

# WebApp Details

App Name - RJMS

Tech stack:

- Frontend - [Vue.js](#)
- Backend - Flask
- Database - PostgreSQL

Color Palette:

- bg - FFF7ED
- containers - FBEAD3
- pop-up button(login and profile) n setting highlight - F9DDBB
- course filter - C4B49E

Authentication:

- Only GoogleAuth feature for logging in the user.

Note:

- The app must be optimised for desktop users
- Ensure the code is clean and easy to maintain.

## Feature Requirements

Feature - Home Page Experience:

- Create the home page Layout as per the figma prototype.
- **Content** for section:
  - Product
    - The Reflection Journal Management System (RJMS) is a digital platform designed to streamline the creation, management, and evaluation of reflection journals in educational contexts. It supports both teachers and students in fostering deeper learning, self-awareness, and critical thinking through structured reflection processes. RJMS integrates a flexible framework that allows teachers to set reflection models (such as Bloom's Taxonomy or the 5Ws & 1H), while students can record their reflections in guided spaces aligned with these models. <br> <br>
    - The system incorporates an AI-driven evaluation engine that provides scaffolded, question-based feedback, which teachers can refine and approve before sharing with students. By combining automation with a teacher-in-the-loop workflow, RJMS ensures meaningful feedback,

encourages active student engagement, and enhances the overall reflective learning experience in both small and large classroom settings.

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- Features

- The Reflection Journal Management System (RJMS) is designed with two primary user roles in mind — Students and Teachers. Each role has a tailored set of features that support reflective learning and feedback. <br><br>
- For Teachers:
- RJMS equips you with powerful tools to manage reflections, guide learning, and ensure meaningful engagement:
  - <ul>
  - <li>Secure Access: Log in easily with your Gmail account and access your teacher dashboard.</li>
  - <li>Course Setup: Upload your student roster and configure the reflection framework that best suits your course (e.g., Bloom’s six levels or the 5Ws & 1H approach).</li>
  - <li>AI-Powered Evaluation: Get automated analysis of student reflections across three stages:</li>
  - <ul>
  - </ul>
  - <li>Scaffolded Feedback – Students receive layered, question-based feedback that guides learning rather than providing direct answers.</li>
  - <li>Teacher-in-the-Loop – Teachers can review, edit, and approve AI-generated feedback before it is shared with students.</li>
  - <li>Secure Login – Gmail OAuth ensures safe and reliable access for all users.</li>
  - </ul>
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- About Us.

- The Reflection Journal Management System (RJMS) is a student-developed project born out of a vision to make reflective learning more structured, scalable, and impactful in higher education. This project was undertaken as part of the course [Reflection Journal Management System] at IIT Bombay. <br> <br>
- RJMS has been designed and developed by a dedicated group of students: Nisha, Hamid, Tanvi, Kushal, Vinay. Guided by the vision of Professor Shashi Kant Shankar, Ahmedabad University, the project aims to address the challenges faced by both students and teachers in managing reflection journals. While students often struggle with structuring their reflections meaningfully, teachers need efficient tools to evaluate and provide constructive feedback, especially in courses with large enrollments. RJMS bridges this gap by combining structured journal frameworks with AI-assisted evaluation and teacher-in-the-loop feedback. <br> <br>
- Our mission is to create a platform that not only simplifies journal management but also fosters deeper learning, self-awareness, and critical

thinking. We believe that reflective practice is a cornerstone of effective education, and RJMS is our contribution towards making this practice more engaging, interactive, and meaningful for both learners and educators.

- Build the “RJMS” Title on the top bar at the left corner that navigate to the Home page on-click.
- Build the Product, Features, About Us, menu buttons on the top bar that navigate to the respective content on-click.
- The content of each section is displayed below the top bar in sequence in the following order: Heading, content.

#### Feature - Login Experience:

Build the Login Menu button with dropdown options for going into different personas:

- Teacher
- Student
- Create the Login Page using Google Auth separately for Student and Teacher Persona.

#### Feature - Student (Persona) Home Page Experience:

- Create the home page Layout for the Student User as per the figma prototype (sample image attached).
- Build the “RJMS” Title on the top bar at the left corner that navigate to the Home page on-click.
- Build the “Dashboard”, “User icon” menu buttons on the top bar at the right corner that navigate to the respective content on-click.
- “User icon” menu button is of the dropdown type which has:
  - Profile
  - Sign Out
- On-click of the “Profile” option, navigate to the Student Profile page.
- On-click of the “Sign Out” option, log out the user of the session, and navigate back to the Student User Login Page.
- Home Page layout displays the list of courses that the student is part-of, for which he/she needs to write reflection journals (sample image attached).
- Course list to be displayed as boxes in a set of 3 box per line, with the course name mentioned on each box and the box is clickable that navigates the user to the page which is about the reflection journals related to the course.
- There needs to be a filter bar/option at the right side of the screen, to filter the list of courses displayed on the Student Home page based on:
  - Course Name
  - Course Status
- Search bar is to be displayed on the top of the list of courses displayed (sample image attached), which allows to search courses based on keyword entered.

