Table of Contents

CHAPTER 1: PROJECT OVERVIEW

1.1 Project Name and Introduction

Project Name: *StudyPAL*

Introduction:

StudyPAL is a gamified productivity system designed to improve students' daily habits by combining time and task management with virtual pet care. The concept is simple but impactful by just completing real-life tasks to earn rewards, which can be used to feed, grow, and nurture a digital duck pet. By transforming boring study routines into meaningful interactions, StudyPAL aims to make planning, studying, and self-care more enjoyable, motivating, and even help relieve stress for students.

Target Users

StudyPAL is primarily designed for:

- University and college students
- Secondary school students
- Individuals who struggle with:
    - Task procrastination
    - Poor time management
    - Study-life balance
    - Motivation to stay consistent

Many of these users need to handle schoolwork, activities, part-time jobs, and personal well-being all at once. StudyPAL acts as a friendly and supportive companion, helping them stay organized, build healthy habits, and feel more in control of their day-to-day lives.

1.2 Problem Statement

Many users face challenges with staying organized, motivated, and emotionally balanced throughout the semester. Despite having access to digital planners or to-do apps, these tools often feel mechanical and lack emotional connection or incentives. As a result, users may:

- Forget or delay important tasks
- Lose motivation to manage time effectively

- Neglect mental health and self-care routines

There is a need for a more engaging, user-friendly system that not only helps manage tasks but also encourages consistency and personal growth in a fun and interactive way.

1.3 Project Objectives

The main goals of StudyPAL are to:

- Help users stay organized by managing daily tasks
- Motivate users through a fun task-reward system
- Let users feed and grow a virtual duck by completing tasks
- Encourage daily check-ins with a simple emotion picker
- Reducing user stress through small, playful interactions

CHAPTER 2 FEATURES AND FUNCTIONALITIES

2.1 Overview

StudyPAL is designed as a comprehensive mental health support application that addresses the growing challenges university students face with academic stress, anxiety, and depression. The application combines gamification elements, intelligent scheduling, mood tracking, and AI-powered support to create a holistic platform for student wellbeing.

2.2 StudyPAL App - Page Functions Explained

1) Sign Up Page

- **Primary Function:** New user registration and account creation
- **Key Features:** Username creation, secure password setup, initial profile configuration
- **Focus:** First step in establishing personalized mental wellness tracking
- **Data Storage:** Creates user_data.txt file with encrypted credentials

2) Log In Page

- **Primary Function:** User authentication and secure app access
- **Key Features:** Credential verification, password validation, session management
- **Focus:** Ensures privacy and security of sensitive mental health data
- **Data Storage:** Reads and validates information from user_data.txt

3) Main Menu Page

- **Primary Function:** Central dashboard and app navigation hub
- **Key Features:** Virtual pet display, overall progress visualization, level tracking, quick access to all features
- **Focus:** Provides immediate visual feedback on wellness progress through gamification
- **Data Storage:** Displays data from pet_progress.txt and aggregated completion statistics

4) Task Progress Page

- **Primary Function:** Weekly activity tracking and completion visualization
- **Key Features:** Color-coded progress bars for each day, task category breakdown, completion percentages

- **Focus:** Helps identify patterns in productivity and stress levels across the week
- **Data Storage:** Reads and analyzes data from tasks_log.txt to generate visual reports

5) Weekly Timetable Page

- **Primary Function:** Visual schedule management and time planning
- **Key Features:** Hourly time slot display, color-coded task categories, weekly overview
- **Focus:** Prevents overcommitment and ensures balanced scheduling between work and rest
- **Data Storage:** Displays scheduled activities from schedule.txt in calendar format

6) Schedule Task Page

- **Primary Function:** Smart task scheduling and time allocation
- **Key Features:** Stress level assessment, intelligent duration suggestions, time picker, task categorization
- **Focus:** Adapts recommendations based on current stress levels to prevent overwhelm
- **Data Storage:** Saves new scheduled tasks to schedule.txt with timestamp and duration

7) Task Menu Page

- **Primary Function:** Task category selection and activity type navigation
- **Key Features:** Three main categories (Exercise, Study, Entertainment), visual category icons
- **Mental Health Focus:** Encourages balanced lifestyle through diverse activity types
- **Data Storage:** Navigational interface that leads to specific task creation

8) Timer Page

- **Primary Function:** Focused work session management and time tracking
- **Key Features:** Countdown timer, pause/resume controls, session progress indicator, completion notifications
- **Focus:** Implements healthy work patterns and prevents burnout through structured breaks

- **Data Storage:** Records completed sessions in tasks_log.txt with duration and completion status

9) Diary Page

- **Primary Function:** Personal journaling and mood expression platform
- **Key Features:** Daily mood selection, free-form text entry, date tracking, emotional outlet
- **Focus:** Core mental health tool for emotional processing and self-reflection
- **Data Storage:** Saves entries to diary_entries.txt with mood indicators and timestamps

10) AI Chatting Page

- **Primary Function:** Mental health support through conversational AI
- **Key Features:** Real-time chat with AI companion "Flash", stress relief conversations, academic pressure counseling
- **Focus:** Provides immediate mental health support and coping strategies for academic stress

2.3 Integration Between Pages

These ten pages work together to create a comprehensive mental health ecosystem. The scheduling and timer pages prevent academic overwhelm, while the diary and chat pages provide emotional support outlets. The gamification system (main menu and progress pages) maintains engagement with healthy habits, and the task management system ensures balanced lifestyle choices. This integrated approach addresses multiple facets of student mental health simultaneously.

2.4 During Deployment

CORE TECHNOLOGIES

- Java - All app logic and functionality

- XML - UI layouts and design

- Text Files - Database storage (offline)

- Google AI Studio - Chatbot feature

KEY JAVA FILES

- LoginActivity.java - User authentication

- MainMenuActivity.java - Pet progress & main dashboard

- TimerActivity.java - Task timing functionality

- DiaryActivity.java - Mood tracking & journaling

- ChatActivity.java - AI conversation

- FileManager.java - All data read/write operations

DATABASE FILES

- user_data.txt - Login credentials

- pet_progress.txt - Virtual pet evolution

- tasks_log.txt - Task completion records

- diary_entries.txt - Daily mood & journal entries

EXTERNAL LIBRARIES

- MPAndroidChart - Progress visualization

- CalendarView - Weekly timetable

- Google AI API - Mental health chat support