

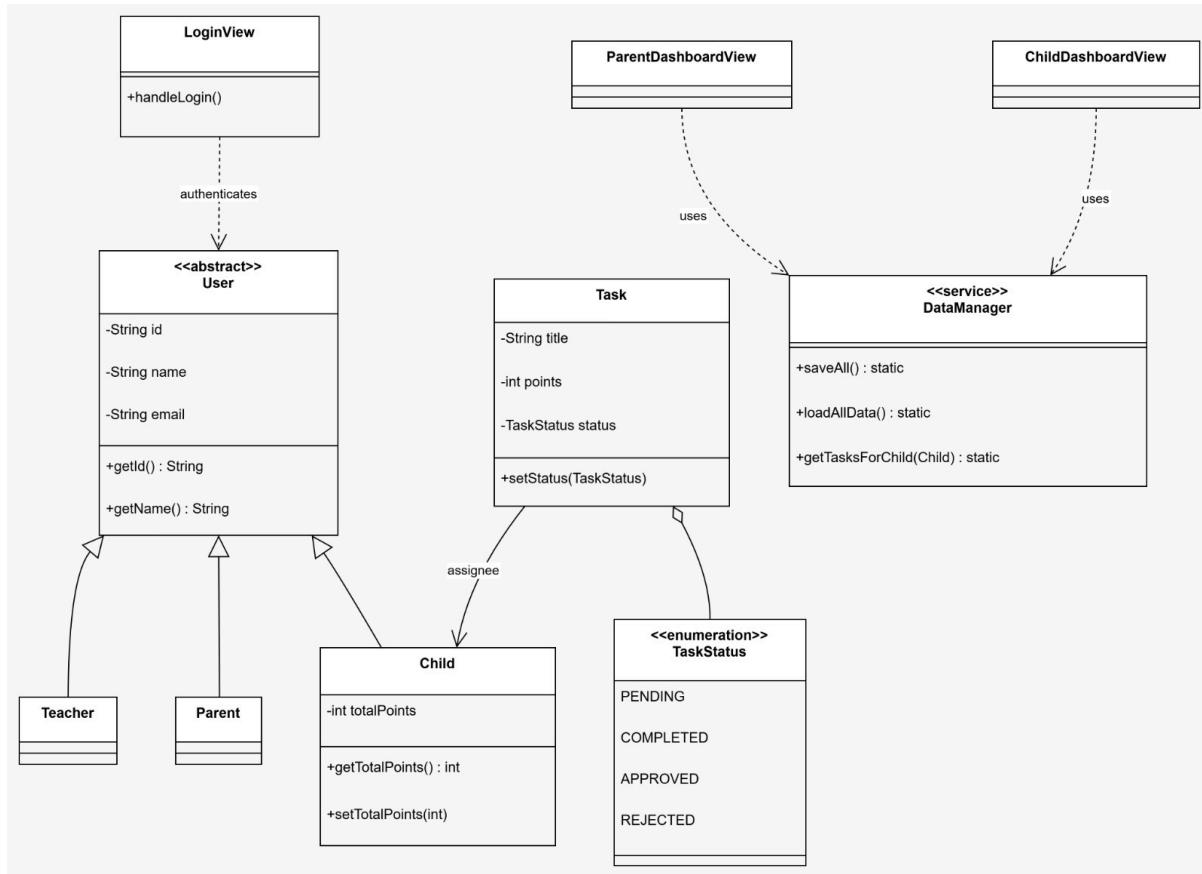
KIDTASK FINAL PROJECT REPORT

1. Project Information & Access

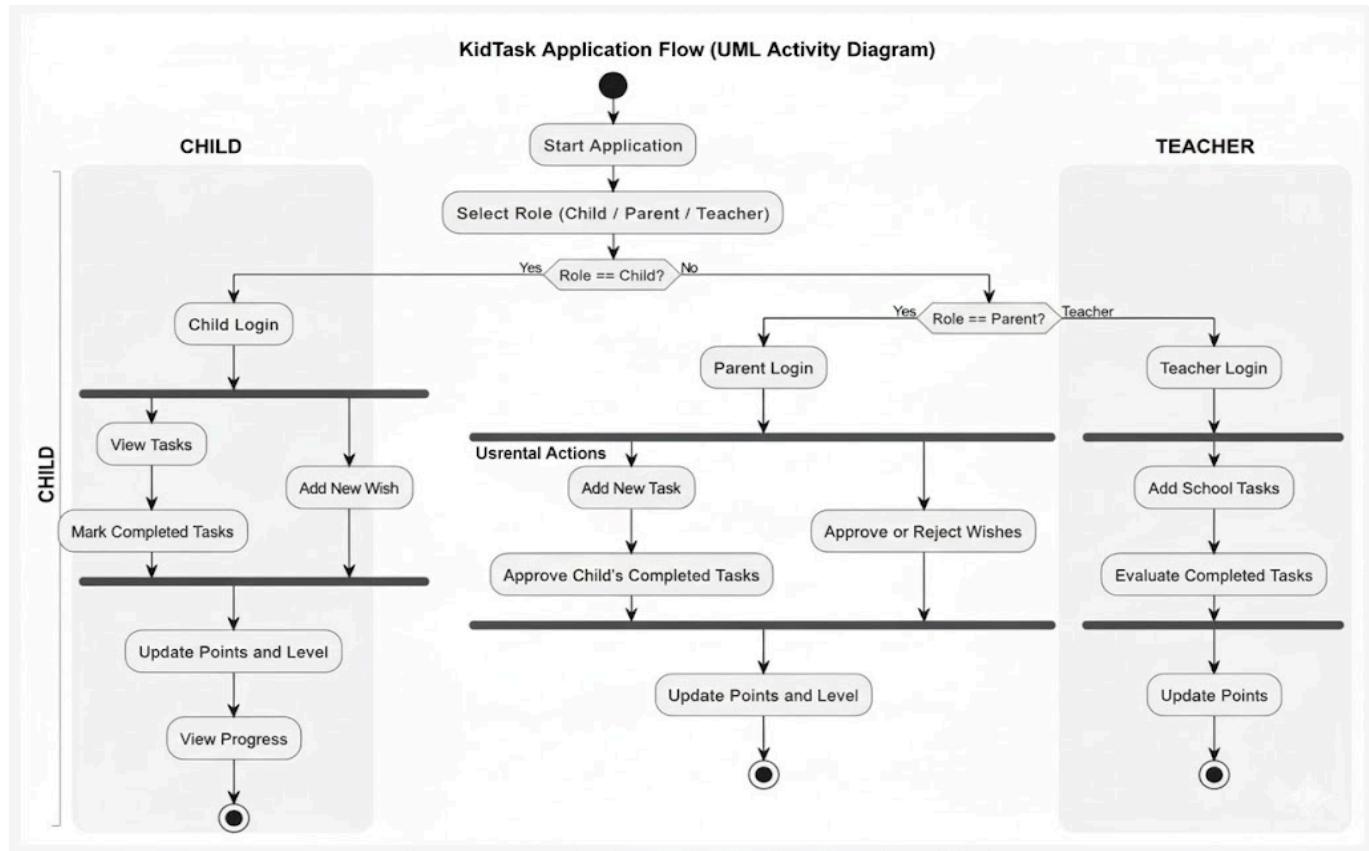
- **Project Name:** KidTask
- **Developer:** Ümit Kağan Aslan – Role: Student A
- **Github Repository:** <https://github.com/ukaganaslan/SENG383-project>
- **Repository Structure:**
 - /Design: Design part of project
 - /src: Java source codes (Clean Code & Error Handling implemented).
 - /docs: Updated diagrams and this report.
 - /video: Final presentation video.
 - README.md: Setup and execution instructions.

2. Final Design Artifacts

Class Diagram



Activity Diagram



Screenshots

Design

KidTask

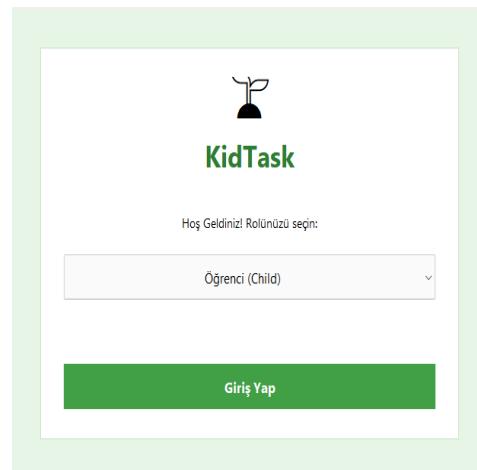
Login and select your role 🎓

Username
Enter your name

Role
Child

Login **Exit**

App



Welcome, s 🙌

[Logout](#)

Points: 0 Level: 1

[Go to Simple Tasks View](#)

Tasks Requests Wishes Progress

Today's Summary

Loading tasks...