#### Feature - Student (Persona) Course Experience:

- Create the **course page Layout** for the Student User as per the figma prototype (sample image attached).
- This will be a common layout structure to be developed, which will be used across all courses that the student is part-of.
- The top layout of the page is same as the Student Home Page.
- The Course Page layout displays the list of reflection journals that are part of the course which the student needs to write according to the deadline due dates(sample image attached).
- Reflection journals list to be displayed as boxes in a set of 3 box per line, with the reflection journal number/name mentioned on each box.
- The box is clickable that navigates the user to the page where the user needs to input the content of that particular reflection journal.
- Create the **Reflection Journal Content Input Page**, where the student user is displayed the actual structure of the reflection journal in which they are supposed to input the content.
  - The top layout of the page is same as the Student Home Page.
  - Display the heading aligned to center of the page below the top bar as “Reflection Details”.
  - Display the actual structure of the reflection journal based on the configuration by the instructor, at the time of configuring this particular course in a single box/container.
  - Add “Submit” button at the bottom of the reflection details box.
  - On-click of “Submit” button, save the content that is input by the user for that reflection journal.
  - Whenever the feedback is generated for that particular reflection journal, it is to be displayed below the “Submit” button, under the heading “Feedback” (sample image attached). [Optional]

#### Feature - Student (Persona) Dashboard Experience:

- Create the “Dashboard” Page.
- Navigate to Dashboard page when the user clicks on “Dashboard” option from the top bar on the Student home page.
- The top layout of the page is same as the Student Home Page.
- Display the heading aligned to left of the page below the top bar as “Dashboard”.
- Below the heading section, filter to be displayed as a dropdown with 2 options:
  - Sort by dates - sort the list by the nearest deadline due date of the reflection journal.
  - Sort by courses - sort the list by the course name/id and then the reflection journal number.
- This filter is used to sort the list of reflection journals across courses that are due/overdue which are displayed to the user.
- Below the filter option, the list of reflection journals across courses that are due/overdue to be displayed to the user.
  - Complete content is displayed inside a box/container (similar to moodle experience).
    - Each reflection journal from the list is displayed as a sub-box/container.
    - For each reflection journal, the details to be displayed in the sub-box/container are:
      - Reflection Journal Title

- Course Name and ID
  - Deadline Due Date
- Make each reflection journal sub-box/container to be clickable which redirects the user to that particular reflection journal page.

#### Feature - Teacher (Persona) Home Page Experience:

- Create the **home page Layout for the Teacher** as per the figma prototype (sample image attached).
- Build the “RJMS” Title on the top bar at the left corner that navigates to the Home page on-click.
- “User icon” menu button is of the dropdown type, which has:
  - Profile
  - Sign Out
- On-click of the “Profile” option, navigate to the Student Profile page.
- On-click of the “Sign Out” option, log out the user of the session, and navigate back to the Student User Login Page.
- The Home Page layout displays the 'Add New Course' button and “List of courses”.
- The Add New Course button is clickable, which navigates the user to the “**Display course configure page**”
- Course list to be displayed as boxes in a set of 3 boxes per line, with the course name mentioned on each box, and the box is clickable, which navigates the user to the “**Course overview page**”, which is about the existing courses.
- Create a Search bar that is to be displayed on the top of the list of courses displayed (sample image attached), which allows to search courses based on keyword entered.
- Create a filter bar/option at the right side of the screen, to filter the list of courses displayed on the Teacher Home page based on:
  - Course Name - Filters out the courses based on the course names that have been selected.
  - Course Status - Filters out the courses based on the course status that has been selected.

#### Feature - Teacher (Persona) Course Experience:

##### Course Overview Experience:

- Navigate to the Course Overview page when the user clicks on a course box from the Teacher Home Page.
- Navigate to the Course Overview page when the user clicks on “Overview” button from the left panel throughout the Teacher Course Experience.
- Create the “**Course Overview**” Page.
- The top layout of the page is the same as the Teacher Home Page.
- On the left side of the page, a panel is displayed with **four buttons: Overview, Configure, Manage Students, and Reflections.**
- Each button is clickable and navigates to its respective page.
- In the centre of the page, display the following summary information as a tabular format:

- Reflection Name - Reflection Name which is part of this course.
- Reflections Received - Total number of students who have submitted reflections for that particular reflection.
- Total Enrolled Students - Total number of students who are part of this course.

