Financial Literacy & Inclusion – Student Finance Management

Team Name: Clueminati
Team Members: Renuka Wadetwar
Minakshi Rokade
Poornima Mendhekar
Abhishek Sarodaya
Ayushi Nagpure
Sucheti Kanere
College: Symbiosis Institute of Technology, Nagpur

Problem Statement

Students entering higher education should be equipped with essential financial skills and tools to manage their money wisely. They should have access to a digital platform that enables them to create budgets, track expenses, understand concepts such as credit and savings, and receive personalized financial guidance. Such support is critical for promoting financial independence and long-term stability.

In fact, most students are not financially literate. According to an OECD report analysis, it was found that approximately 18% of students fell below the baseline financial literacy. These students have trouble with budgeting, pay bills late, spend more money than they have, and lack knowledge of key money topics like credit, loans, and investments. While demand is growing, there is no affordable, campus-wide online site providing budgeting tools, financial literacy, or one-on-one support to eliminate these issues.

To bridge this gap, there needs to be a combined online platform offering the student budgeting tools, financial literacy tools, and targeted financial advice. The platform would assist students in developing needed financial skills, lower their level of financial stress, and make better money choices, leading to better grades and overall financial health in the long term.

Proposed Solution

We propose one integrated and student-focused digital platform that not only allows students to take care of their finances but also solidifies financial literacy. It is a one-stop center that offers a single interface through which the student can budget, keep track of expenditure, learn financial matters, get proactive advice, and communicate with financial planners. It attempts to overcome the usual disconnect in learning about finances by mixing automation, ease of access, and expert intervention all for the student population.

For making this vision a reality, the platform provides the following prominent functionalities collectively enabling the students to take control of their finances in an organized, caring, and fun way.

1. **Personal Budgets & Expense Tracking:**
   A service portal offers a simple-to-use, component-based dashboard from which the students can construct budgets, track and classify spending, and see their expenses on real-time charts. The simple design brings convenient access to all self-service financial tools.

2. **Automated Financial Reminders:**
   The platform issues timely reminders in the form of email, SMS, or in-app notifications on impending bill payments, budget limit violations, and low account balance. The platform issues timely reminders in the form of email, SMS, or in-app notifications on impending bill payments, budget limit violations, and low account balance.

3. **Financial Literacy Knowledge Hub:**
   The site offers a Knowledge Base of articles and tutorials on matters of budgeting, loans, credit score, etc. ServiceNow KB supports rich text and multi-media content, and therefore students can view or read descriptions through the portal. This library offers self-learning of financial principles.

4. **Interactive Quizzes & Progress Assessments:**
   To encourage learning money, the website features instant-feedback interactive quizzes. The tests assist in measuring understanding of core financial concepts, and graphical dashboards display scores, right answers, and trends over time.

5. **Advisor Booking & Virtual Support:**
   Individual students are able to schedule one-on-one with financial planners or counselors through an integrated scheduling system. For those requiring 24/7 access, a virtual chatbot assistant is available to answer basic finance questions, screen out minor questions, and refer complex ones to human advisors where relevant for timely and individualized guidance.

6. **Goal-Based Savings Tracker:**
   They can enter customized saving targets, like Save Rs. 5,000 in 3 months for a laptop. The system suggests a realistic plan to save money from their monthly income and expenses. It graphically displays total saved, remaining amount, and approximate time to goal that allows students to track and maintain their progress systematically.

7. **Bill Upload & OCR-Based Entry:**
   Students can upload receipts, scanned bills, or transaction screenshots straight onto the platform. The platform, through Optical Character Recognition (OCR), reads the important information such as amount, date, and category automatically and saves it in the student's expense accounts. This intelligent automation eliminates tedious data entry, time, and simplifies the budgeting process with real-world ease.

8. **Spending Trend Predictions:**
   The project examines past expenditure data to predict possible overspending. For instance, it can alert students whether their current rate of spending will leave them significantly short in a couple of days' time. Predictive information like this allows for course correction in time and improved money management.

9. **Monthly Financial Wellness Report:**
   The platform provides each student with a customized monthly report that provides them with an overall view of their budgeting performance, test scores, and money advice from money experts. The report gives in-depth information regarding spending behavior, learning progress, and money choices. It warns students of what is going on with their money and always serves their financial interest.