Puan: 50 Ort. Başar: -/5.0 Seviye: 1 Çık

Hoş Geldin, Ali

Görevlerini tamamla, puanları topla! ⚡

Görevlerim D Dileklerim D İlerlemem D

Filtreler: Tümü Bugün Bu Hafta

Görev	Açıktırma	Puan	Son Tarih	Durum	İstem
Ödəm Topla	Oyuncakları sepete at	20	2023-12-30	COMPLETED	COMPLETED
Ödev Yaptı	Matematik syl 40	30	2023-12-31	APPROVED	APPROVED
Çözdükleri sıra	bahçedeki çözdükleri sıra	10	2023-12-31	PENDING	Tanımla ✓

Welcome, s 🙌

[Logout](#)

Points: 0 Level: 1

[Go to Simple Tasks View](#)

Tasks Requests Wishes Progress

Today's Summary

Loading tasks...

Add New Wish 🎉

Enter your wish... Level 1 (50 points) [+ Add Wish](#)

Puan: 50 Ort. Başar: -/5.0 Seviye: 1 Çık

Hoş Geldin, Ali

Görevlerini tamamla, puanları topla! ⚡

Görevlerim D Dileklerim D İlerlemem D

Dilek Ekle (Seviye Kontrolü Var)

Dilek: Koguk (50 Puan) [+](#)

Welcome, s 🙌

[Logout](#)

Points: 0 Level: 1

[Go to Simple Tasks View](#)

Tasks Requests Wishes Progress

Today's Summary

0 pending tasks • 0 awaiting approval • 1 wishes • 0 total points

Your Progress

Level 1 0 points

0%

50 points to next level

Puan: 50 Ort. Başar: -/5.0 Seviye: 1 Çık

Hoş Geldin, Ali

Görevlerini tamamla, puanları topla! ⚡

Görevlerim D Dileklerim D İlerlemem D

Seviye Seviyesi: 0/100

Welcome, w 🙌 [Logout](#)

Points: 0 Level: 1

[Go to Simple Tasks View](#)

[Tasks](#) [Requests](#) [Wishes](#) [Progress](#)

Today's Summary
0 pending tasks • 0 awaiting approval • 1 wishes • 0 total points

Add New Task
Enter task name... [+ Add New Task](#)

Veli Kontrol Merkezi

[Yeni Görev Ekle](#) [Çıkış Yap](#)

Tamamlanan Görev Onayları		Dilek İstekleri		
Görev	Öğrenci	Puan	Son Tarih	İşlemler
Odan Topla	Ali	20	2023-12-30	Onayla Reddet

Welcome, w 🙌 [Logout](#)

Points: 0 Level: 1

[Go to Simple Tasks View](#)

[Tasks](#) [Requests](#) [Wishes](#) [Progress](#)

Today's Summary
0 pending tasks • 0 awaiting approval • 1 wishes • 0 total points

Add New Wish [!](#)
Enter your wish... [Level 1 \(50 points\)](#) [+ Add Wish](#)

dasdasd
[Level 1](#) [Pending](#) [★ 50 points required](#) [✓ Approve](#) [✗ Reject](#)

Veli Kontrol Merkezi

[Yeni Görev Ekle](#) [Çıkış Yap](#)

Tamamlanan Görev Onayları		Dilek İstekleri		
Dilek	Öğrenci	Maliyet	Durum	İşlemler
Bisiklet	Ali	500	PENDING	Onayla Reddet

[Go to Simple Tasks View](#)

[Tasks](#) [Requests](#) [Wishes](#) [Progress](#)

Today's Summary
0 pending tasks • 0 awaiting approval • 0 wishes • 0 total points

Add New Task
Enter task name... [+ Add New Task](#)

Okul Görevleri & Takip

[Yeni Ödev Ekle](#) [Çıkış](#)

Görev	Öğrenci	Son Tarih	Durum	Puanlama	İşlem
Odan Topla	Ali	2023-12-30	COMPLETED	-	Puanla & Onayla
Ödev Yap	Ali	2023-12-31	APPROVED	-	Puanla & Onayla
çögeleri sula	Ali	2023-12-31	PENDING	-	Puanla & Onayla

3. AI Usage & Prompts Analysis

Process	Project	AI Tool	Prompt (Command)	AI output analysis	Human Revision (Manual Fix)
Design (Task1)	Beeplan	Figma	I directly uploaded the pdf file and created a syllabus application	useful interface design	-
Design (Task 2)	KidTask	Canva	"Generate class and activity diagram with plant uml code"	could not provide a visual diagram	plant uml code was converted to visual format in deawio
Coding (Task 1)	KidTask	Cursor	"Create a Java Swing GUI for a Login screen with a role selection dropdown."	The color balances of some keys were very different and there was a wish confirmation in the teacher section.	I corrected them by repeatedly giving prompts and telling them the things that needed to be removed one by one, and the final application became like this.
Coding (Task 2)	BeePlan	CoPilot	"Write an algorithm to detect overlapping meetings in a calendar."	There was an error with the syllabus timing	Corrected the logic to handle end-times that equal start-times (boundary cases).

