# Acceptance Tests and Acceptance Criteria


Cevdet Onat Cerit – 231101078
Alvin Dora Akıncı – 231101052
Emin Arslan – 231101007
Nehir Tıraş – 231101065
Nehir Aydın – 231101053

---

**Task Matrix**

| Section | Responsible |
|---|---|
| Acceptance Criteria | Nehir Aydın |
| Test Case Design | Emin Arslan |
| Scenario Mapping | Alvin Dora Akıncı |
| Document Editing | Nehir Tıraş & Cevdet Onat Cerit |

---

**Table of Contents**

---

## 1. Introduction

This document defines acceptance criteria and acceptance test cases for the **five use cases selected in the PA2 Design Document**.
These acceptance tests ensure that the implemented demo correctly satisfies functional and non-functional requirements defined earlier in PA1 and PA2.

The tests evaluate end-to-end behavior from a user perspective and validate integration between modules such as TaskManager, Pomodoro Engine, Prioritizer, SpotifyService, and WeatherService.

---

## 2. Selected Scenarios (From PA2)

According to PA2 Section 3.1, the following five use cases were selected:

**Scenario 1 — Task Creation**

The user creates, edits, and deletes tasks.

**Scenario 2 — Pomodoro Study Session**

The user starts, pauses, and completes Pomodoro sessions.

**Scenario 3 — Spotify Focus Playlist Playback**

The system retrieves and displays focus playlists using Spotify Web API.

**Scenario 4 — Smart Task Prioritization**

The system sorts tasks based on deadlines, workload, and task type weight.

**Scenario 5 — Weather-Based Study Recommendation**

The system fetches weather conditions and creates personalized study suggestions.

---

## 3. Acceptance Criteria

Below are PA2-aligned acceptance criteria for each scenario.

---

### 3.1 Scenario 1 – Task Creation

**AC1.1** – The user must be able to create a task using the Add Task interface.
**AC1.2** – Newly created tasks must be saved in LocalStorage.
**AC1.3** – The task must appear instantly on the Task page/dashboard.
**AC1.4** – The system must prevent creating tasks with missing required fields.
**AC1.5** – The user must be able to delete or edit an existing task.
**AC1.6** – All task changes must persist after page reload.

---

### 3.2 Scenario 2 – Pomodoro Study Session

**AC2.1** – The timer must start counting immediately after clicking “Start”.
**AC2.2** – The user must be able to pause and resume the session.
**AC2.3** – Timer drift must remain < 100 ms per cycle.
**AC2.4** – A completed session must be logged in Analytics.
**AC2.5** – Break cycles must trigger automatically after a session.

---

### 3.3 Scenario 3 – Spotify Focus Playlist Playback

**AC3.1** – The user must successfully authenticate using PKCE OAuth.
**AC3.2** – Focus playlists must load within 3 seconds.
**AC3.3** – The playlist must display correct track titles and metadata.
**AC3.4** – Spotify API requests must stay below 30 req/min.
**AC3.5** – If Spotify is unreachable, an error message or fallback state must appear.

---

### 3.4 Scenario 4 – Smart Task Prioritization

**AC4.1** – The system must sort tasks based on:

- Deadline proximity
- Task type weight
- Estimated workload
  (as defined in PA2 Section 2.2 Smart Prioritization Engine)

**AC4.2** – Sorted order must be updated dynamically when a new task is added.
**AC4.3** – Sorting must be stable and deterministic.
**AC4.4** – The prioritization algorithm must execute within < 200 ms.

---

### 3.5 Scenario 5 – Weather-Based Study Recommendation

**AC5.1** – Weather data must be retrieved from OpenWeatherMap API.
**AC5.2** – Temperature, condition, and icon must appear on the dashboard.
**AC5.3** – Personalized study suggestion must be generated (e.g., "Cold → Study indoors").
**AC5.4** – Data must refresh at intervals ≥ 10 minutes.
**AC5.5** – If API fails, cached values must be used where available.

