Requirements Document – StudyPilot

Document-Specific Task Matrix

Task	Team Member Responsible
Functional Requirements	Cevdet Onat Cerit, Alvin Dora Akıncı
Non-Functional Requirements	Nehir Aydın, Nehir Tıraş, Emin Arslan

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Functional Requirements

The system must provide the following functionalities:

1. **Task Management**

   ○ The system must allow users to add, edit, delete, and categorize tasks such as courses, assignments, and exams.

2. **Smart Prioritization**

   ○ The system must automatically order tasks.

3. **Pomodoro Timer**

   ○ The system must include a built-in Pomodoro timer with configurable session and break durations to enhance focus.

4. **Spotify Integration**

   ○ The system must connect to Spotify via API to play personalized study playlists or focus music.

5. **Weather Integration**

   ○ The system must fetch local weather data and provide study environment suggestions (e.g., "It's sunny try studying outdoors!").

6. **Statistics and Progress Tracking**

   ○ The system must visualize user performance through daily, weekly, and monthly statistics (e.g., completed tasks, total focus time, success rate).

7. **Notifications & Reminders**

   ○ The system must remind users about approaching deadlines and Pomodoro sessions via in-app notifications.

8. **Responsive Web Interface**

   ○ The application must function properly on different screen sizes (desktop, tablet, mobile).

9. **Daily Study Suggestions**

   ○ The system should generate daily "Study Plan" recommendations based on past activity and current pending tasks.

10. **Motivational Quote Generator**

   ○ The system should display short motivational messages or quotes after each Pomodoro session or daily completion milestone.

Non-Functional Requirements

The system must meet the following quality standards:

1. **Performance & Speed**

   ○ The application must load main features (dashboard, Pomodoro timer, task list) within **2 seconds**.

2. **Usability**

   ○ The interface must be intuitive, visually clear, and easy to navigate for all student profiles.

3. **Cross-Browser Compatibility**

   ○ The web app must work consistently on **Chrome, Edge, Safari, and Firefox** browsers.

4. **Security & Privacy**

   ○ The app must not store sensitive data externally; all task data is stored locally in the browser's local storage.

5. **Reliability & Availability**

    ○ The application must maintain **99% uptime** and handle real-time updates (e.g., timer and API responses) without failure.

6. **Scalability**

    ○ The architecture must allow future expansion, such as user accounts or cloud sync in later versions.

Effort Estimation

Method Used: Expert Judgment

Effort estimation has been performed using the **Expert Judgment** method, where the team evaluated the complexity and time requirements of each project phase based on their technical experience.

Effort Estimation for Each Phase

Phase	Start Date	End Date	Total Effort (Person-Hours)	Per Person (5 Members)
Requirements Gathering	15/10/2025	28/10/2025	20	10
Design	30/11/2025	8/11/2025	15	5
Development	4/11/2025	25/11/2025	50	20
Testing	21/11/2025	30/11/2025	20	10
Deployment	3/12/2025	6/12/2025	10	3
Closure	8/12/2025		5	2
Total Effort			**120**	**24 per person**

Task Assignments

Team Member	Assigned Tasks	Total Effort (Hours)
Cevdet Onat Cerit	Frontend Development (UI, Pomodoro Timer), Testing	24
Alvin Dora Akıncı	Backend Development (Spotify & Weather APIs), Project Management	24
Emin Arslan	Frontend Design, Task Management Module	24
Nehir Tıraş	UI/UX Design, Documentation	24
Nehir Aydın	Requirements Analysis, Testing, Quality Assurance	24

Each team member is assigned **equal effort (24 hours)** to maintain balanced contribution and accountability across all project phases.

Estimation Notes

- Effort distribution ensures equal workload aligned with each member's strengths.

- Development phase requires the highest time due to integration tasks (Spotify, Weather, and Pomodoro).

- Testing and documentation efforts overlap with development for iterative improvements.

This estimation will be revisited throughout the semester to ensure accuracy and adjust according to real progress and task complexity.