#### Course Configuration Experience:

- Navigate to the Course Configuration page when the user clicks on “Configuration” button from the left panel throughout the Teacher Course Experience.
- Create the Configuration Page
- The top layout of the page is the same as the Teacher Home Page.
- Display the heading aligned to the centre of the page below the top bar as “Configuration”.
- In the centre of the page, display a configuration form for the selected course with the following options:
  - Framework - dropdown format(Options - Bloom’s Taxonomy, 5 WHY’s, 1-H, Other).
  - Course Start Date - Calendar format
  - Course End Date - Calendar format
  - Each Reflection Due Date - dropdown format(Options - 1 day, 2 day, 3 day, 5 day) post reflection start date
  - Recurrence - dropdown format(Options - 1 day, 2 day, 3 day, 5 day) per week
  - Select Days - checkbox format (Options - Mon, Tue, Wed, Thurs, Fri, Sat, Sun)
  - Provide an Add Items button to add an pre-structured item(text box and Text input area) to the page for manual configuration before finalizing the reflection structure.
  - At the bottom of the page, display a **Submit** button.
  - On clicking **Submit**, the configuration details should be saved for the selected course.
  - After saving, display a confirmation message: *“Configuration saved successfully.”*
  - If any mandatory field is left empty, display a validation message: *“Please fill in all required fields.”*

#### Course Manage Students Layout Experience:

- Navigate to the Course Manage Students page when the user clicks on “Manage Students” button from the left panel throughout the Teacher Course Experience.
- Create the Manage Students Layout Page
- The top layout of the page is the same as the Teacher Home Page.
- In the center of the page, display a list of students enrolled in the selected course with each student data displayed as a student box/card (sample image attached):
  - For each student, display the following details inside a student card/box:
    - Student Profile Image (placeholder if not available).
    - Student Name.
    - Student Email

- Student ID.
  - Checkbox - To select a student
- Provide an Add Student button - To manually add a student for the particular course.
- Provide a Delete Student button - To manually delete the selected students for the particular course.
- Add a icon(Excel/file) to view/download the sample structure/format of the file to be uploaded in the Upload List button.
  - Position this icon before the “Add a student” button.
- Provide an Upload List button - To upload the list of students(in pre-defined structure and file format) who are to be part of the course.

#### Course Reflections Experience:

- Navigate to the Course Reflections page when the user clicks on “Reflections” button from the left panel throughout the Teacher Course Experience.
- Create the Reflections Page.
- The top layout of the page is the same as the Teacher Home Page.
- Display the heading aligned to the center of the page below the top bar as “**Reflections**”.
- In the center of the page, display a **grid of reflection cards** arranged as **three cards per row**.
- Each reflection card should include:
  - Reflection Name
  - Reflection Start Date and Due/End Date
  - Reflection Description
- Provide pagination controls at the bottom of the page to navigate across multiple reflections.
- Each page of the pagination has 10 rows, then it should paginate to the next page.
- Each reflection card is **clickable**. On click, it should navigate to the **Reflection Details Page** for that reflection.

#### Particular Reflection Details Experience:

- Navigate to the Particular Reflection Details page when the user clicks on a particular reflection card in the “Reflections” Page.
- Create “**Particular Reflection Details**” Page
- The top layout of the page is the same as the **Teacher Home Page**.
- Below the heading, display a **search bar** on the top-right of the table to allow the teacher to search for a student by name or ID.
- Provide a **Select All** button next to the search bar that allows the teacher to quickly select all student records in the list.
- Display a **table** in the center of the page with the following columns:
  - **Student:** Display the name of each student enrolled in the course.

- **Submission:** Indicate whether the student has submitted the reflection (Yes/No or submission date).
  - **AI Feedback:** Display the AI-generated feedback for the student's submission.
  - **Score:** A field/column where the score can be entered or displayed for each student's reflection.
  - **Display Feedback:** A checkbox column indicating whether teacher has reviewed the student's reflection AI feedback.
- Each row in the table represents one student's record for the selected reflection.
  - If the teacher checks the **Display Feedback** checkbox, then teacher has reviewed the student's reflection AI feedback and approved the feedback is to be displayed to the student.
  - Provide **pagination controls** at the bottom of the table to navigate through multiple pages of student records (e.g., Previous, Next, and page numbers).
  - Ensure only a fixed number of rows (10 students) are shown per page for readability.
  - At the top-left of the table, provide a **Student List button** that allows the teacher to navigate back to the full student list for the course.
  - If a student has not submitted a reflection, the **Submission** and **AI Feedback** columns should be empty or display "Not Submitted."
  - On page load, the table should default to show the first page of student records.
  - After making changes (e.g., marking complete, entering score), provide a **Save/Update action** (could be auto-save or explicit button depending on design).