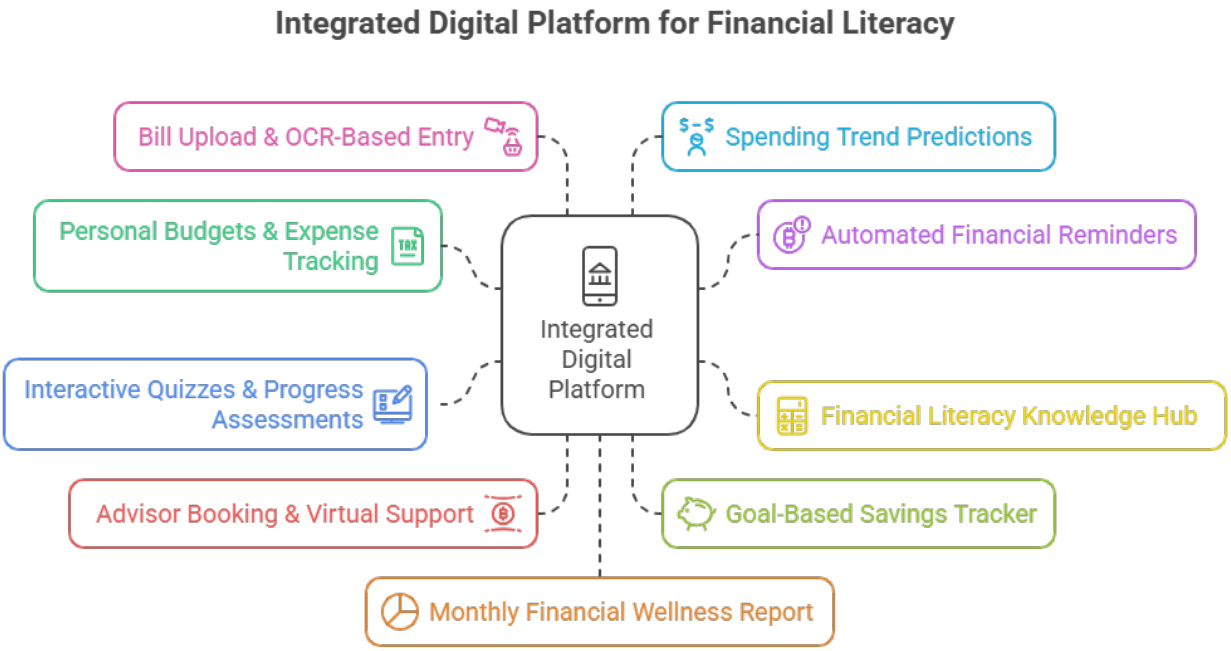

Figure 1: Overview of an Integrated Digital Platform for Financial Literacy

Student Finance Management Workflow

Fig. 2 represents the user journey within our student-focused financial literacy platform. Upon logging in, students access a centralized dashboard that connects all key financial tools in one place. They can create budgets, set saving goals, and track progress with visual dashboards. By uploading receipts or bills, the OCR engine automatically extracts expense details and logs them for analysis. Students receive real-time charts, automated reminders, and alerts for potential overspending. Simultaneously, they can build financial knowledge through interactive quizzes, articles, and tutorials, with progress dashboards and instant feedback. For personalized support, students can either chat with a virtual assistant or schedule one-on-one sessions with financial advisors. Collectively, these features guide students toward better financial habits, literacy, and control.

