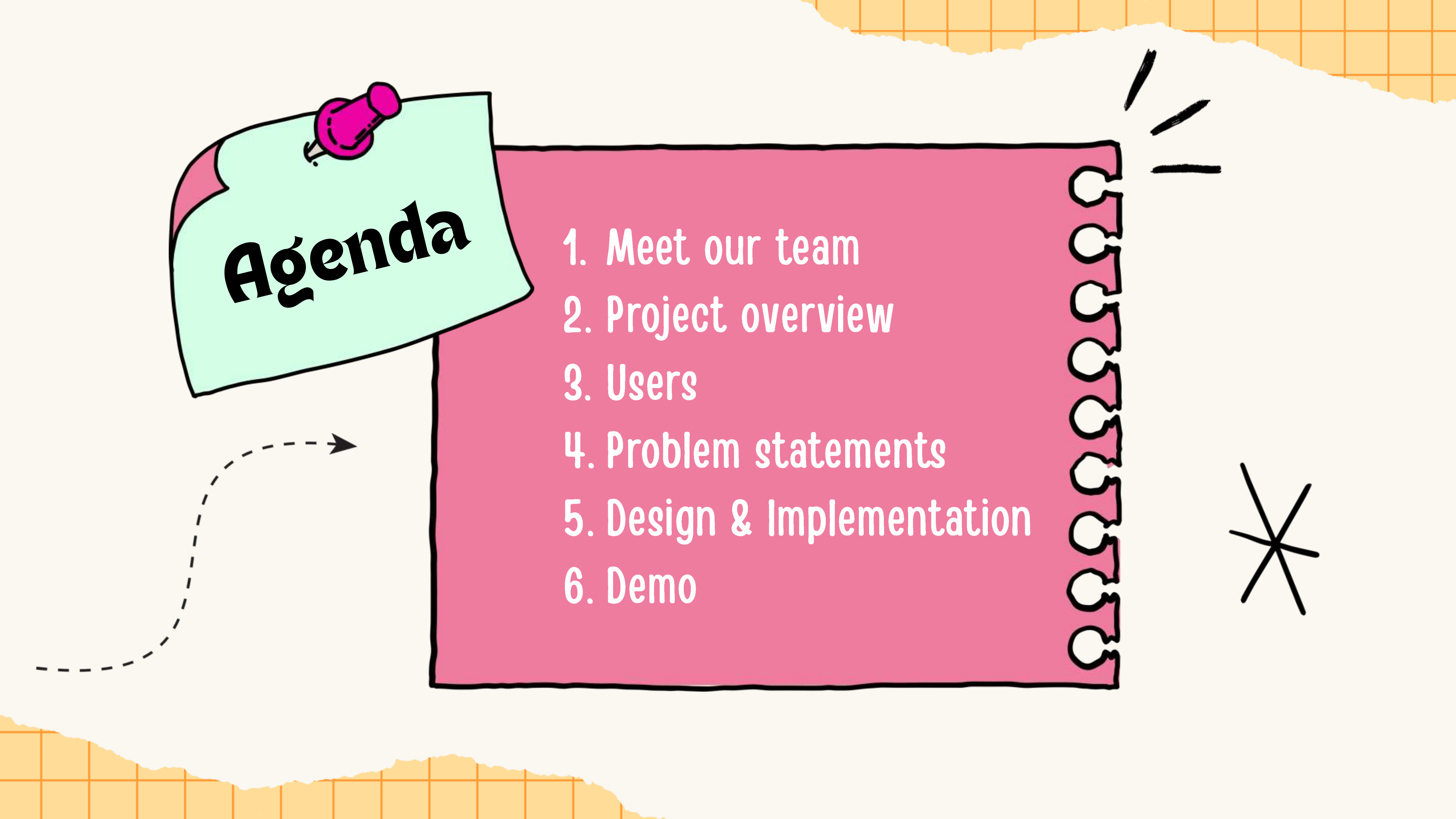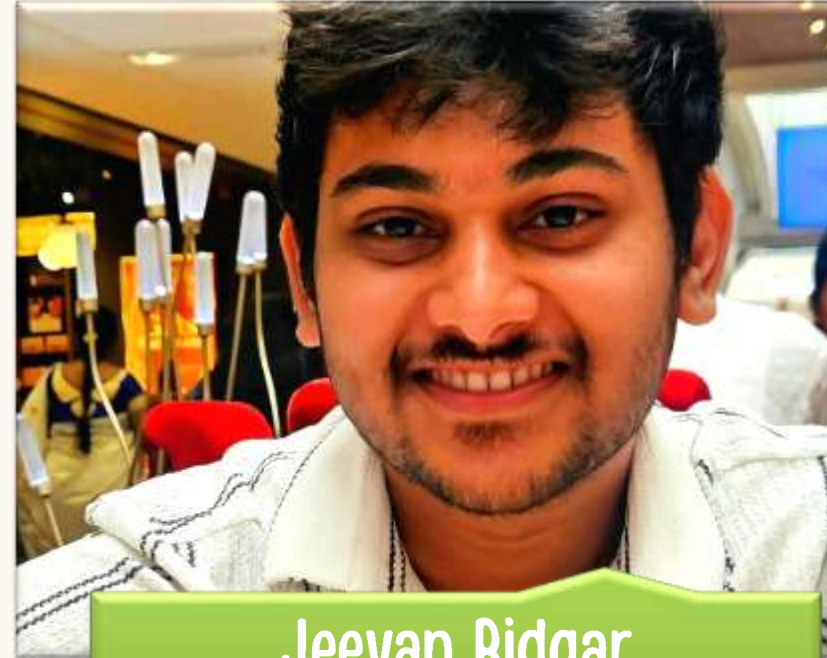# Software Engineering Project

May'25 - Team 25

Agenda

1. Meet our team
2. Project overview
3. Users
4. Problem statements
5. Design & Implementation
6. Demo

Brains Behind the Build!

