

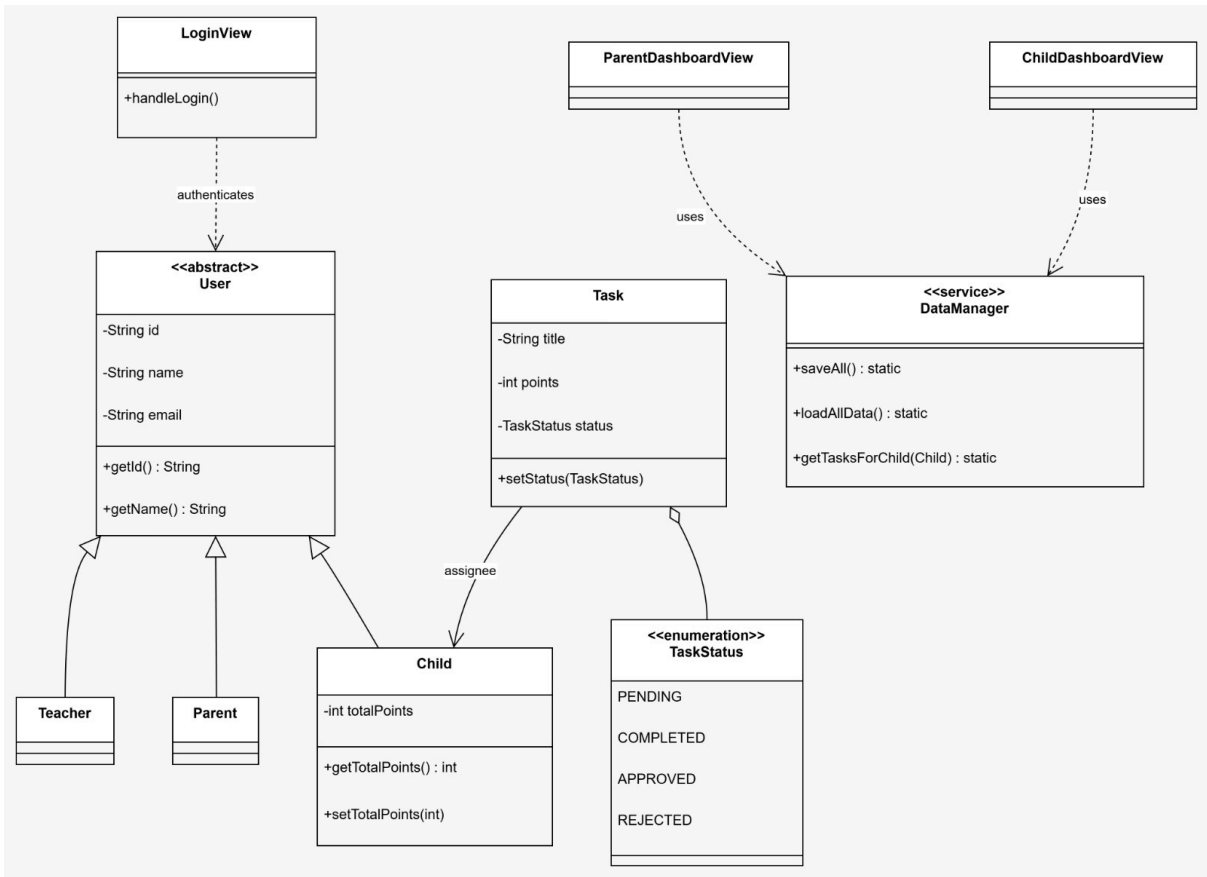
KIDTASK FINAL PROJECT REPORT

1. Project Information & Access

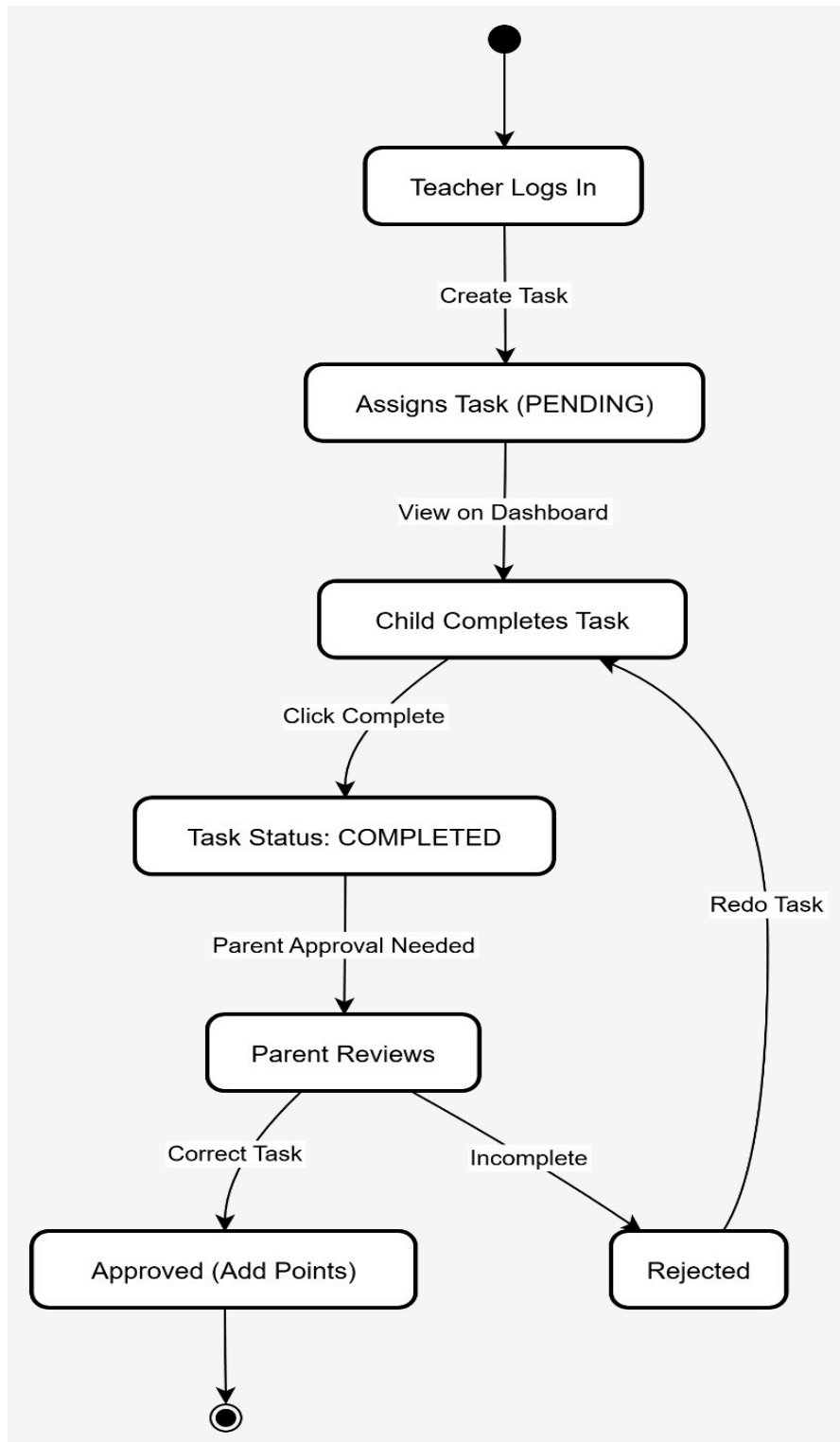
- **Project Name:** KidTask
- **Developer:** Ümit Kağan Aslan – Role: Student A
- **GitHub Repository:** <https://github.com/ukaganaslan/SENG383-project>
- **Repository Structure:**
 - /src: Java source codes (Clean Code & Error Handling implemented).
 - /docs: Updated diagrams and this report.
 - /video: 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

Role

Child

Login Exit

App

KidTask

Hoş Geldiniz! Rolünüzü seçin:

Öğrenci (Child)

Giriş Yap

Welcome, s Logout Points: 0 Level: 1

Go to Simple Tasks View

Tasks Requests Wishes Progress

Today's Summary

Loading tasks...