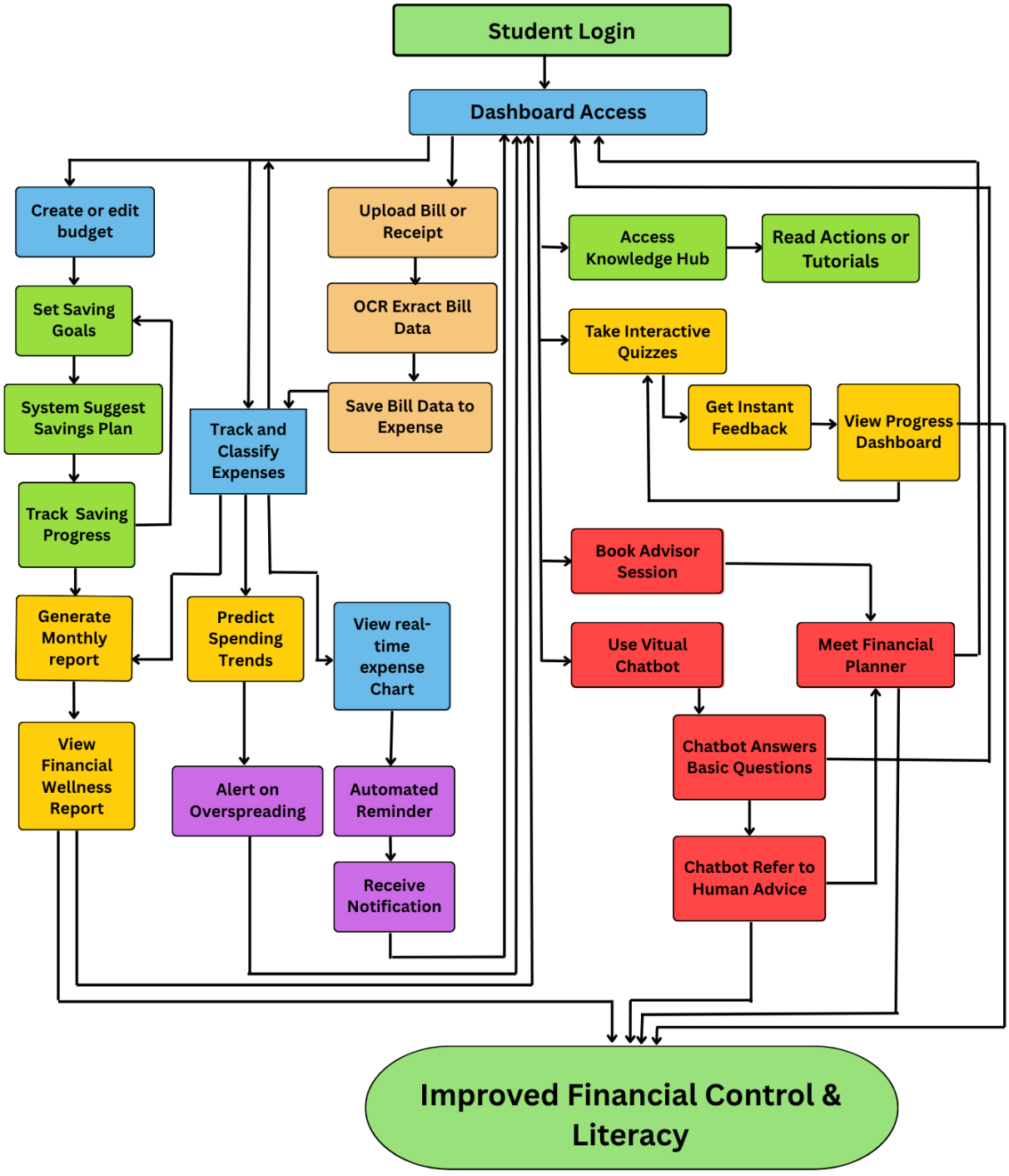

Figure 2: Student Financial Literacy and Management System Flow

Innovation

Our solution is unique in bringing together financial management, personalized learning, intelligent automation, and prescriptive insights in a single integrated student-centric platform that is not possible using available tools.

What Makes It Innovative?

1. **Unified Learning & Financial Management:**
   Rather than context-switching among budgeting apps, reminder apps, and learning websites, students have a single place where they integrate budgeting, expense management, and financial learning. They can act and learn in a single place — no context-switching required.

2. **Data-Driven Personalization:**
   The site adjusts according to individual behavior. For instance, if a student is going to run out of budget, then he or she is presented with a related knowledge article such as "Saving Strategies" or encouraged to take a budget quiz. This keeps the experience timely and relevant.

3. **Smart Automation:**
   Features such as OCR-based receipt/invoice upload from receipts or invoices negate manual receipt or invoice entry. Monthly financial health reports roll up spending habits, quiz answers, and personal advisor suggestions — negating manual work and increasing financial literacy.

4. **Predictive Financial Insights:**
   The platform forecasts overspending patterns (e.g., "You can overspend your food budget within 5 days") from past expenditure patterns and reminds users ahead of time, allowing them to make corrections in time.

5. **AI-Driven Assistance:**
   An integrated Virtual Agent provides 24/7 support via the answers to common questions and referral of complex ones to human advisers. Supported by personalized alerts, it provides access to financial guidance at any moment without the need to scan through documents.