Siddhardh Devulapalli
- Product & Scrum Lead

Jeevan Bidgar
- Developer & Tester

Pal Amitkumar Shish
- Developer & Tester

Sinu Maria Jeeson
- Developer & Tester

Sreekanth A
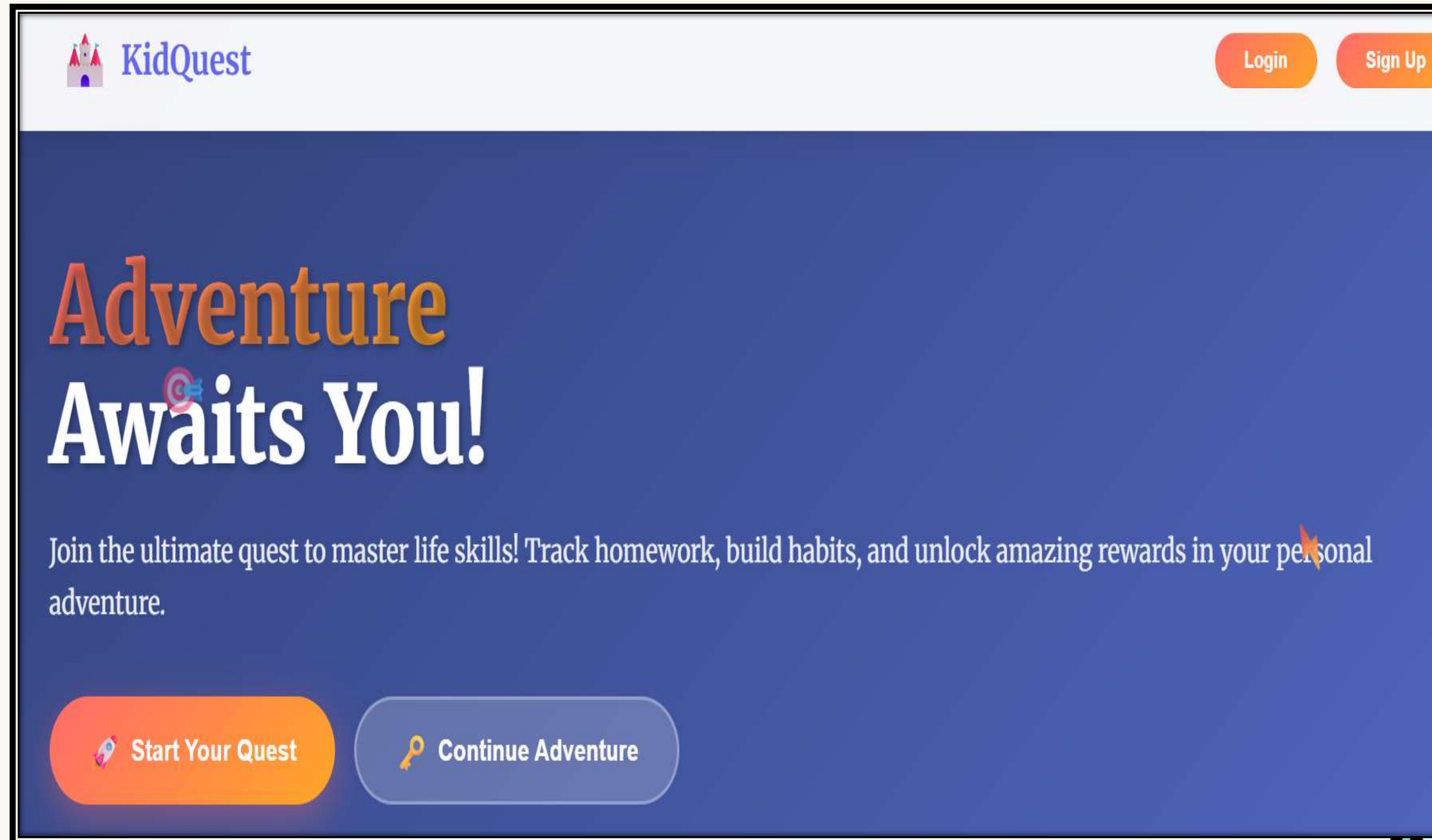- Developer & Tester

Pankaj Mohan Sahu
- Developer & Tester

Om Aryan
- Developer & Tester

🏰 KidQuest

The all-in-one platform you've been

looking for to help kids grow, learn, and

thrive through:

- Life skills & academics

- Time & money management

- Healthy habits & emotions

- Personality & creativity insights

- Parent-teacher connection

🏰 KidQuest

Login   Sign Up

Adventure
Awaits You!

Join the ultimate quest to master life skills! Track homework, build habits, and unlock amazing rewards in your personal adventure.

🚀 Start Your Quest   🔑 Continue Adventure

Who are we developing this for?

Primary	Secondary	Tertiary
- Kids (8 – 14 years of age)	- Middle-aged urban parents - School teachers handling kids from 8 to 14 years of age	- Administrative users

PRIMARY USER

Kids (8 – 14 Yos)

• TIME MANAGEMENT

Problem: Difficulty staying organized with homework and time management

Consequence: last-minute stress and incomplete assignments

• HEALTHY LIFESTYLE

Problem: No reminders for healthy habits like hydration and breaks

Consequence: Fatigue and unhealthy study routines

• FINANCIAL LITERACY

Problem: No system to track pocket money and savings

Consequence: Reckless spending and reduced savings

• MENTAL WELLNESS

Problem: No trusted companion to talk to during sadness or anxiety

Consequence: Bottled-up emotions and lack of timely support

SECONDARY USERS

Parents & Teachers

A) PARENT

• HOLISTIC PROGRESS

Problem: No regular updates on child's progress and app usage

Consequence: Missed chances to support learning without intrusion

• EMOTIONAL SUPPORT

Problem: Unable to provide timely, personalized motivation to the child

Consequence: Missed opportunities to encourage and support daily routines

B) TEACHER

• ASSIGN HOMEWORK

Problem: Unable to systematically assign and track homework subject-wise

Consequence: Delayed identification of students needing extra support

• PROGRESS TRACKING

Problem: Unable to systematically track progress on assigned tasks

Consequence: Missed opportunities to provide timely interventions to struggling students

Summary of features for primary & secondary users!

