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Marwadi Chandarana Group





Major Project – II (01CE0807)
Review 1 (13/01/2024)

Learn Sync – Your Learning Companion
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1.0 Introduction to Project and Project Management

- 1.1 Project Summary
- 1.2 Purpose
- 1.3 Objective
- 1.4 Scope
- 1.5 Technology & Literature Review
- 1.6 Project Planning

2.0 System Analysis

- 2.1 Study of Current System
- 2.2 Features of LearnSync
- 2.3 Components of LearnSync

3.0 System Design

- 3.1 System Design & Methodology
- 3.2 Database Design

LearnSync: Revolutionizing learning with advanced techniques, gamified journeys, all-in-one hub, and a connected community for excellence.

Our Team's Moto :

Be Precise, on time, just meaningful!



In the exam's embrace, challenges dance, testing resilience's elegant stance.

Vast
Syllabus

Motivation
Hurdles



Time-Bound
Revision

Objectives of LearnSync



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- ✓ **Empowering Aspirants:** Equip aspirants to conquer competitive exams, overcoming challenges with Learn Sync's innovative approach.
- ✓ **UI Excellence:** Craft a sleek UI for Learn Sync, balancing aesthetics and utility seamlessly for user satisfaction.
- ✓ **Cost-Free Advantage:** Provide Learn Sync as a cost-free gem, standing against market competitors, making learning accessible to all.
- ✓ **Accessible, Usable, Scalable:** Design Learn Sync for easy access, usability, and scalable adaptability, meeting diverse learning needs effortlessly.
- ✓ **Streak-Based Motivation:** Introduce Learn Sync's streak-based approach, turning challenges into achievements, fueling continuous motivation for users.



- ✓ **Optimize Learning Schedules:** Efficiently plan studies with Spaced Repetition, Task, and Time Schedulers.
- ✓ **Enhance Focus with Pomodoro Timer:** Boost productivity using Pomodoro Timer for focused study intervals.
- ✓ **Motivate Through Streaks:** Instill motivation with Task Streaks, fostering a consistent learning rhythm.
- ✓ **Build Collaborative Communities:** Foster connections through Friend's Activity Panel, Group Streaks, and Leaderboards.
- ✓ **Organize Information with Flash Cards:** Facilitate effective learning through Flash Cards, promoting information retention.



1. **How to Study Effectively Article**, National Library of Medicine—
[<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5673147/#>]
2. **UI Design and Specification**
[<https://m3.material.io/>]
3. **Dopamine Nation: Finding Balance in the Age of Indulgence – Anna Lembke**, American Psychiatrist
insights on processing of pain and pleasure by brain
4. **Research on “Snapchat Streaks: How Adolescents Metagame Gamification in Social Media”** by Europe PMC -
[<https://europepmc.org/article/ppr/ppr324038>]
5. **Using Gamification in Education: A Systematic Literature Review**, Research Gate Article -
[https://www.researchgate.net/publication/330093575_Using_Gamification_in_Education_A_Systematic_Literature_Review]



