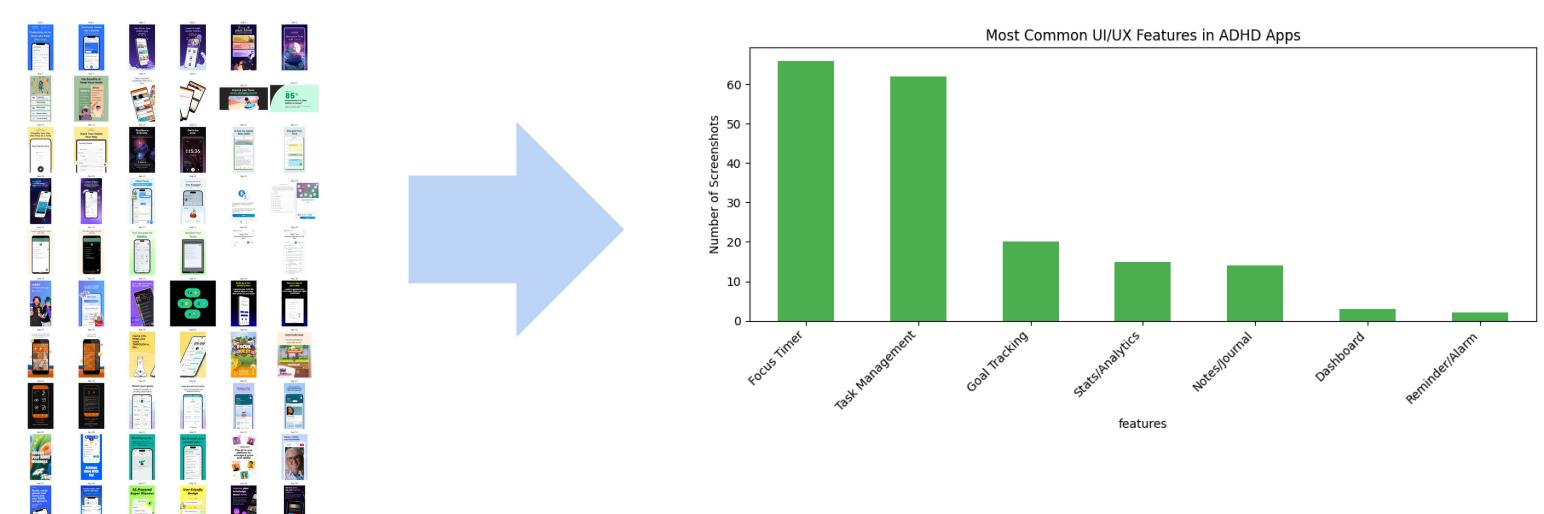
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# Research motivation

ADHD (Attention-Deficit/ Hyperactivity Disorder) is a neurodevelopmental disorder that causes difficulties in carrying out daily life activities due to executive function. ADHD often co-occur with other mental health disorders such as anxiety and depression. ADHD symptoms that are left unmanaged can result to poor quality of life.

We proposed EZDAY, a time management and productivity mobile application to help users manage ADHD symptoms

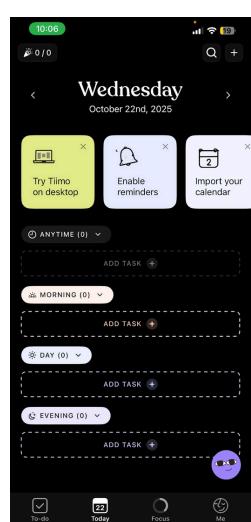
## Methods



- ## 1. Existing “ADHD” based UI/UX design

  - a. Analyzed 30 apps with “ADHD” keywords on Google Play US location
  - b. Visualized top UI/UX features in ADHD apps
  - Noticeable top features are focus timer and task management

## 2. Apply psychological theories in UI/UX

  - a. Gestalt principle: proximity and similarity to ease familiarity for users
  - b. Tiimo app dedicated for neurodivergent:
    - Simple colors and layout
  - Help curb sensory overload for ADHD

Context	Examples of gamified applications	Uses	Studies
Physical fitness	Fitbit, Runtastic, Every Move, Blue Shield California, and Cafe Well	<ul style="list-style-type: none"> <li>They track fitness processes on mobile devices.</li> <li>Users can set daily healthy eating and exercise tasks to accomplish the long-term goal of weight loss and fitness.</li> <li>Motivates users to take their medication on time.</li> </ul>	Marston, Hall 2016
Medicine management	Mango Health	<ul style="list-style-type: none"> <li>Educes users about the importance of proper dieting.</li> <li>Rewards gamers with points for performing consistent blood glucose tests.</li> <li>Assists gamers with breathing exercises to manage anxiety, panic, and hyperventilation symptoms.</li> </ul>	Altanmami 2017
Nutrition	Diet Coach One	<ul style="list-style-type: none"> <li>Enhance user experiences and make stretching abilities more enjoyable by diverting users' attention from their pain.</li> <li>Rewards children for logging and tracking their blood sugar levels.</li> </ul>	Nishihara, Parwak, Edogun, Park, Lee 2019
Chronic disease management	MySugr and Bayer's Didget blood glucose meter, which connects to a Nintendo DS gaming platform Flowy	<ul style="list-style-type: none"> <li>Prepares children for emergencies such as fires, hurricanes, and floods.</li> <li>Reward children for completing physical activities.</li> <li>Rewards for completing physical exercise</li> </ul>	Kalisvaart, Konings, Paridaens, Kamel 2018
Physical therapy and rehabilitation	GestureTek Health, SCI Hard, and MindMaze	<ul style="list-style-type: none"> <li>Games helps in improving engagement, satisfaction and knowledge retention among nursing staff.</li> <li>Changes attitudes of the people towards pandemic management and enables them in practicing hygiene, and adopt preventive measures such as stay at home or washing hands regularly and using sanitizers.</li> </ul>	Kalisvaart, Konings, Paridaens, Kamel 2018
Game-based applications for children	Monster Manor		Robbins 2019
	Monster Guard		Devar & Hattingh, 2020
Physical exercise	Leap Band and Vivo Fit Jr.		Sarker et al., 2021
	Multiplay's Active Dayz™ and Discovery's Active rewards		Hernandez, 2020
Knowledge Management	Multiple games in an integrated review		
Disaster/Pandemic Management	serious game containing different microgames that teach the target group about guidelines and recommended prevention measures of Covid-19		