Kids and Parents

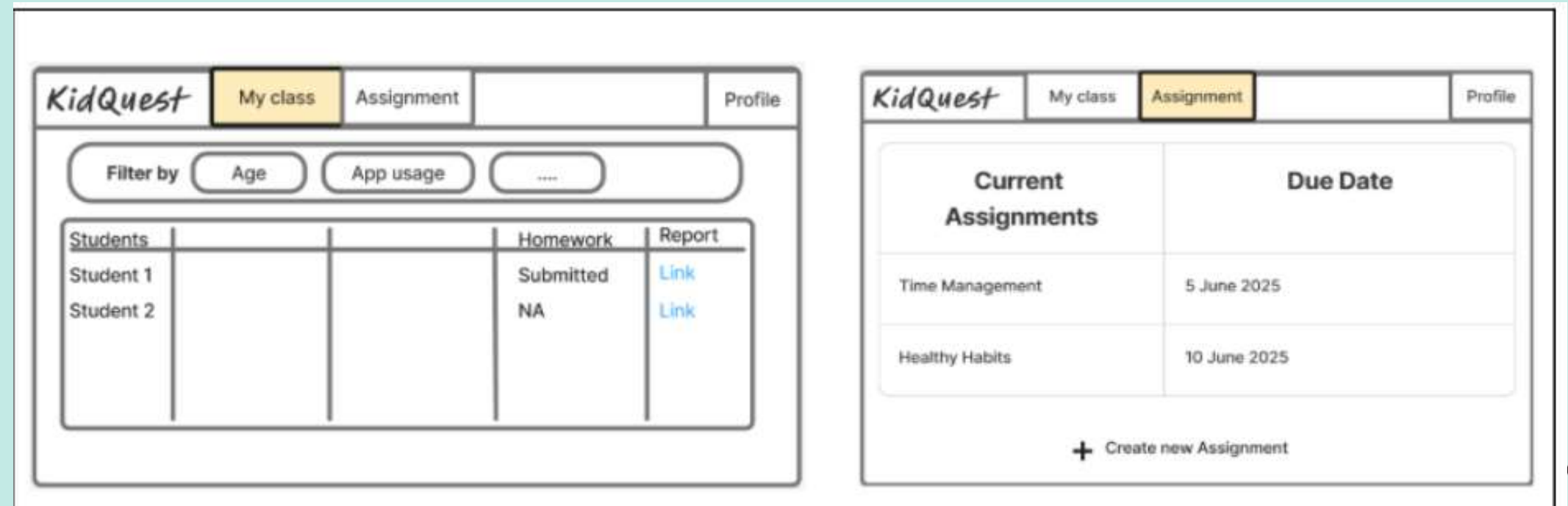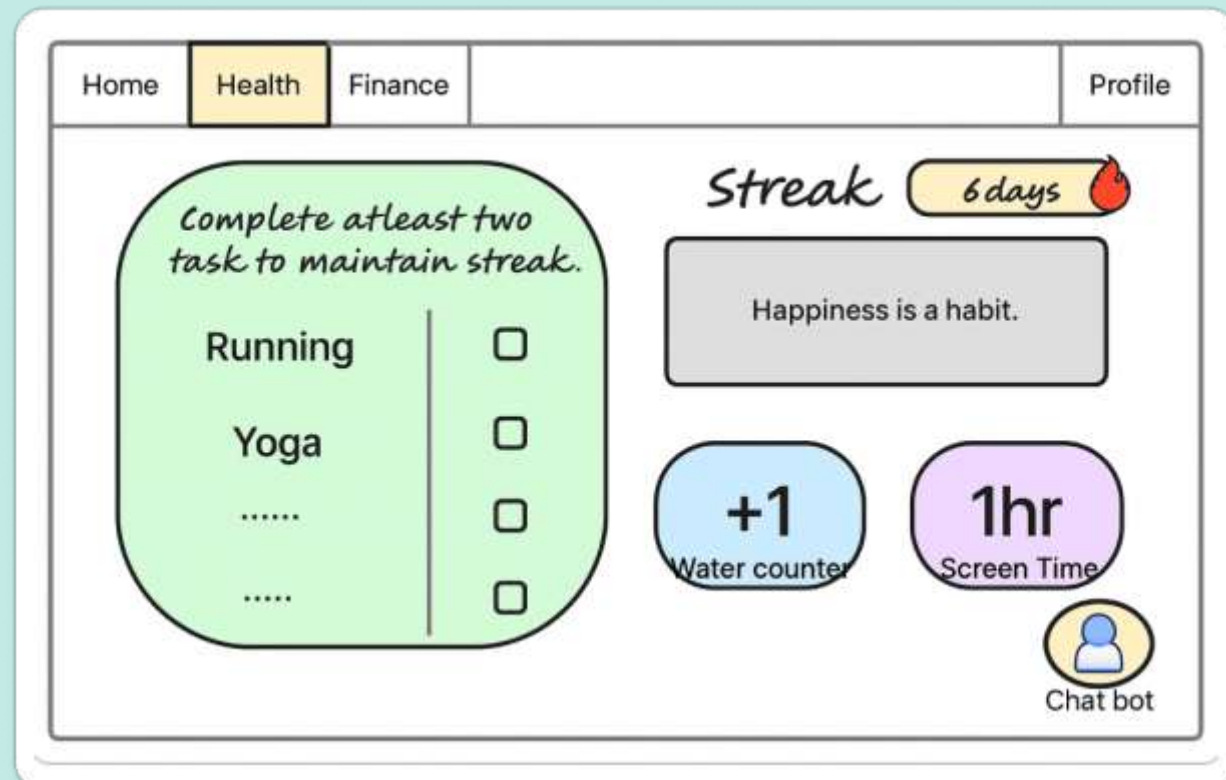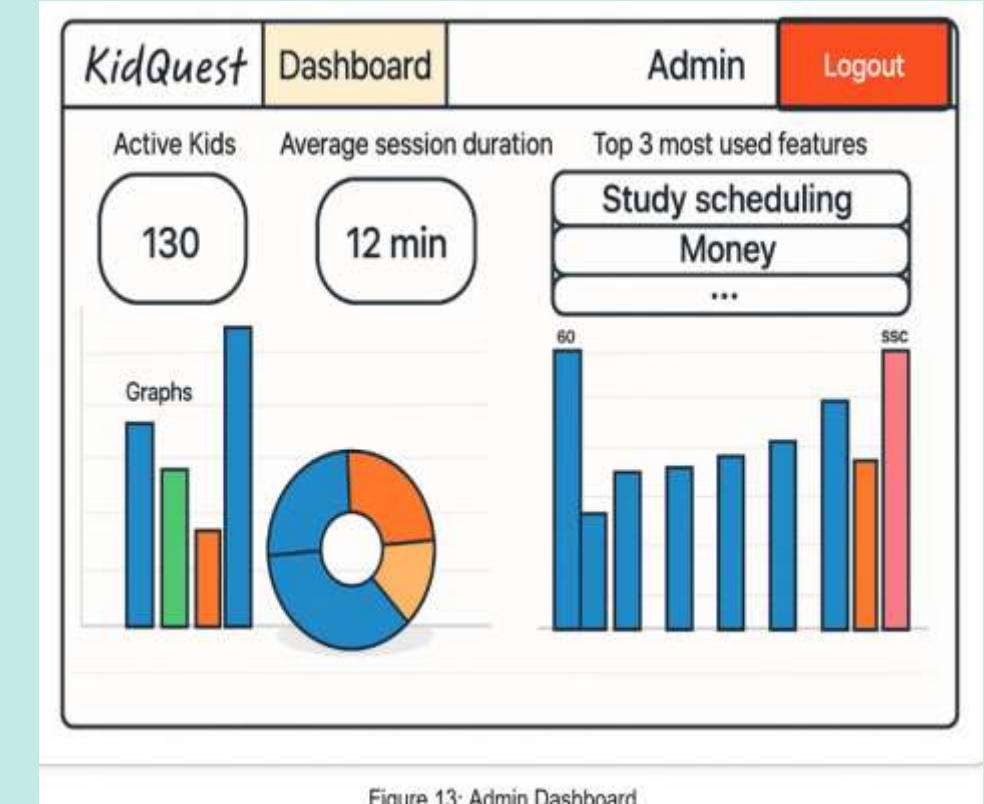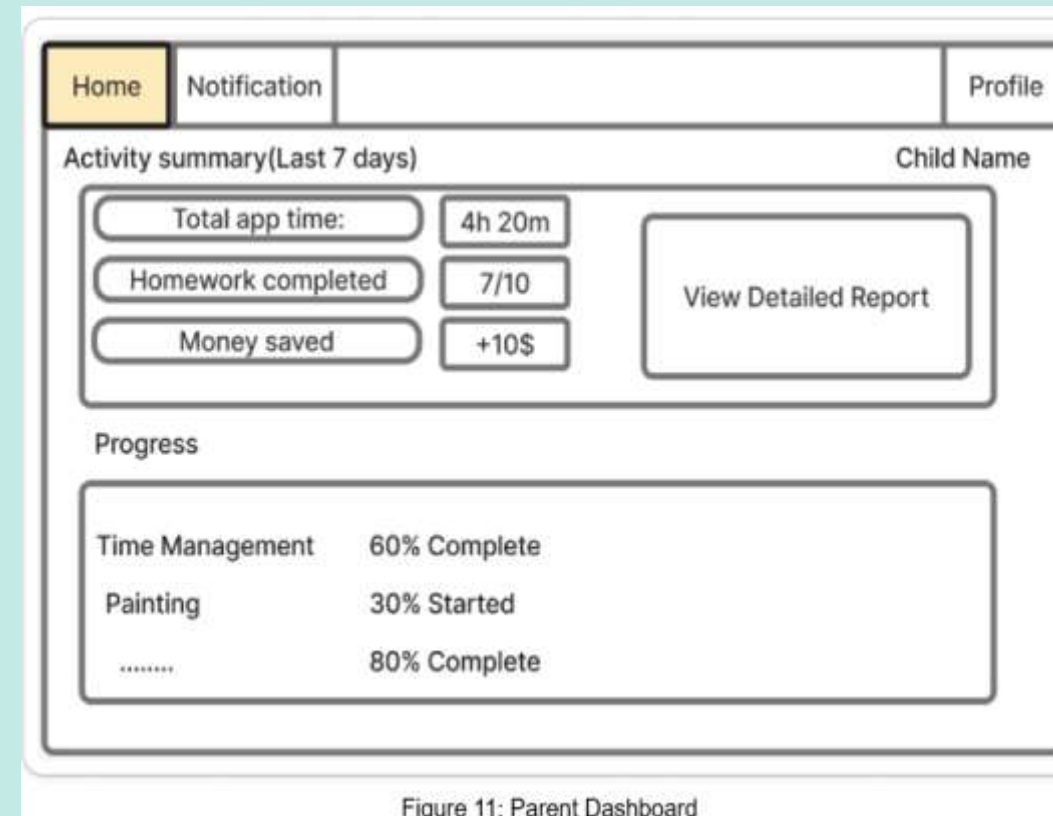