DOCUMENTATION WORKSHOP-1 PROJECT OBJECT-ORIENTED PROGRAMMING: NOTION (NOTES APP)

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Object-oriented Programming

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OBJECTIVES

GENERAL OBJETIVE

      The overall objective of the project is to develop an application using object-oriented programming based on a simplified version of the Notion mobile notes app.

PRIMARY OBJETIVES

      The primary objective is to recreate the app's core features, such as

- Creating

- editing,

- organizing

tasks, notes, and schedules in a simplified form but with the same functionality.

SECUNDARY OBJETIVES

      The secondary objectives are to create a interface

- clean

- esthetically pleasing

- easy-to-use

by implementing search and organization features.

REQUERIMENTS

-Functional Requirements

- |Note and Task Management
- Create notes with basic content: text, lists, and labels.
- Edit existing notes with simple formatting options (bold, italics, bullets).
- Delete notes or tasks when no longer needed.

|Content Organization

- Category notes and tasks using customizable categories or labels.
- Sort notes by creation or last modification date.
- Implement a basic search function to locate notes by keywords.

|Reminder Scheduling

- Set local reminders (on-device notifications) for important tasks.

|Local Storage

- Automatically save data to the device's internal storage without requiring an internet connection.
- The app must automatically save changes made to notes to prevent data loss in the event of an unexpected shutdown.

-Non-Functional Requirements

|Performance

- The app must load any screen in less than 5 seconds.
- Ability to manage up to 100 notes without affecting performance

|Ease of Use

- Simple and minimalist interface with intuitive navigation based on buttons and basic gestures.
- Estimated learning time for new users: less than 5 minutes.
- Design optimized for standard mobile screens.

|Security (Basic Level)

- Data within the app will not be leaked to third parties
- Only the app user can see its contents

|Compatibility (Basic Level)

- Compatible with Android devices.

USER STORIES

User history	TITLE Student Work	PRIORITY HIGH
	As: Student	
	I want: to create a note about an activity they left at my university	
	To: remember to do it	
Acceptance Criteria:	**Given** that I am in the note's application	
	When I enter a title and content for the new note	
	Then The note must be saved correctly and must be visible in its respective place	

User history	TITLE New Goal	PRIORITY HIGH
	As: Cyclist	
	I want: To edit an existing note or task where I previously set my goal	
	To: mark it as accomplished	
Acceptance Criteria:	**Given** that I am in the note's application	
	When I enter a title and content for the new note	
	Then The note must be saved correctly and must be visible in its respective place	

User history	TITLE Event	PRIORITY HIGH
	As: Event Planner	
	I want to eliminate unnecessary notes or tasks	
	To: organize my future events	
Acceptance Criteria:	**When** I select it **Then** I should have an option to delete it. **Given** that I selected a note or task for deletion **When** I confirm the deletion **Then** the note or task should no longer appear in my menu	