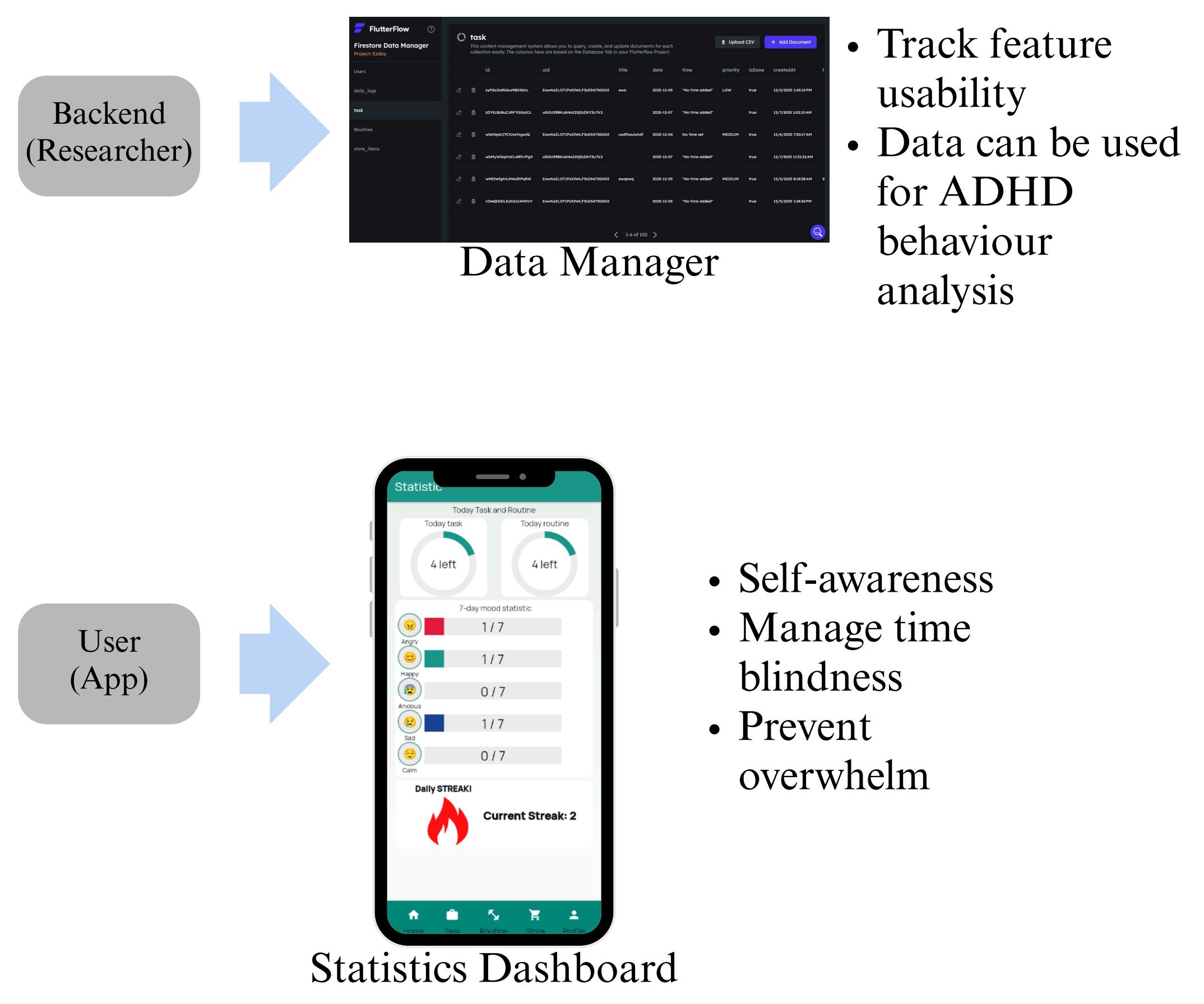
## 3. Gamification in healthcare

  - a. Effective in improving user engagement
  - Implement reward system

## 4. Tools and software

  - a. Figma: Design MVP
  - b. FlutterFlow: Front-end development
  - c. Firebase: Data management and storage

# Data Collection



## Future Work

We plan to increase the data collection by collecting more users to use the EZDAY app which can help us analyze and better understand ADHD patterns and behaviours. The user collection is still ongoing.

We also plan improving the app engagement by setting time-based notifications for users.

# EZDAY Framework