Bridging the Gap: Comparing Current Financial Tools vs. Our Student-Centric Solution

Feature/Aspect	**Existing Tools**	**Proposed Platform Tools**
Unified Platform	Tools are fargmented across multiple apps	Combines budgeting, learning, reminders, and guidance in one place
Personalized Learning	No learning tied to user behaviour	Financial content and quizzes adapt to user activity and performance
Automation & Smart Entry	Manual entry of expenses and receipts	OCR-based receipts upload and smart categorization of expenses
Predictive Insights	No forecasts or alerts for future budget issues	Alerts students about potential overspending based on trends
Real-Time Advisor Access	No integrated access to advisors or counselors	Direct appointment booking and chatbot for real-time support

With this innovative solution, learning about finance is transformed from passive theory into effective instant advice, a step up from traditional budgeting software or personal learning apps.

Implementation Plan

Timeline

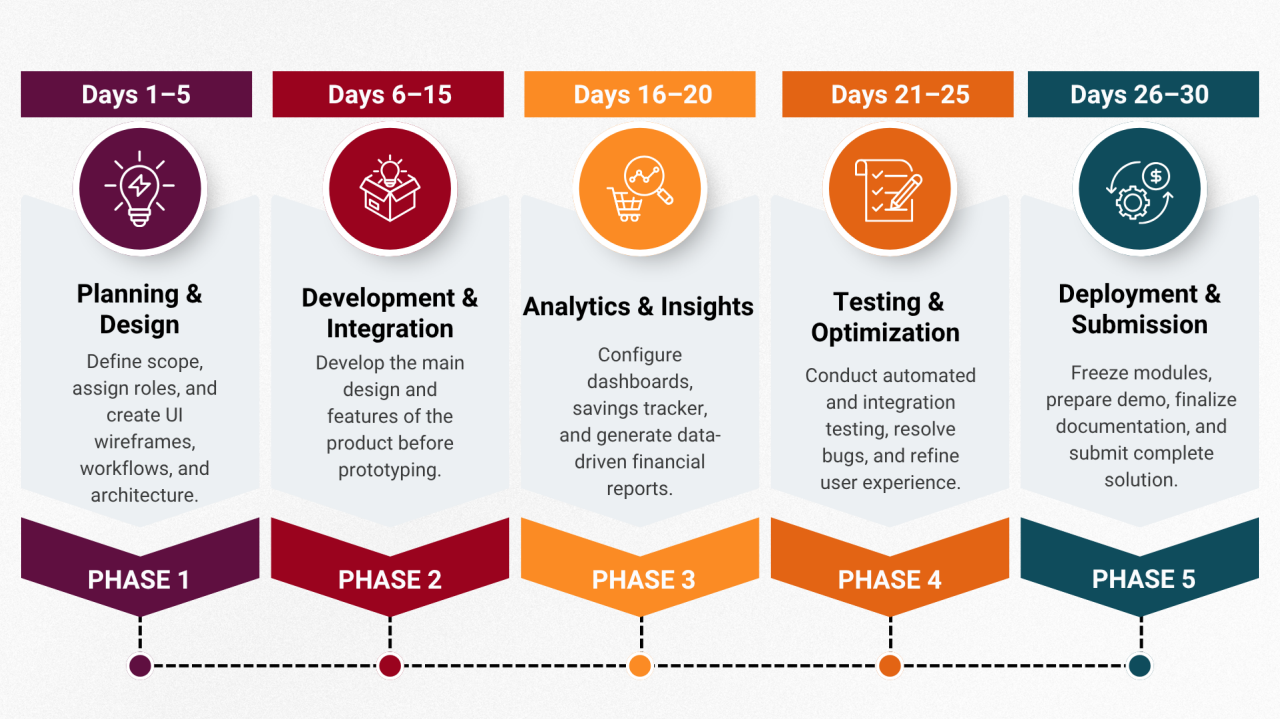

Figure 3: 5-Phase Project Development Timeline

Phase 1: Planning & Design (Days 1–5)

- Conduct the initial problem analysis using research data and student surveys to validate the need.
- Finalize platform goals such as improving financial literacy, reducing financial stress, and promoting budgeting habits.
- Define core features: budgeting tools, OCR-enabled receipts, financial reminders, and monthly wellness reports.
- Design wireframes for Service Portal UI and plan data architecture and workflow design.
- Identify required ServiceNow modules and third-party integrations (OCR, calendar APIs).