Project Planning for LearnSync – Agile Methodology



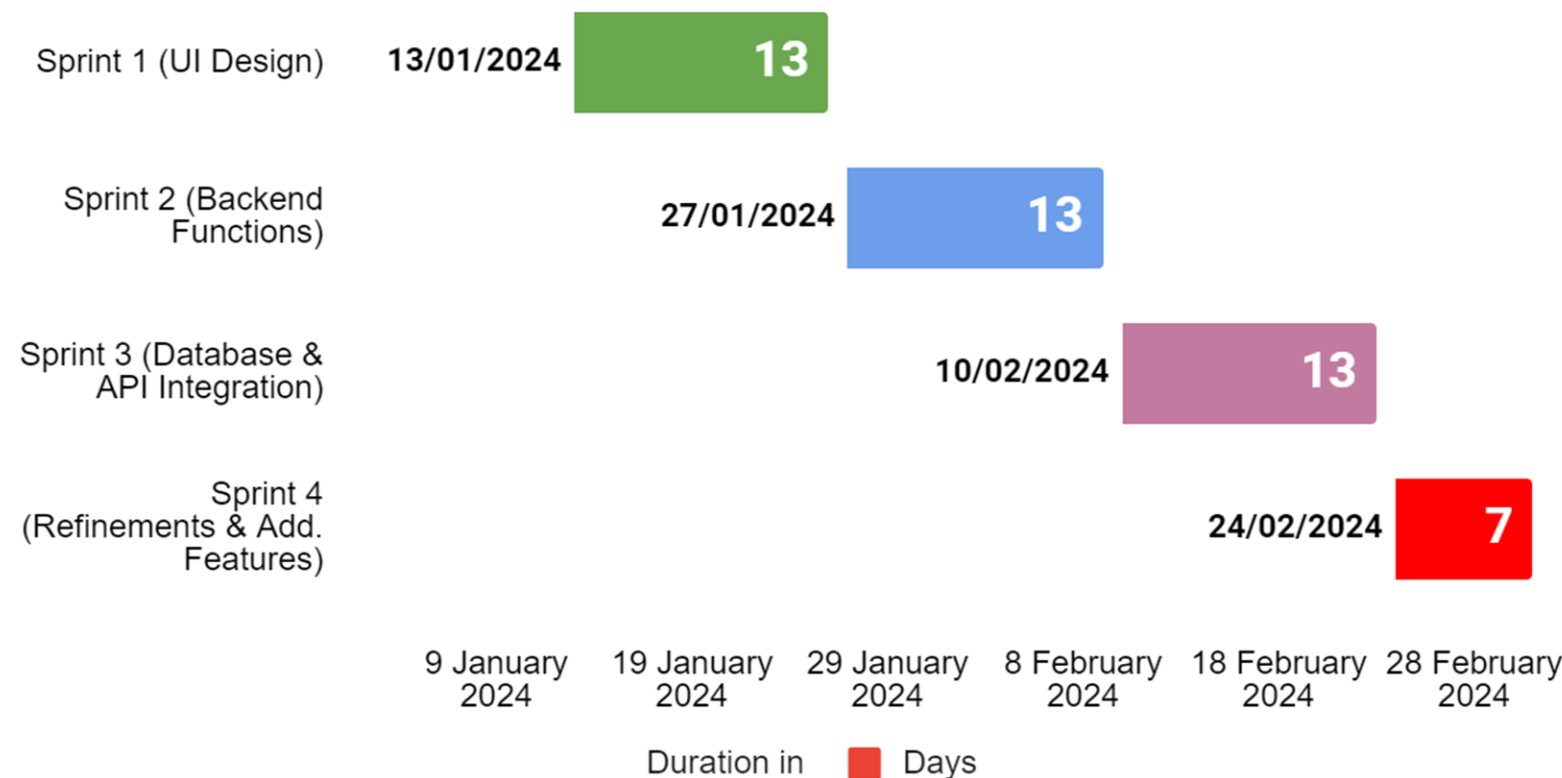
Agile Scrum is a flexible project management framework emphasizing collaboration, iterative progress in short sprints, and continuous improvement, providing adaptability for changing requirements and efficient team communication.

Why Agile -> SCRUM? Scrum is ideal for LearnSync's small team of three, ensuring clear roles, close collaboration, and efficient task distribution.

Sprint	Start Date	End Date	Goals/Tasks
Sprint 1	13/01/2024	26/01/2024	UI Design
Sprint 2	27/01/2024	09/02/2024	Backend Functions
Sprint 3	10/02/2024	23/02/2024	Database & API Integration
Sprint 4	24/02/2024	02/03/2024	Refinements & Additional Features



Gantt Chart for LearnSync



1. Study of Current Systems their Major Problems & Weaknesses

2. Requirements of New System



I. **Fragmentation** hampers seamless learning, **requiring navigation** across **multiple scattered tools**.

✓ **Unified Platform: Integrate various tools into a cohesive, unified learning platform.**

II. **Gamification lacks immersion**, missing opportunities for a motivating learning experience.

✓ **Immersive Gamification: Implement engaging and motivating gamification for a truly immersive experience.**

III. **Overlooked techniques** like spaced repetition limit memory retention enhancement .

✓ **Comprehensive Techniques: Prioritize memory enhancement techniques in to design.**

IV. Social platforms **lack the** warmth of a **real community for learning**.

✓ **Vibrant Community Integration: Foster a warm and vibrant community atmosphere for collaborative learning.**