Reporting	KidTask	Gemini	"Draft a technical summary of the DataManager's file I/O logic."	produced a useful report, but there were technical and visual deficiencies	visual and technical parts added
------------------	---------	--------	--	--	----------------------------------

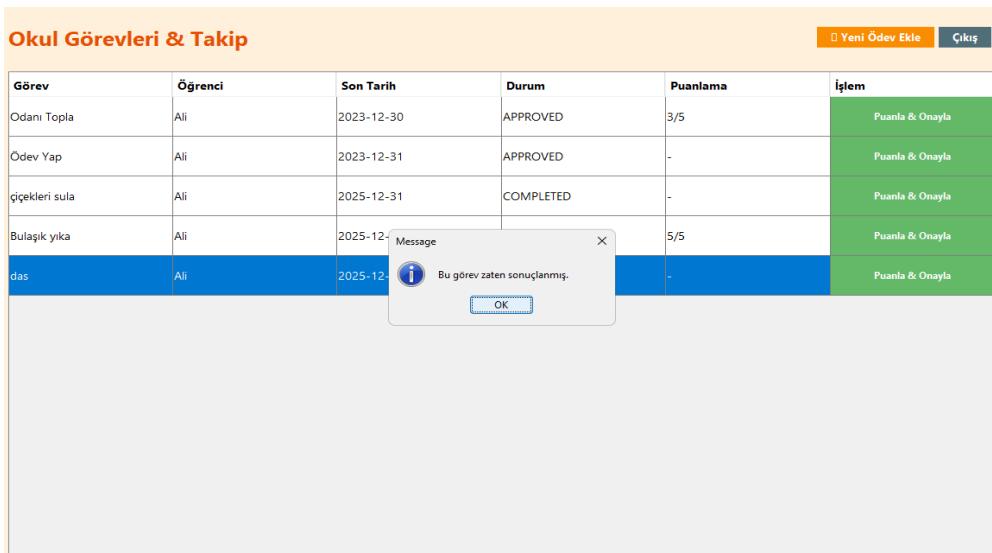
4. V&V Testing Report (Verification & Validation)

Test Case Table

Test Case	Expected Result	Actual Result	Status
User Authentication	User should be directed to the correct dashboard based on role.	Successfully redirected to Role-specific View.	Passed
Task Completion	Status should change to COMPLETED and disappear from Child's "To-Do".	Status updated in Tasks.txt and UI refreshed.	Passed
Point Accumulation	After Parent approval, Child's totalPoints should increase.	Points increased and were saved permanently to the file.	Passed

Debugging with AI Tutor

- **Issue: Logical Error in Task Rating Process** While testing the Teacher Dashboard, I noticed that the system allowed teachers to trigger the rating dialog for tasks that were already finalized (Status: APPROVED or REJECTED). This caused redundant data updates and logical inconsistency in the child's total points.
- **AI Suggestion:** I consulted the AI Tutor to implement a "State Validation" check. The AI suggested adding a conditional statement at the beginning of the `rateTask` method to verify if the task's current status is strictly PENDING before proceeding with the rating and approval logic.
- **Fix:** I implemented a validation block that checks the task status. If a teacher attempts to rate a finalized task, the system now triggers a warning message: "*Bu görev zaten sonuçlanmış*" (This task is already finalized), and the process is aborted.



- **Issue: Assignment of Tasks with Past Dates** During the testing of the **Parent/Teacher Dashboard**, I discovered a critical logical flaw: the system allowed users to assign tasks with dates that had already passed. This created inconsistent data and allowed for "retroactive" point manipulation, which violates the integrity of the task tracking system.
- **AI Suggestion:** I used **DeepSeek** to find a way to validate the date input against the current system date. The AI suggested using the `java.time.LocalDate` library to compare the user's input with `LocalDate.now()`. If the input date is before the current date, the system should prevent the task creation and alert the user.
- **Fix:** I integrated a date validation check in the `showAddTaskDialog` method within both **TeacherDashboardView** and **ParentDashboardView**. Now, if a user enters a past date, a JOptionPane error message is displayed, and the task is not saved to the `Tasks.txt` file.

Odev Yap	Ali	2023-12-31	APPROVED	-	Puanla & Onayla
----------	-----	------------	----------	---	-----------------

Peer Review (Student B)

- **Feedback:** "The Teacher dashboard doesn't show the rating given by the parent."
- **Resolution:** Modified TeacherDashboardView to include a "Rating" column in the JTable, allowing teachers to see parental feedback.