Phase 2: Development & Integration (Days 6–15)

- Set up the ServiceNow instance using Service Portal, Knowledge Base, and Flow Designer.
- Develop custom tables for budgets, expenses, savings goals, quizzes, and appointments.
- Integrate OCR (e.g., Tesseract) for bill/receipt parsing and extract data into expense logs.
- Configure the Virtual Agent for automated financial queries and advisor escalation.
- Implement advisor appointment booking via HRSD/App Engine and integrate calendar APIs.
- Set up the notification system to send email, SMS, and in-app financial alerts.

Phase 3: Analytics & Insights (Days 16–20)

- Enable dashboards using Performance Analytics to visualize budgeting progress and engagement.
- Implement predictive logic to forecast overspending risks and offer corrective suggestions.
- Configure logic for personalized quiz recommendations and content delivery.
- Automate generation of monthly financial wellness reports with insights and performance data.

Phase 4: Testing & Optimization (Days 21–25)

- Use Automated Test Framework (ATF) to validate workflows, forms, and user actions.
- Conduct usability testing to gather feedback on the portal interface and navigation.
- Optimize dashboard performance, widget responsiveness, and UI load times.
- Validate OCR accuracy and fine-tune category mapping and reminder thresholds.

Phase 5: Finalization & Demo (Days 26–30)

- Deploy the final build of the application on the ServiceNow instance with all modules functional.
- Prepare the demonstration flow highlighting budgeting, OCR upload, savings tracker, chatbot, and booking features.
- Compile technical documentation and finalize the submission package for HackNow India 2025.
- Conduct internal reviews and Q&A rehearsals to prepare for the final evaluation panel.

Tools and Technologies

To make our student finance platform come alive and function flawlessly, we trust in a smart blend of ServiceNow modules, automations, and third-party integrations. The key technologies we use are:

Core ServiceNow Components Used:

Component	**Purpose**
Service Portal	Serves as the central student interface to access budgeting tools, goal trackers, financial dashboards, quizzes, receipts, and advisor booking system
Knowledge Base (KB)	Hosts financial education articles, multimedia tutorials, FAQs, and guides on topics such as credit, savings, budgeting, and loans.
Surveys & Assessments	Used to create gamified quizzes and self-assessments on financial literacy. Displays performance dashboards for tracking progress.
Notifications	Sends automated bill payment reminders, low balance alerts, budget limit warnings, and savings tips via SMS, email, and in-app messages.
Custom Tables	Stores structured data such as user budgets, spending categories, goal targets, quiz responses, OCR receipts, and advisor appointments.
Reports & Dashboards	Visualizes user's budgeting habits, quiz progress, savings performance, and generates monthly wellness reports for personalized feedback.
Flow Designer	Automates scheduling reminders, goal tracking, monthly report generation, and system workflows — all with minimal coding.
Business Rules	Adds backend logic for updating budget status, validating user inputs, generating alerts, and flagging financial inconsistencies.
Client Scripts	Improves user interaction with dynamic field behavior (e.g., show/hide logic), validations, and form enhancements in budgeting or booking flows.

Virtual Agent	Offers AI-powered chat support for FAQs, guiding users through basic financial tasks, and escalating complex issues to human advisors.
Appointment Booking (via HRSD or App Engine)	Enables calendar-based booking of advisor consultations with automated notifications and integration with personal calendars.

Add-ons and Integrations:

Integration	Purpose
OCR Integration (e.g. Tesseract / Google Vision)	Auto-extracts amount, date, and category from uploaded receipts and logs them as expenses. Saves manual effort.
Calendar API Integration (Google/Outlook)	Syncs student-advisor meetings with personal calendars and sends automated event reminders.

Testing and Monitoring Tools:

Tool	Purpose
Automated Test Framework (ATF)	Used for automated regression testing of flows, notifications, forms, and integrations before deployment.
Performance Analytics	Tracks metrics like student engagement, financial improvement, quiz activity, savings goals, and advisor interaction trends.

Team Structure

Role Assignment

Each team member was assigned a dedicated role aligned with core areas of ServiceNow application development, ensuring streamlined execution of the Student Finance Management System.

1. **Renuka Wadetwar: Project Manager & Team Lead**

   Responsible for end-to-end project leadership, solution design, and architectural decisions. Oversees module development, aligns team tasks with platform capabilities, and ensures successful delivery of the application.