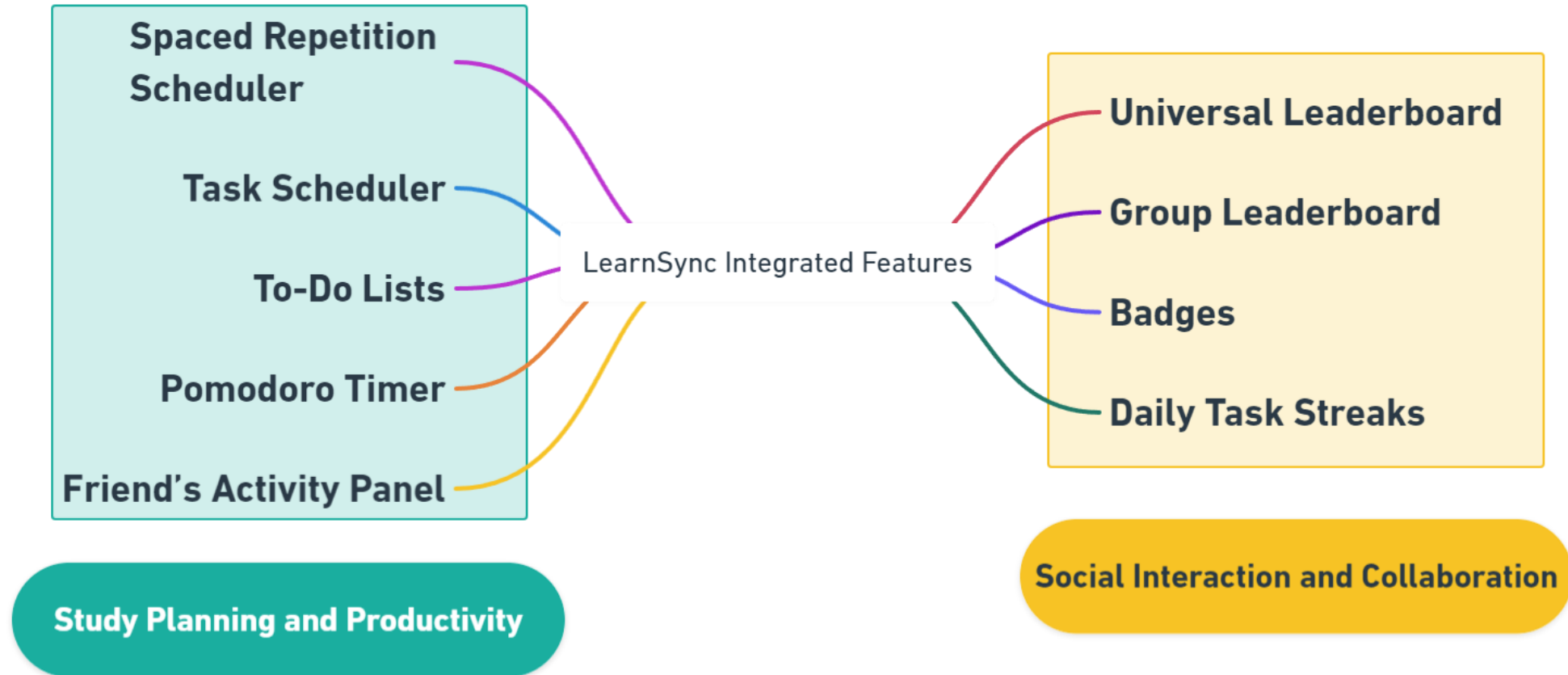
V. Some tools suffer from **unfriendly user interfaces**, hindering the learning journey.

✓ **Sleek User Interface: Design a modern and user-friendly interface for a smooth learning journey.**

Features of LearnSync : Activities + Easy Integration with Native Tools



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Components of LearnSync (Overview of Modules / Pages)

Introduction & Support	User Interactions	Social Interaction	User Account
Home/Welcome Page	Dashboard	Friend's Activity Panel	Profile
Login/Registration		Domain Leaderboard	Integration
About Us	Modules Accessible on Dashboard	Group Leaderboard	Leaderboard
FAQs	I. Study Planning II. Spaced Repetition Scheduler III. Task Scheduler IV. To-Do Lists V. Pomodoro Timer VI. Links to Other Pages	Badges	Streaks and Challenges
Privacy Policy		Daily Tasks Streaks	Settings
		Group + Task Streaks	Error Pages

API Integrations

Google Calendar & Email API: Seamless scheduling and reminders for enhanced study planning.