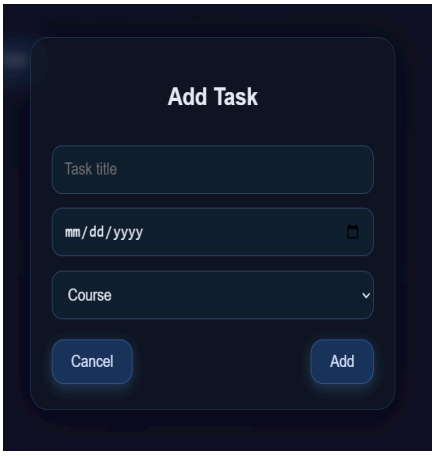
---

## 4. Acceptance Test Cases

---

**AT-01 — Task Creation**

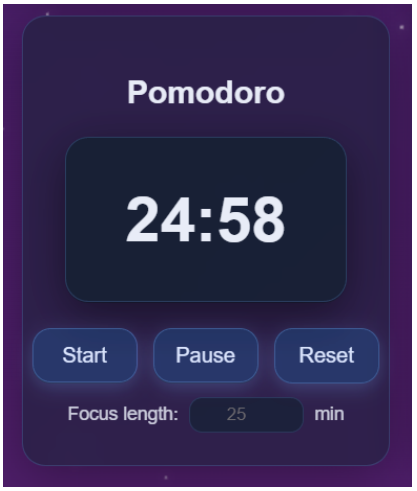
| Field | Description |
|---|---|
| **Scenario** | Task Creation |
| **Preconditions** | Task page open |
| **Steps** | 1. Click Add Task 2. Enter title & deadline 3. Save |
| **Expected Result** | Task appears immediately & is stored in LocalStorage |




---

### AT-02 — Pomodoro Study Session

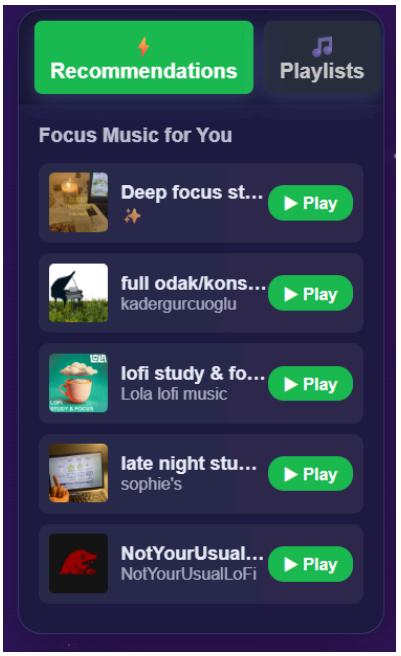
| Field | Description |
|---|---|
| **Scenario** | Pomodoro Session |
| **Preconditions** | Timer screen loaded |
| **Steps** | 1. Start timer 2. Wait 1 minute |
| **Expected Result** | Drift < 100 ms; pause/resume functional; logs update |




---

### AT-03 — Spotify Playlist Playback

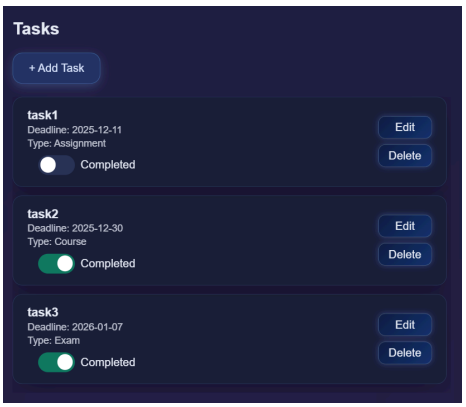
| Field | Description |
|---|---|
| **Scenario** | Spotify Integration |
| **Preconditions** | User authenticated (PKCE) |
| **Steps** | 1. Open Focus Music 2. Select playlist |
| **Expected Result** | Playlist loads < 3 seconds; track list visible |




---

### AT-04 — Smart Task Prioritization

| Field | Description |
|---|---|
| **Scenario** | Prioritization Algorithm |
| **Preconditions** | At least 3 tasks exist |
| **Steps** | Add tasks with different deadlines. |
| **Expected Result** | Tasks sorted based on priority rules in PA2 Section 2. |



---

**AT-05 — Weather-Based Study Recommendation**

| Field | Description |
|---|---|
| **Scenario** | Weather & Recommendation |
| **Preconditions** | Internet active |
| **Steps** | Open dashboard |
| **Expected Result** | Weather + suggestion displayed correctly |


---

## 5. Traceability Matrix

| PA2 Use Case | PA3 Test ID | PA2 Requirement Source |
|---|---|---|
| Task Creation | AT-01 | Functional Requirement 1 |
| Pomodoro Session | AT-02 | Functional Requirement 3 |
| Spotify Playback | AT-03 | Functional Requirement 4 |
| Smart Prioritization | AT-04 | Functional Requirement 2 |
| Weather Recommendation | AT-05 | Functional Requirement 5 |