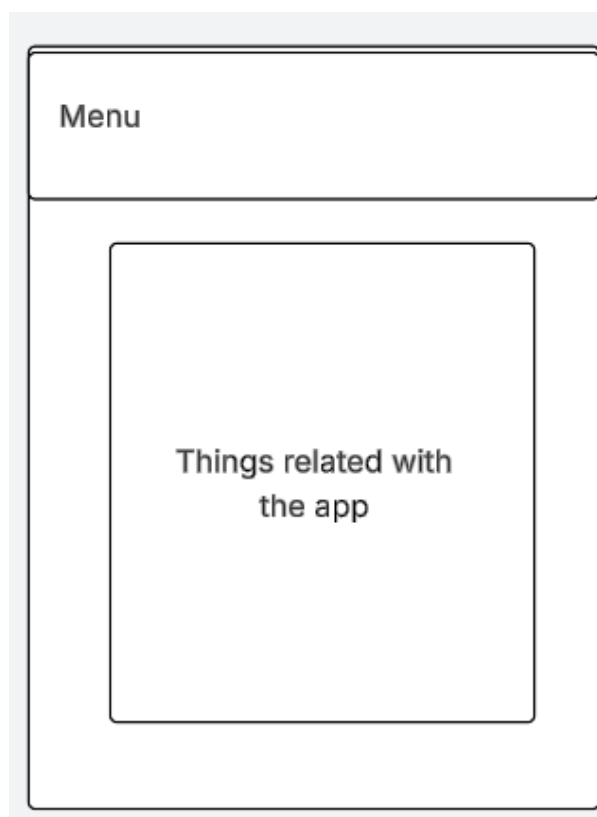| User history	TITLE Training Plan	PRIORITY LOW - MID
	As: Personal Trainner	
	I want to organize my tasks into categories or labels	
	To: be able to organize the training priorities of whom I am responsible	
Acceptance Criteria:	**Given** that I have tasks in my list **When** I create a category or label **Then** I should be able to assign it to a task. **Given** that my tasks have categories or labels **When** I filter my tasks by category or label **Then** I should see only the relevant tasks.	

User history	TITLE Reminders	**PRIORITY** **MID-HIGH**
	As: Event Planner	
	I want to schedule events with a specific date and time	
	To: do not forget the event of the selected day	
Acceptance Criteria:	**Given** I'm in the reminders option **When** I select a date and time, **Then** I can type in the content of the reminder and upload it **Given** an event is scheduled **When** the time of the event is approaching **Then** I should get reminder notifications.	

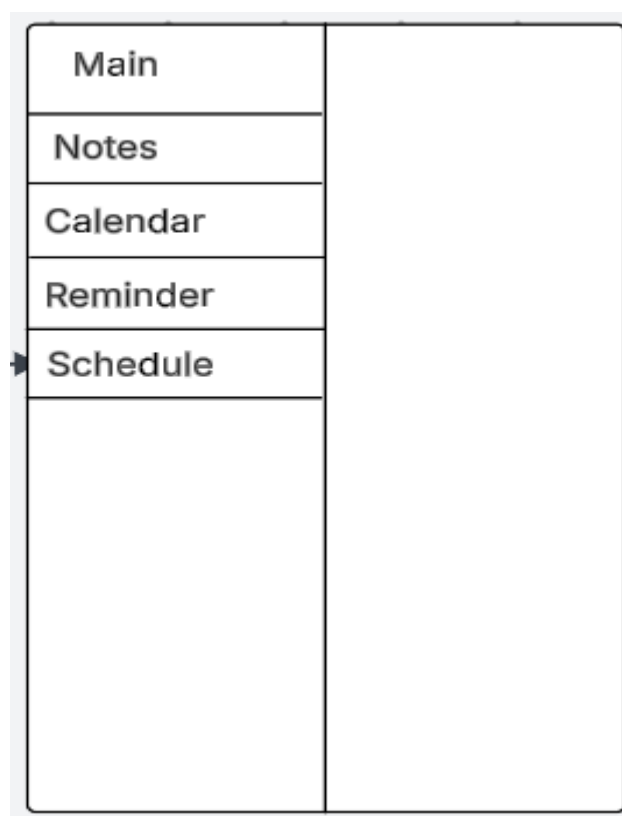| User history	TITLE Search	**PRIORITY** **MID**
	As: User	
	I want to search for a specific note or task using keywords	
	To: find information quickly	
Acceptance Criteria:	**Given** that I have multiple saved notes and tasks **When** I enter a keyword in the search bar **Then** matching results should be displayed.	

User history	TITLE Events	PRIORITY MID-HIGH
	As: User	
	I want to mark special dates or events on the calendar	
	To: don't forget important dates	
Acceptance Criteria:	**Given** that I want to add an event **When** I enter a date and description **Then** the event should be saved and visible in the integrated calendar. **Given** that an event is saved **When** I configure notifications **Then** I should receive reminders for the event.	