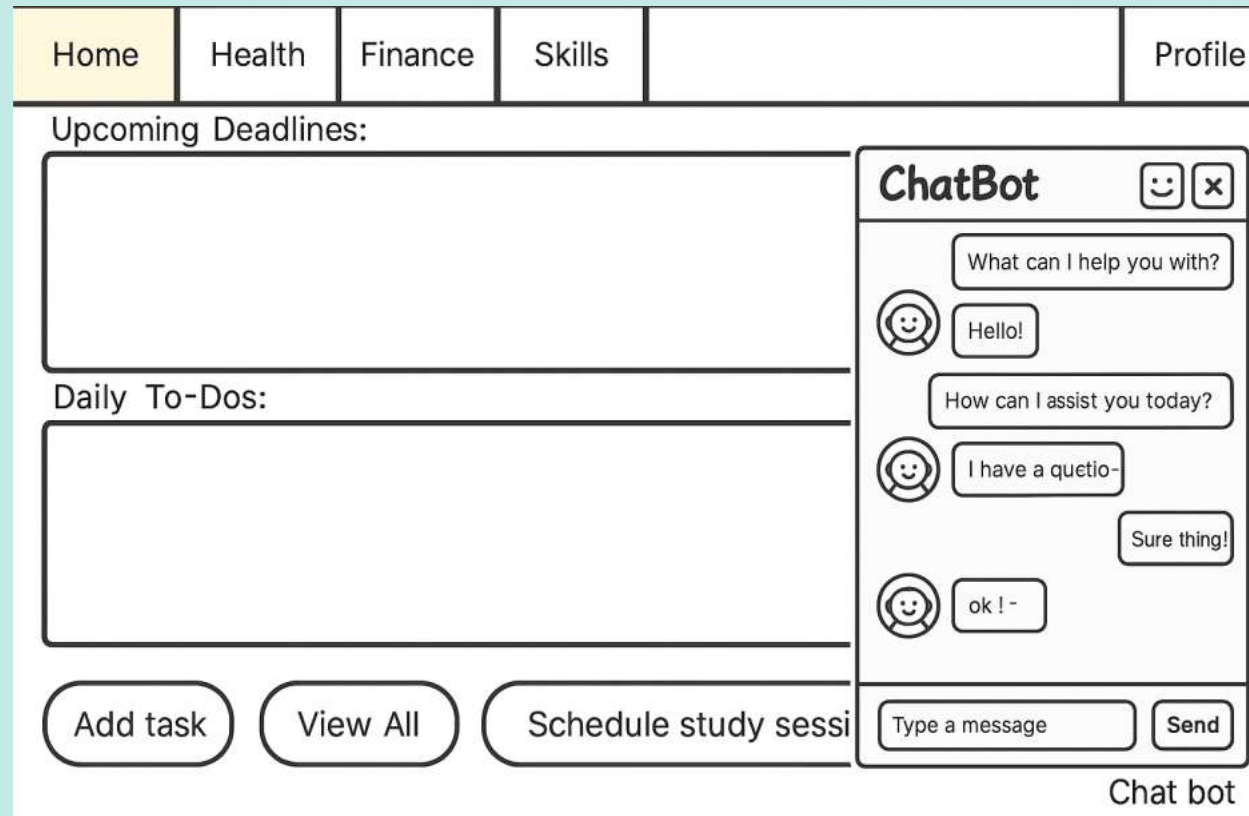| Time-management module | Finance module | Health module |
| Psychometric module | Learning module | Emotional module |