Google OAuth API: Secure user authentication, leveraging Google's trusted authentication system.

MongoDB: Efficient, scalable, and flexible NoSQL database for robust data management.

Basic Technologies & Integrations Used:

Technologies Used

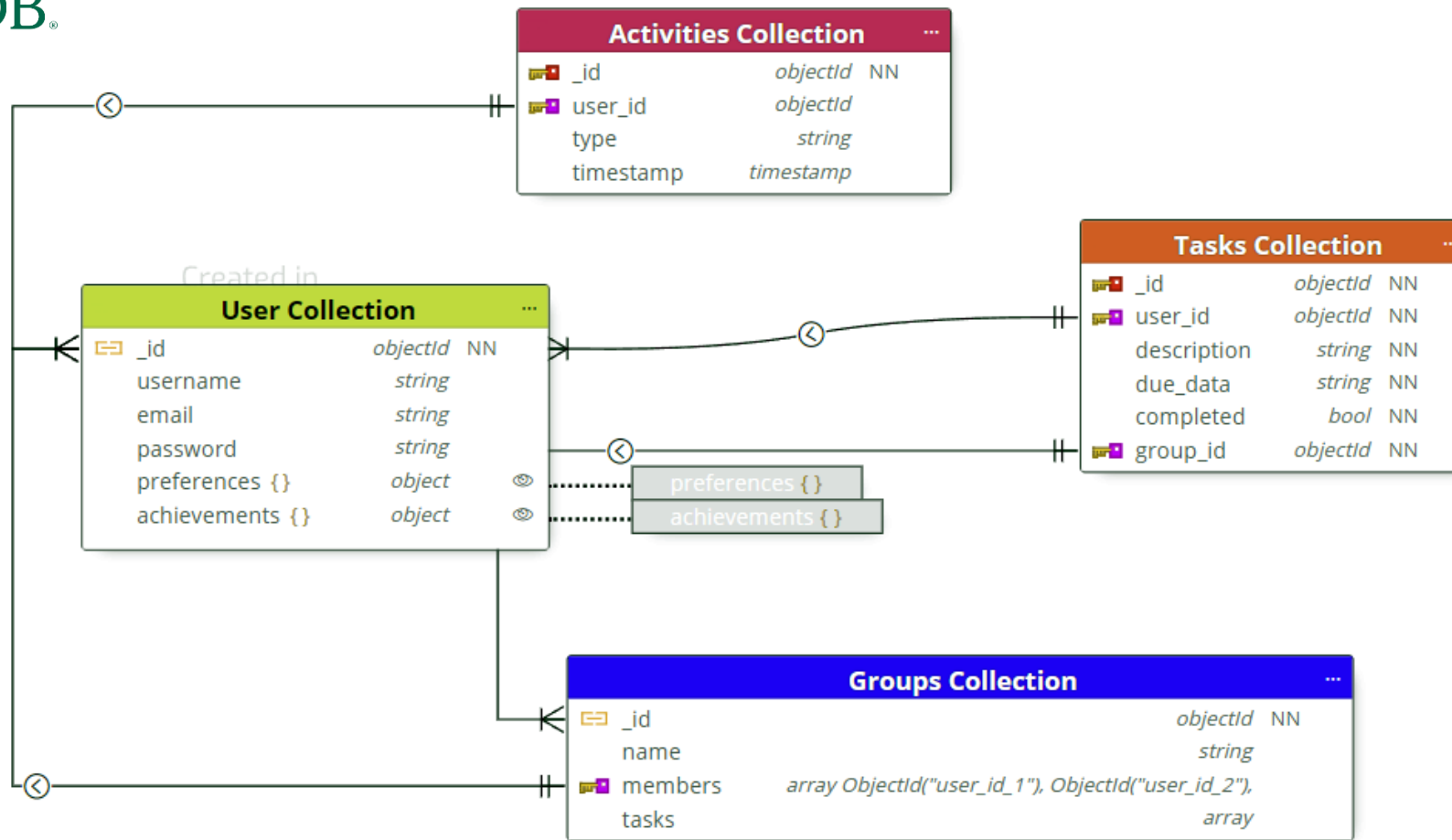
Front-End: HTML, CSS, JS: Modern, interactive, and responsive user interface for an engaging experience.