Hoş Geldin, Ali

Puan: 50 Ort. Başarı: 5.0 Seviye: 1 Çık

Görevlerini tamamla, puanları toplam!

Görevlerin Dileklerin İletilemem

Filtrele: Tümü Bugün Bu Hafta

Görev	Açıklama	Puan	Son Tarih	Durum	İşlem
Odanı Topla	Oyuncakları sepete at	20	2023-12-30	COMPLETED	COMPLETED
Ödev Yap	Matematik öf 40	30	2023-12-31	APPROVED	APPROVED
Çöğkeni sula	bahçedeki çöğkeni sula	10	2025-12-31	PENDING	Tamamla ✓

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

Hoş Geldin, Ali


Puan: 50 Ort. Başarı: 5.0 Seviye: 1 Çık

Görevlerini tamamla, puanları toplam!

Görevlerin Dileklerin İletilemem

Dilek Ekle (Seviye Kontrolü Var)

Dilek: Kışık 10 Puan

Welcome, s  [Logout](#) Points: 0 Level: 1

[Go to Simple Tasks View](#)

[Tasks](#) [Requests](#) [Wishes !\[\]\(bcffafb3f4cecf90b3dfb2b1964c87a7_img.jpg\)](#) [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

Hoş Geldin, Ali Puan: 50 Ort. Başarı: -15.0 Seviye: 1 [Çık](#)

Görevlerini tamamla, puanları toplat [Görevlerin](#) [Dileklerin](#) [Belemlerin](#)

Seviye 1'den 50/100

Welcome, w  [Logout](#) Points: 0 Level: 1

[Go to Simple Tasks View](#)

[Tasks](#) [Requests](#) [Wishes !\[\]\(9aae4ef11f04080694e1bcd3250dc654_img.jpg\)](#) [Progress](#)

Today's Summary

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


Add New Task

[Add New Task](#)

Veli Kontrol Merkezi [Yeni Görev Ekle](#) [Çıkış Yap](#)

[Tamamlanan Görev Onayları](#) [Dilek İstekleri](#)

Görev	Öğrenci	Puan	Son Tarih	İşlemler
Ödemi Topla	Ali	20	2023-12-30	Onayla Reddet

Welcome, w  [Logout](#) Points: 0 Level: 1

[Go to Simple Tasks View](#)

[Tasks](#) [Requests](#) [Wishes !\[\]\(2f6cbf793e6a1961015dd0f820391a64_img.jpg\)](#) [Progress](#)

Today's Summary

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

Add New 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
Bilet	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

Add New Task



Okul Görevleri & Takip					
					Yeni Görev Ekle Çıkış
Görev	Öğrenci	Son Tarih	Durum	Puanlama	İşlem
Ödev Topla	Ali	2023-12-30	COMPLETED	-	Puanla & Onayla
Ödev Yap	Ali	2023-12-31	APPROVED	-	Puanla & Onayla
Görevleri Sula	Ali	2025-12-31	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	could not provide a visual diagram	plant uml code was converted to visual format in deawio

			with plant uml code"		
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.

Okul Görevleri & Takip					
				Yeni Ödev Ekle	Çıkış
Görev	Öğrenci	Son Tarih	Durum	Puanlama	İşlem
Odanı Topla	Ali	2023-12-30	APPROVED	3/5	Puanla & Onayla
Ödev Yap	Ali	2023-12-31	APPROVED	-	Puanla & Onayla
Çiçekleri sula	Ali	2025-12-31	COMPLETED	-	Puanla & Onayla
Bulaşık yıka	Ali	2025-12-31	PENDING	5/5	Puanla & Onayla
das	Ali	2025-12-31	APPROVED	-	Puanla & Onayla

- **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.

Ödev Yap	Ali	2023-12-31	APPROVED	-	Puanla & Onayla
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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.