Teachers

| Homework assignment module | Progress tracking module |

Design and Implementation – Wireframe (a few snippets!)

| Home | Health | Finance | Skills | | Profile |

Upcoming Deadlines:

Daily To-Dos:

Add task | View All | Schedule study sessi...

ChatBot

What can I help you with?

Hello!

How can I assist you today?

I have a quetio-

Sure thing!

ok ! -

Type a message | Send

Chat bot

| Home | Notification | | Profile |

Activity summary(Last 7 days) — Child Name

Total app time:	4h 20m
Homework completed	7/10
Money saved	+10$

View Detailed Report

Progress

Time Management	60% Complete
Painting	30% Started
....	80% Complete

Figure 11: Parent Dashboard

KidQuest | Dashboard | Admin | Logout

| Active Kids | Average session duration | Top 3 most used features |
| 130 | 12 min | Study scheduling / Money / ... |

Graphs

Figure 13: Admin Dashboard

| Home | Health | Finance | | Profile |

Complete atleast two task to maintain streak.

Running ☐
Yoga ☐
...... ☐
...... ☐

Streak 6 days

Happiness is a habit.

+1 Water counter

1hr Screen Time

Chat bot

KidQuest | My class | Assignment | Profile

Filter by | Age | App usage | ....

Students			Homework	Report
Student 1			Submitted	Link
Student 2			NA	Link

KidQuest | My class | Assignment | Profile

Current Assignments	Due Date
Time Management	5 June 2025
Healthy Habits	10 June 2025

+ Create new Assignment

Figure 12: Teacher Dashboard

My Quests & Tasks

✕

Today's Adventures

Pending

SOCIAL

Social hw

▶ Start Focus
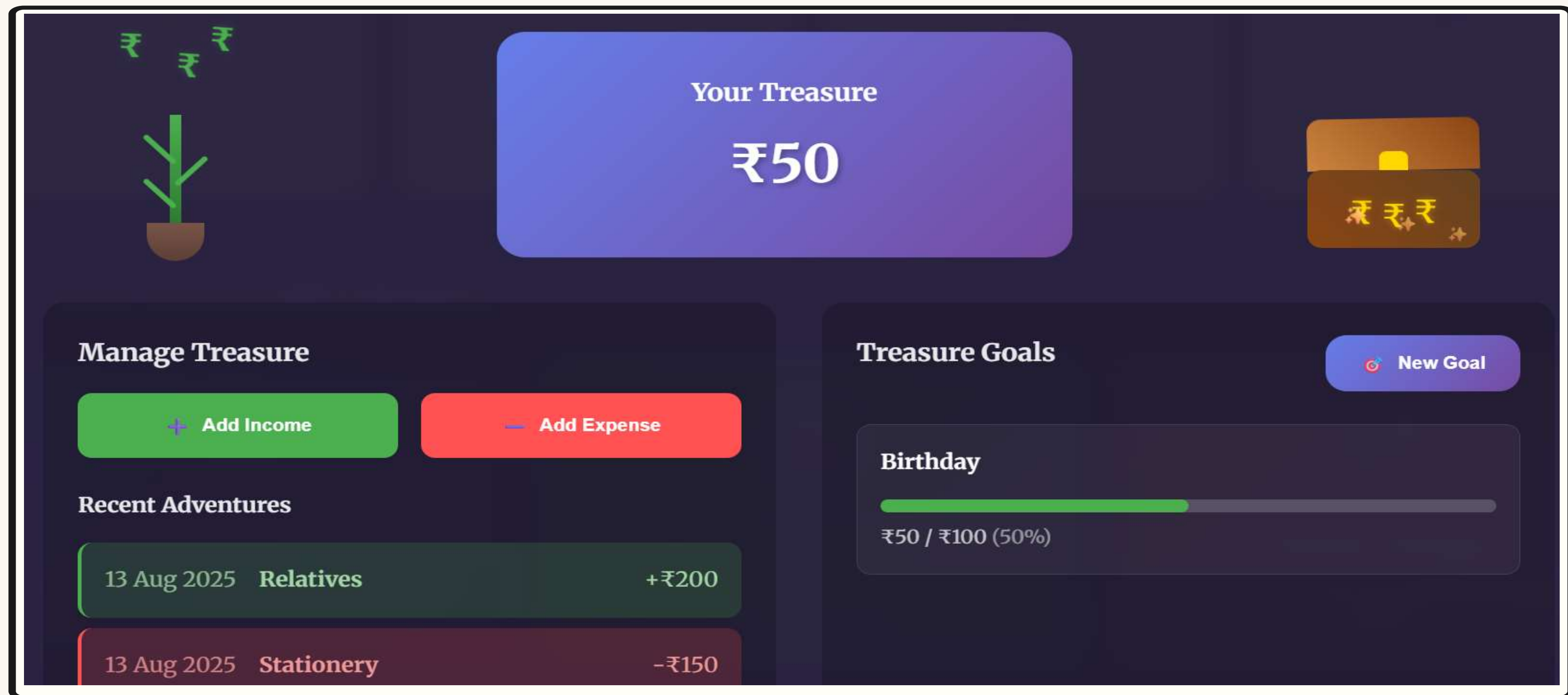
⧗ In Progress

✓ Mark Done

🗑 Remove

Add a New Quest

Quest Title *

Enter your quest title (required)

Subject

e.g., Math, Science, Reading (optional)