Backend Framework: Flask, Python: Python's simplicity and Flask's flexibility for efficient backend development.

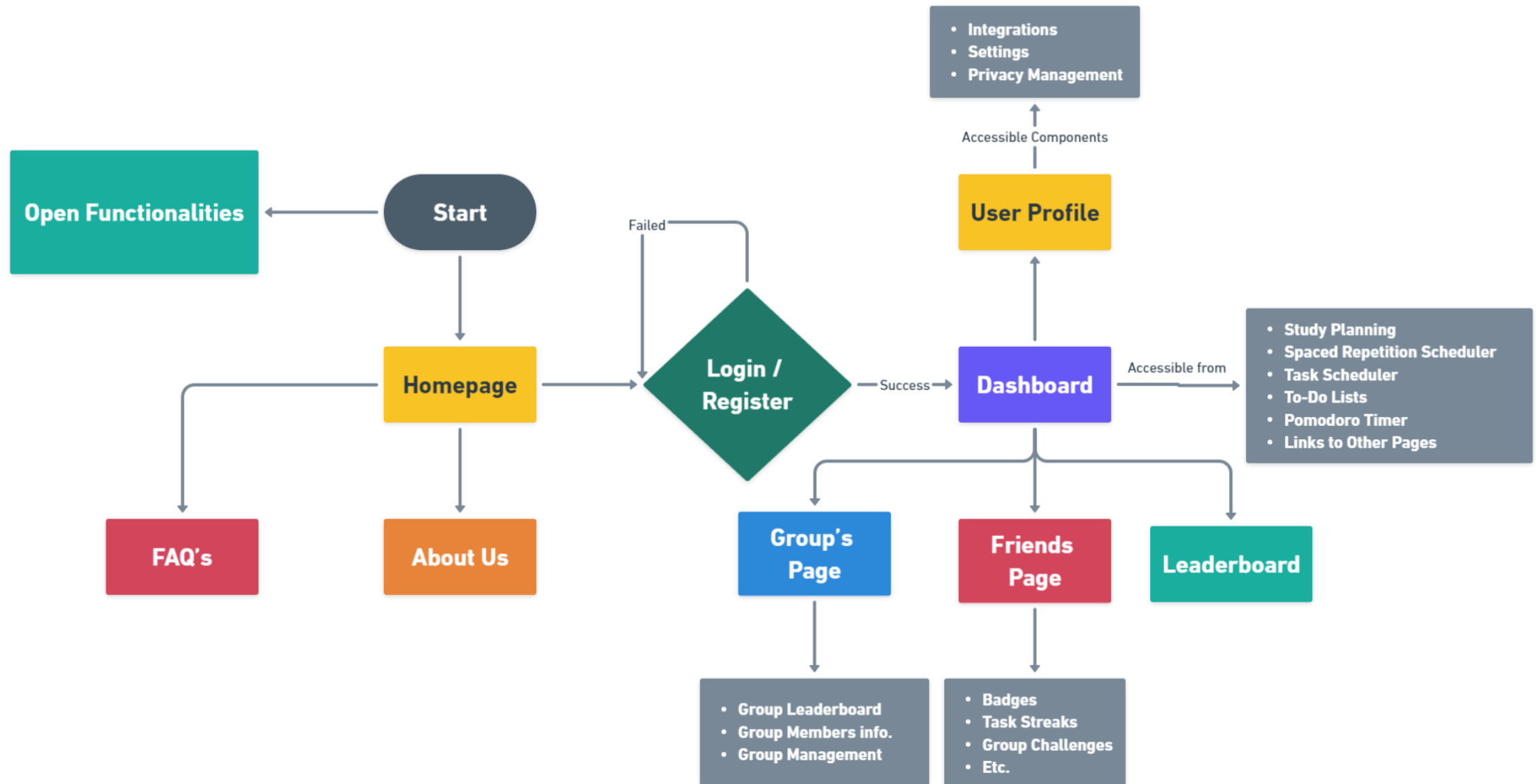
Database: MongoDB: NoSQL advantage, offering scalability and adaptability for LearnSync's data.

User Authentication: Flask Login, Google OAuth V2.0: Secure user login, combining Flask simplicity with Google's authentication reliability.

No-SQL Database : MongoDB Design For LearnSync



User Flow Diagram for LearnSync Basic



THANK YOU

