Software Requirements Specification

for

SA Hub: Enhancing APC-SA Process Through Automated Record Keeping and Criteria-Based Task Assignment Web-Based System

Version 1

Prepared by

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Date: September xx, 2024

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Revisions

Version	Primary Author(s)	Description of Version	Date Completed
Draft Type and Number	Full Name	Information about the revision. This table does not need to be filled in whenever a document is touched, only when the version is being upgraded.	00/00/00

1 Introduction

This document serves to outline the objectives and framework of SA Hub, providing a comprehensive overview of its scope and intended audience. It aims to inform stakeholders, including team members and project sponsors, about the project's goals and deliverables. Additionally, the document defines key terms, acronyms, and abbreviations to ensure clarity and understanding throughout. Established conventions for formatting and terminology are employed to maintain consistency. Lastly, references to relevant materials and acknowledgments to contributors are included to enhance the document's credibility and support the project's successful execution.

1.1 Document Purpose

This document outlines the software requirements for the SA Hub system, which is designed to automate and optimize the Student Assistants (SA) task assignment process at Asia Pacific College (APC). The software version covered in this document is the initial release of the system, focusing on automating record-keeping and criteria-based task allocation for Student Assistants. The purpose of this Software Requirements Specification (SRS) is to provide a clear and comprehensive guide to all functionalities, features, and constraints of the system, ensuring that the development, testing, and implementation phases align with user needs and institutional requirements.

1.2 Product Scope

The SA Hub system aims to smoothen the current manual processes involved in assigning tasks to APC Student Assistants. Its main goal is to provide automated record-keeping of rendered hours and allocate tasks based on the availability and course programs of SAs. This will significantly reduce manual errors, improve time management for SAs, and increase the efficiency of task assignments.

By automating these processes, the system ensures that students have relevant job experiences and that offices receive prompt and accurate assistance. Key benefits include reducing workload for the Student Assistant Manager, increasing job satisfaction for SAs, and improving the quality of office task assignments.

1.3 Intended Audience and Document Overview

This SRS is intended for the following audiences: developers responsible for building the system, project managers overseeing the development, testers validating functionalities, student assistants, APC staff (including the SA Manager and Office personnel) who will use the system, and the professor reviewing the project. The document provides a structured breakdown of the system's functionalities, beginning with an introduction to the system and its goals, followed by detailed descriptions of functional and non-functional requirements, and concluding with models and diagrams that guide system implementation. Readers should start with the overview sections and move through the functional requirements to understand the core system capabilities, followed by technical diagrams for development and testing teams.

1.4 Definitions, Acronyms and Abbreviations

This section provides a list of all abbreviations and acronyms used in this document to ensure consistent interpretation of terms.

Abbreviations	Acronyms	Definitions
APC	Asia Pacific College	A private higher education institution in the Philippines, focusing on technology and business.
DO	Discipline Office	Office in APC responsible for enforcing academic policies and discipline.

ERD	Entity Relationship Diagram	Visual representation of the entities in a database and their relationships.
GWA	General Weighted Average	Numerical representation of a student's academic performance, calculated by averaging grades, weighted by credit units.
TMS	Microsoft	Multinational technology company known for its software products, including Windows OS and Microsoft Office.
SA	Student Assistant	Student employed to assist faculty or staff with various academic or administrative tasks.
SAP	Student Assistant Program	Program designed to provide students with opportunities to work as assistants in various capacities within an educational institution.
UI/UX	User Interface/ User Experience	UI refers to the design of user interfaces, while UX focuses on the overall experience users have when interacting with a product or service.

1.5 Document Conventions

This document follows the IEEE formatting requirements. The conventions are outlined below:

- **Font**: Use **Arial** font, size **11** hroughout the document for all text.
- **Italics**: Use *italics* for comments and notes for clear distinction.
- **Text Spacing**: The document is **double-spaced** to enhance readability.
- **Margins**: Maintain **1-inch margins** on all sides as specified in this template.
- **Section Titles**: Follow the template for formatting section and subsection titles, ensuring they are bold and appropriately sized for clear navigation.

Naming Conventions

- Variables and system components should be named consistently with standard programming conventions, using descriptive names wherever possible (e.g., student_schedules, sa_profiles).

1.6 References and Acknowledgments

When creating software requirements specifications, it's essential to acknowledge the tools and resources that inform your process. In this regard, ChatGPT, developed by OpenAI, offers valuable insights through its natural language processing capabilities, enabling clear communication of complex requirements. Additionally, Visual Paradigm serves as a powerful modeling tool, facilitating the visualization and documentation of software requirements. APC Student Handbook for providing details on SAP and related regulations.

Together, these resources enhance the clarity, accuracy, and effectiveness of requirements gathering and specification, ensuring that all stakeholders have a shared understanding of the project goals.

2 Overall Description

2.1 Product Overview

2.1.1 2.1 Product Overview

Product Perspective:

Student Assistant (SA) task assignment process and integrating scholarship status management at Asia Pacific College (APC). In addition to automating task allocation and record-keeping, the system introduces a robust scholarship management feature, ensuring comprehensive oversight of SAs' academic and work performance.

The system is designed to support three primary stakeholders: Student Assistants, the SA Manager, and the Guidance Office. The SA Manager oversees task assignments and manages scholarship statuses, including monitoring SAs on probation or those whose scholarships have been cancelled. The Guidance Office is provided with a dashboard to review scholarship reports at the end of each academic year, streamlining administrative processes and ensuring transparency across departments.