Due Date

dd-mm-yyyy

🍅 Pomodoro Timer

— ✕

25:00

Focus Time
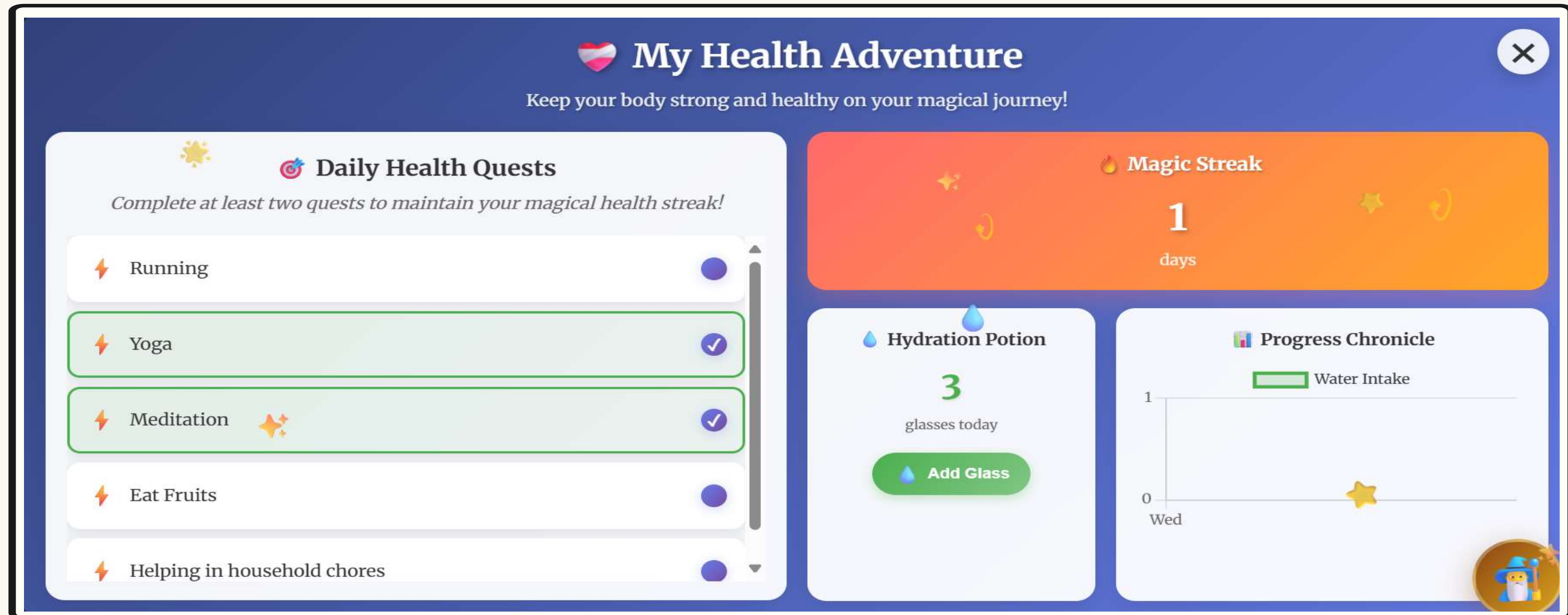
🔁 ▶ ⏭

⚙
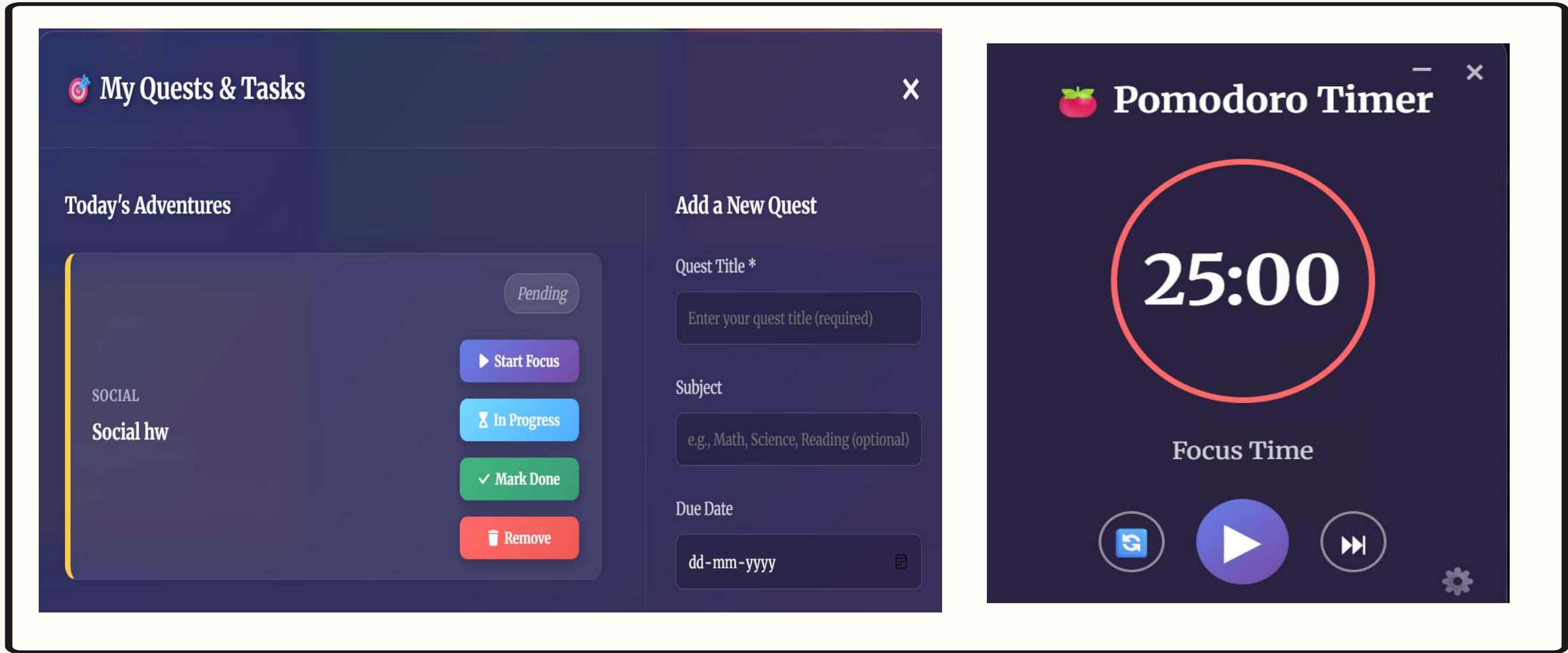
As a student, I want to track my homework and manage my time,
so that I can stay organized and complete my assignments without last-minute stress.

Your Treasure

₹50

Manage Treasure

+ Add Income   — Add Expense

Recent Adventures

| 13 Aug 2025 | Relatives | +₹200 |
| 13 Aug 2025 | Stationery | –₹150 |

Treasure Goals   🎯 New Goal

Birthday

₹50 / ₹100 (50%)

As a student, I want to keep track of my pocket money and savings, so that I can learn good saving and budgeting habits.

💗 My Health Adventure

Keep your body strong and healthy on your magical journey!
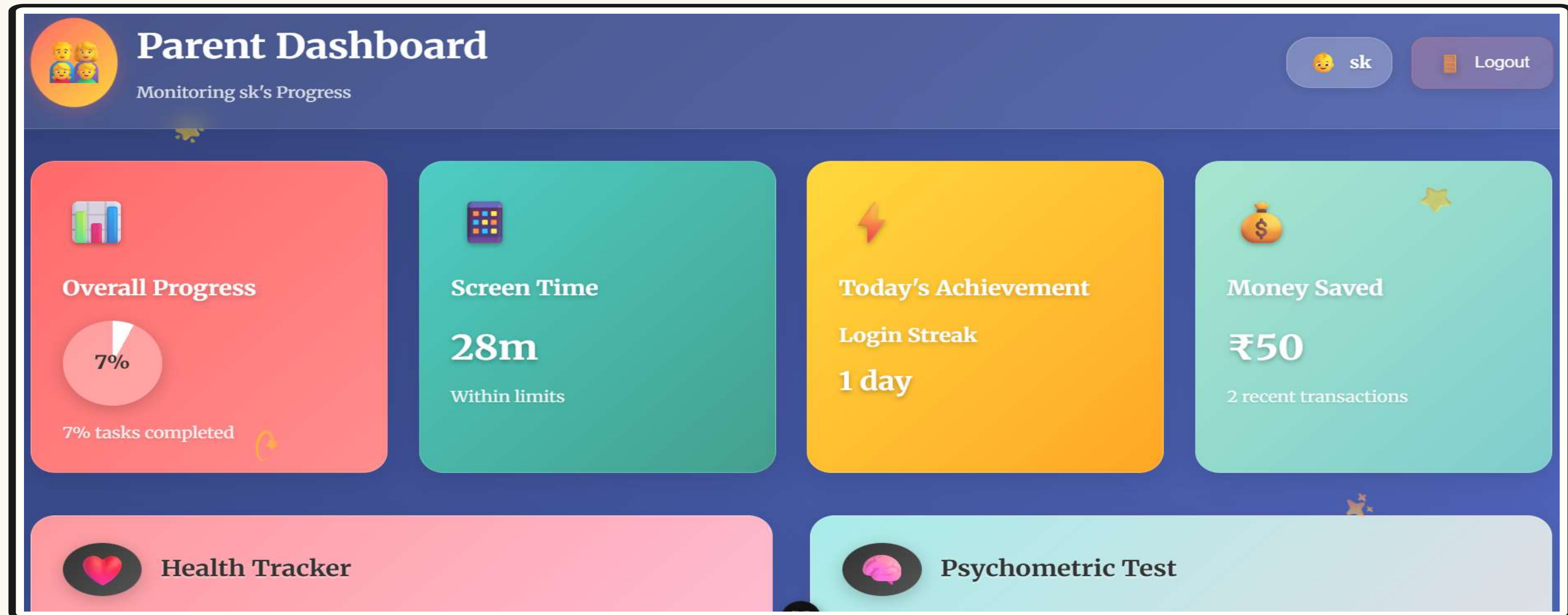
🎯 Daily Health Quests

Complete at least two quests to maintain your magical health streak!