2. **Sucheti Kanere: Service Portal Designer**

   Leads the front-end implementation of the Service Portal. Designs and configures user interfaces using portal widgets, theming, and responsive layouts to optimize the student experience.

3. **Poornima Mendhekar: Workflow Developer**

   Develops backend process automation using Flow Designer and Business Rules. Implements logic for expense tracking, financial reminders, and booking requests.

4. **Abhishek Sarodaya: Performance Analytics Developer**

   Designs and configures dashboards using Performance Analytics. Generates real-time and scheduled financial reports for students and administrators.

5. **Ayushi Nagpure: QA & Integration Engineer**

   Implements automated testing using the Automated Test Framework (ATF). Develops integrations with external APIs including OCR for document reading and calendar systems for scheduling.

6. **Minakshi Rokade: Knowledge Manager**

   Creates and manages Knowledge Base articles focused on financial literacy. Designs interactive content such as quizzes and learning modules to enhance user engagement and awareness.

Responsibility Matrix

Task	**Responsible Members**
UI/UX Design	Sucheti Kanere
Backend Automation	Poornima Mendhekar
OCR & API Integration	Ayushi Nagpure
Backend Automation	Poornima Mendhekar
Dashboards & Reports	Abhishek Sarodaya
Financial Content & Quizzes	Minakshi Rokade
Team Management & Solution Architecture	Renuka Wadetwar

Expertise and Responsibilities

Each team member's role is thoughtfully aligned with their core ServiceNow-related skills to ensure focused development, module ownership, and effective collaboration throughout the implementation of the Student Finance Management platform.

1. **Renuka Wadetwar serves as the Project Manager and Solution Architect**

   She brings expertise in ServiceNow architecture, workflow planning, and team coordination. She is responsible for overseeing the end-to-end system design, integrating platform components, and ensuring cohesive collaboration across modules using Flow Designer and backend logic structuring.

2. **Sucheti Kanere functions as the Service Portal Designer**

   She specializes in UI/UX, Service Portal configuration, and responsive design. Her responsibilities include developing the front-end interface, creating custom widgets, and ensuring a user-friendly and accessible experience tailored to students' financial needs.

3. **Poornima Mendhekar is assigned the role of Workflow Developer**

   She is skilled in Flow Designer, Business Rules, and backend automation. She builds and manages automated workflows for budgeting, reminders, and appointment scheduling, translating real-life student use cases into efficient platform logic.

4. **Abhishek Sarodaya contributes as the Performance Analytics Developer**

   He focuses on indicators, dashboards, and visual reporting within ServiceNow. He is responsible for configuring analytics components to provide meaningful financial insights, student progress tracking, and real-time budgeting dashboards.

5. **Ayushi Nagpure takes on the role of QA & Integration Engineer**

   She has strong capabilities in the Automated Test Framework (ATF), OCR technologies, and API integrations. She ensures platform stability by implementing test cases, integrates receipt scanning via OCR, and syncs advisor appointments using calendar APIs.

6. **Minakshi Rokade serves as the Knowledge Manager**

   She brings strengths in Knowledge Base structuring, content development, and interactive learning. She curates educational articles, designs gamified quizzes using Surveys and Assessments, and leads efforts to promote financial literacy among users.

During the hackathon, each team member is responsible for their respective module while actively contributing to integration, testing, final deployment, and the overall solution presentation — ensuring a cohesive, technically sound, and impactful ServiceNow application that addresses real student financial challenges.

Leadership and Coordination

Renuka Wadetwar serves as the Team Lead and Project Manager, responsible for overseeing the end-to-end execution of the ServiceNow application. She defines the solution architecture, allocates responsibilities, manages timelines, and ensures seamless integration of all modules. The team follows a collaborative approach, where each member owns a specific module while actively contributing to shared tasks such as integration, testing, deployment, and demo preparation. Regular coordination and effective communication under Renuka's leadership ensure a unified and high-quality solution.

The Team

Renuka Wadetwar
Project Manager & Team Lead

Sucheti Kanere
Service Portal Designer

Poornima Mendhekar
Workflow Developer

Abhishek Sarodaya
Performance Analytics Developer

Ayushi Nagpure
QA & Integration Engineer

Minakshi Rokade
Knowledge Manager

References

ServiceNow Documentation
ServiceNow Service Portal
ServiceNow Surveys and Assessments
ServiceNow Integration Hub
ServiceNow Knowledge Management
ServiceNow Virtual Agent
ServiceNow Developer Guides