User history	TITLE schedule	PRIORITY HIGH
	As: Student	
	I want to create my class schedule	
	To: Remember what days and times I have class	
Acceptance Criteria:	**Given I** am in the schedules section **When** I enter the content, day and time **Then** the information provided is reflected in its corresponding section	

Mockups

Menu

Things related with
the app

At the start of the app you will find the menu option, clicking on the menu displays all the options.

Main

Notes

Calendar

Reminder

Schedule

Notes		
Note 1	Note 2	Note 3
Note 4	Note 5	Note 6
Note 7	Note 8	Note 9
Note 10	Note n	New note

When you click on notes, all the notes you have made will appear, along with an option to create them.

Calendar						
March 2025 <>						
M	T	W	T	F	S	S
30	31	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26

Clicking on the calendar displays a calendar with reminders.

```
Reminder

You have n reminders for: dd-mm-year
Reminder 1: Name - date
Reminder 2: Name - date
Reminder n: Name - date
New reminder
```

When reminders are click would appear al de reminders that the user has and an option to create new reminders

Schedule						
Semester # n						
H	M	T	W	T	F	S
6 AM–8AM	d/dx		d/dx		d/dx	
8AM–10AM	T.I			T.I		
10AM–12M		OOP	T.S	OOP		OOP
12M–2PM	CS1		CS1		CS1	
2PM–4PM				T.S		

When the user clicks on schedule it appears a table with the hour of a subject and if there is a task for a specific hour

Note N
To do List: • Purchase the market • Task about mental ilnesses • Task about encapsulation (OOP) • Workshop #1 calculus

When the user clicks on a exist note, it would appear the information that contains the note

Classes And CRC cards

CLASSES

Application

- *Attributes*: current module, authenticated user
- *Methods*: show_main_menu(), switch_module()

Notes

- *Attributes*: notes list, last update
- *Methods*: create_note(), edit_note(), delete_note(), search_note()

Calendar

- *Attributes*: current year, current month, events
- *Methods*: show_calendar(), change_month(), highlight_events()

Event

- *Attributes*: date, time, description, has reminder
- *Methods*: activate_reminder(), edit_description()

Schedule

- *Attributes*: current week, time blocks
- *Methods*: show_schedule(), add_activity(), reorganize_schedule()

Activity

- *Attributes*: name, day of week, start time, end time
- *Methods*: update_schedule(), change_name()

Tasks

- *Attributes*: tasks list, completed tasks
- *Methods*: add task (), mark completed(), filter by priority ()

Reminder

- *Attributes*: date time, message, active status
- *Methods*: activate (), deactivate (), set_alarm()

Storage

- *Attributes*: files path, loaded data
- *Methods*: save_data(), load_data(), create_backup()

CRC CARDS

CLASS (Application)	
RESPÓNSABILITY	COLABORATOR
• Manage main menu and module navigation	• Notes • Calendar • Schedule • reminders

CLASS (Notes)	
RESPÓNSABILITY	COLABORATOR
• Handle note creation, editing and deletion	• Storage • Application

CLASS (Calendar)	
RESPÓNSABILITY	COLABORATOR
• -Display dates and manage events	• Event • Storage • Application

CLASS (Schedule)	
RESPÓNSABILITY	COLABORATOR
• Manage weekly activities	• Activity • Storage • Application

CLASS (Event)	
RESPÓNSABILITY	COLABORATOR
• Store event data and reminders	• Calendar • Reminder • Storage

CLASS (Activity)	
RESPÓNSABILITY	COLABORATOR
• Define time blocks (name, day, schedule)	• Schedule • storage

CLASS (Reminder)	
RESPÓNSABILITY	COLABORATOR
Activate/deactivate the reminder alarms	• Event • Storage • Application

CLASS (Storage)	
RESPÓNSABILITY	COLABORATOR
Store the data entered in the application so that it remains in its respective place when the app is closed.	• Event • Schedule • Calendar • Note • Application