⚡ Running

⚡ Yoga ✓

⚡ Meditation ✨ ✓

⚡ Eat Fruits

⚡ Helping in household chores

🔥 Magic Streak

1

days

💧 Hydration Potion

3

glasses today

💧 **Add Glass**
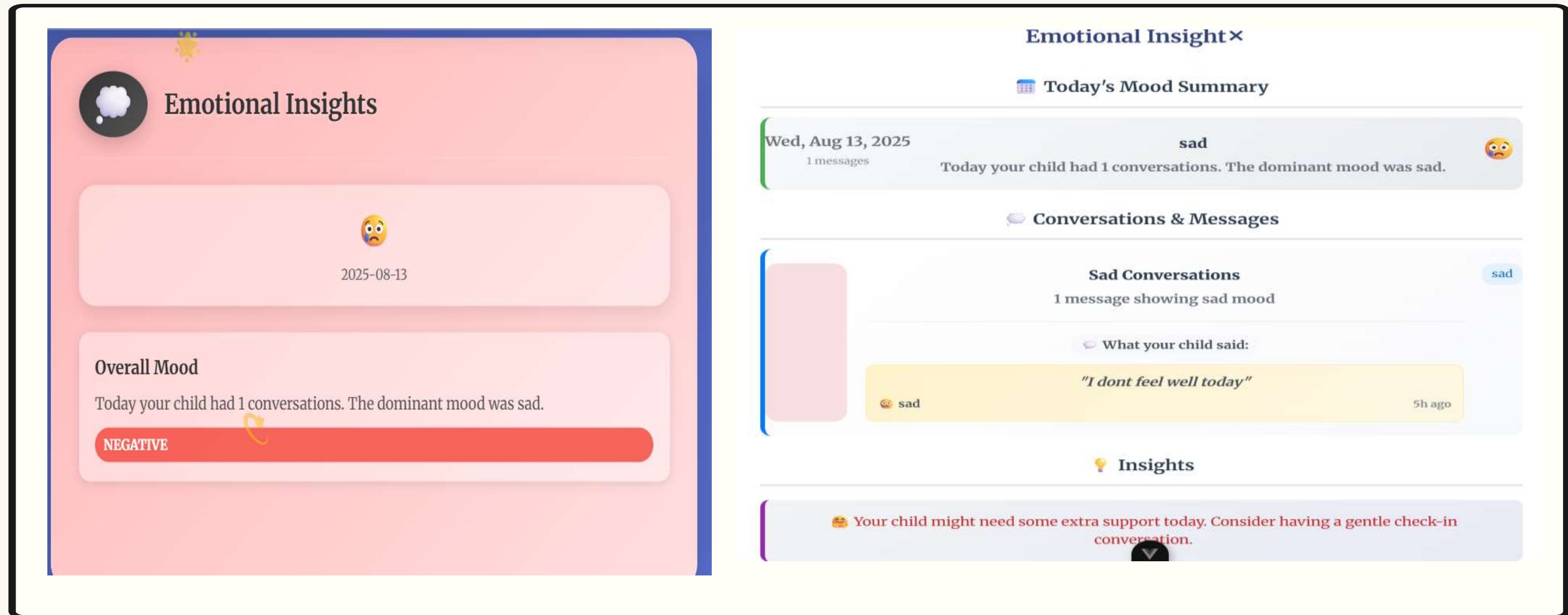
📊 Progress Chronicle

☐ Water Intake

1

0

Wed

As a student, I want to receive reminders to take breaks,
so that I can maintain healthy habits and avoid feeling tired during study sessions

Gandalf the Wise

Your magical guide through life skills adventures

Mood: **Balanced** 😌

I dont feel well today
05:55 pm

Sometimes when we're not feeling well, it can be really tough. Let's take some deep breaths together – breathe in, breathe out. You can always talk to a grown-up, like a parent or teacher, about how you're feeling.

12:25 pm

Share your quest for knowledge with me... ✨
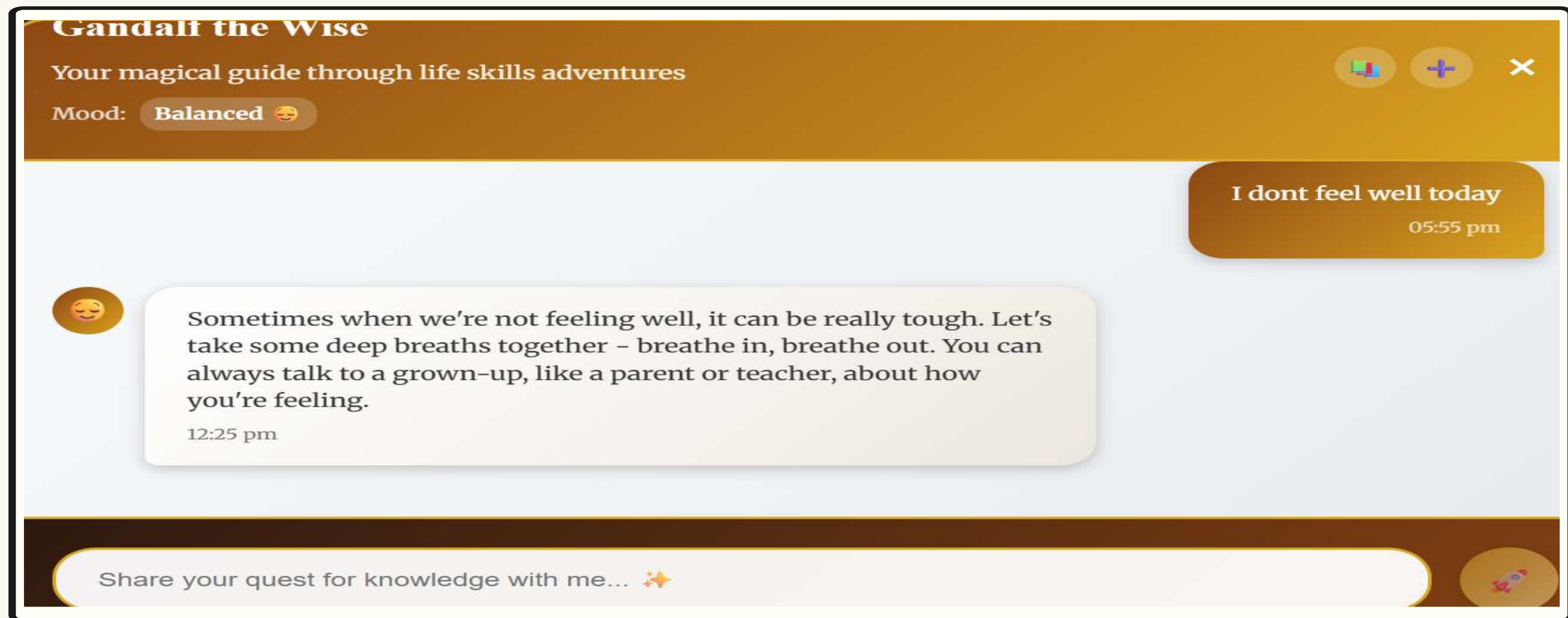
As a student, I want to chat with a friendly AI chatbot or close aide when I feel sad or anxious,
so that I can express my feelings and get support even when adults are not available.

Parent Dashboard

Monitoring sk's Progress

sk   Logout

Overall Progress

7%

7% tasks completed

Screen Time

28m

Within limits

Today's Achievement

Login Streak

1 day

Money Saved

₹50

2 recent transactions

❤️ Health Tracker

🧠 Psychometric Test

As a parent, I want to receive regular updates on my child's progress and app usage, so that I can support their learning and well-being without being intrusive.

Emotional Insights

😨

2025-08-13

Overall Mood

Today your child had 1 conversations. The dominant mood was sad.

NEGATIVE

Emotional Insight✕

📅 **Today's Mood Summary**

Wed, Aug 13, 2025
1 messages

sad

Today your child had 1 conversations. The dominant mood was sad.

😨

💬 **Conversations & Messages**

Sad Conversations   sad

1 message showing sad mood

💬 What your child said:

"I dont feel well today"

😨 sad   5h ago

💡 **Insights**

🤗 Your child might need some extra support today. Consider having a gentle check-in conversation.

As a parent, I want to suggest or approve personalized motivational messages for my child,
so that they feel encouraged and supported in their daily routines.
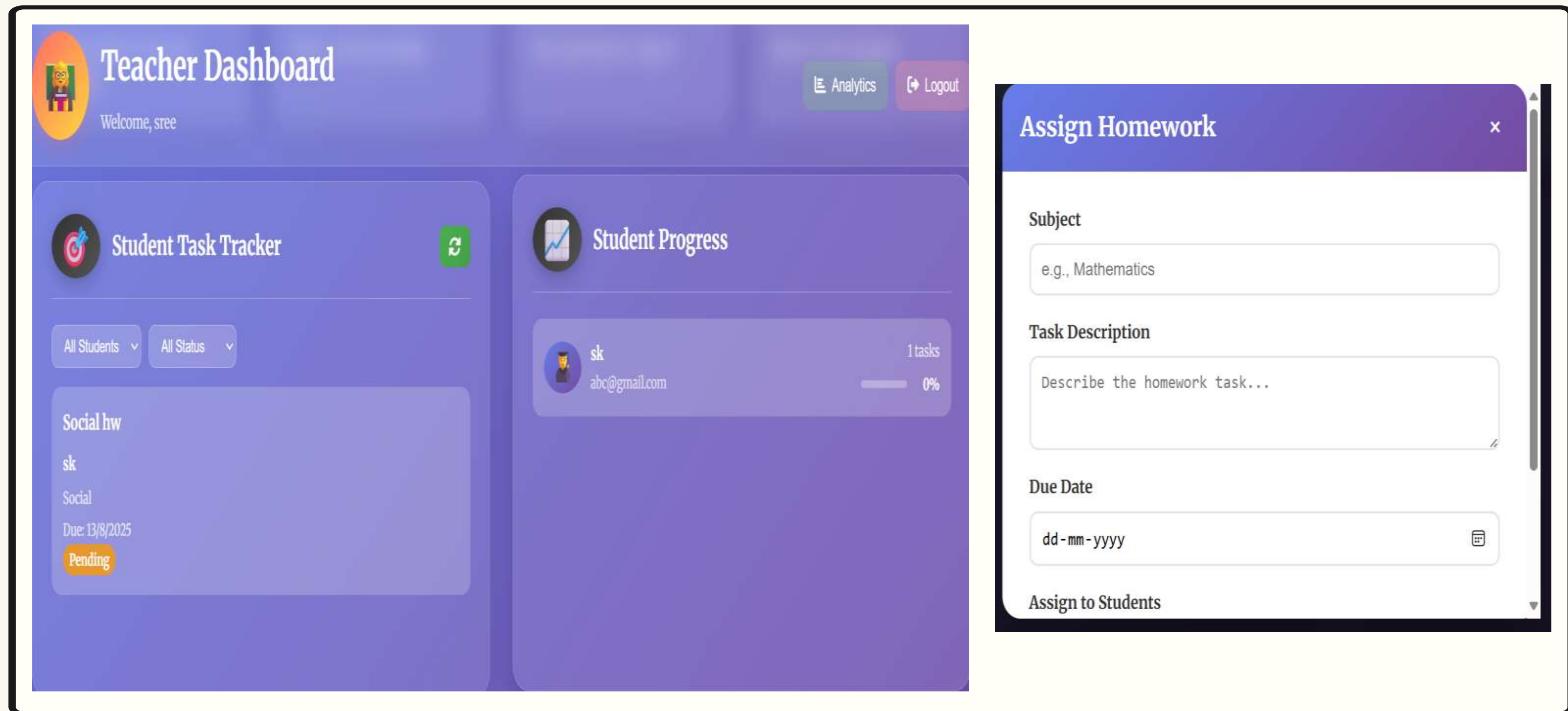
As a teacher, I want to assign and track daily homework for my students, so that I can monitor their progress effectively.
.

Testing

test_files

- Admin_User_CRUD_Test_Documentation.md
- Doodling_Test_Documentation.md
- Finance_Test_Documentation.md
- LLM_Chat_Session_Test_Documentation.md
- Notifications_Test_Documentation.md
- Parent_Dashboard_Test_Documentation.md
- Psychometry_Test_Documentation.md
- Remaining_APIs_Test_Documentation.md
- Task_Tracker_Test_Documentation.md
- Teacher_Dashboard_Test_Documentation.md
- test_achievements.py
- test_admin_user_crud.py
- test_child_dashboard_stats.py
- Test_Documentation_Compiled.md
- Test_Documentation_submission.md
- test_doodling_session.py
- test_finance.py

- test_health_tracker.py
- test_jwt_integration.py
- test_llm_chat_sessions.py
- test_login_streak.py
- test_module_progress.py
- test_motivational_quotes.py
- test_notifications.py
- test_parent_dashboard.py
- test_pomodoro_timer.py
- test_psychometry.py
- test_task_tracker.py
- test_teacher_dashboard.py
- test_user_profile.py

---

backend > 🐍 run_all_tests.py > ...

```python
import sys
import pytest


def main() -> int:
    # Default: defer to pytest.ini for verbosity, warnings, and testpaths
    args = [
        "backend/test_files",
    ]


    # Allow passing through extra args, e.g., to include integration tests
    # Usage examples:
    #   python backend/run_all_tests.py              # unit-style tests only
    #   python backend/run_all_tests.py -m integration # only integration
    #   python backend/run_all_tests.py -m "not integration" -vv
    if len(sys.argv) > 1:
        args = sys.argv[1:]


    return pytest.main(args)


if __name__ == "__main__":
    sys.exit(main())
```

Our tech stack!

DEMO TIME!

THANK YOU!