The system also integrates seamlessly with APC’s Information System (APCIS), ensuring data accuracy and operational consistency across the institution.

Diagram Description:

At a high level, the system will interact with three major stakeholders: SAs, the Student Assistant Manager (SA Manager), and Requesting Offices. The interaction includes

submitting task requests, assigning SAs to tasks based on their schedules and program requirements, and generating reports on task completion.

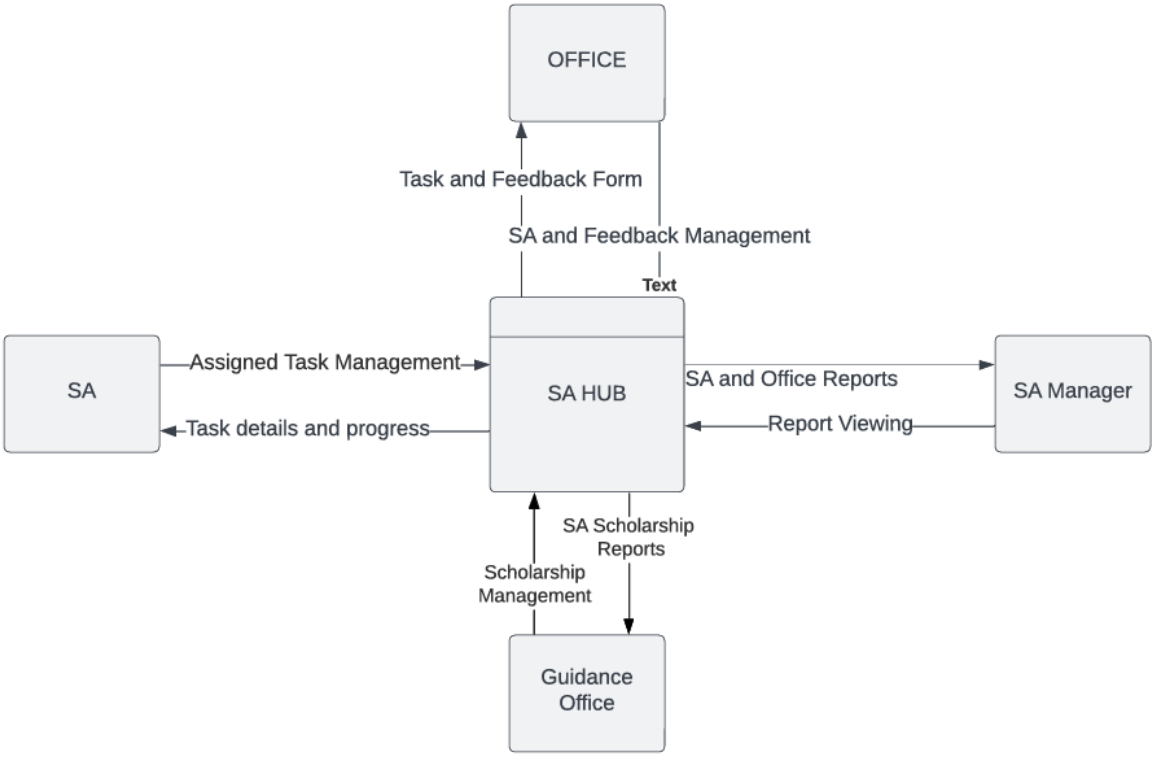

Figure 1. Context Flow Diagram

In this diagram:

- Requesting Offices submit tasks via the system.
- The SA Hub automates task assignment based on criteria such as availability and academic program.
- The SA Manager supervises tasks and manages SA scholarship statuses.
- The Guidance Office uses the scholarship dashboard to monitor reports on SAs, including their scholarship status (scholar, probation, or cancelled), and reasons for probation or cancellation.

2.2 Product Functionality

Major Functions of the System:

- Automated Task Assignment: Tasks are assigned to Student Assistants based on their academic program and availability.
- Real-time Task Tracking: The system allows tracking of task progress and deadlines.
- Profile and Attendance Management: Student Assistants manage profiles, log work hours, and view task history.
- Criteria-based and Voluntary Task Requests: Offices can submit specific task requests or post voluntary tasks.
- Scholarship Status Management: The system manages and tracks scholarship statuses, including scholarship, probation, and cancellation details.
- SA Reports: A new column for *Scholarship Status* is added to track the scholarship condition of each SA.
- Scholarship Status Page: The SA Manager can input scholarship details, including the student's name, the reason for probation or scholarship cancellation.
- Cancellation of Scholarship Page: Displays a table with the SA’s name, reason for cancellation, and a cancellation button.
- Guidance Dashboard for Scholarship Management: The system provides a dedicated dashboard to monitor the number of SAs and their scholarship statuses (scholar, under probation, or cancelled) at the end of each academic year. It also tracks reasons for probation and cancellations.

- Cancellation of Scholarship Page (Guidance Account): Displays a table with the SA's name, reason for cancellation, and an action button for the process.
- Report Generation: Generates comprehensive reports, including task completion, rendered hours, and scholarship status updates.
- Communication and Notifications: Timely notifications of new task assignments and scholarship updates, with feedback mechanisms for completed task

2.3 Design and Implementation Constraints

Hardware Limitations

The system must respond to user input and process tasks within acceptable timeframes, especially for time-sensitive tasks. The system should be efficient in its use of memory to avoid performance bottlenecks and ensure smooth operation.

Interfaces to Other Applications

IThe system may need to integrate with existing systems like a student information system or HR system, requiring compatibility and data exchange protocols.

Specific Technologies, Tools, and Databases

The choice of programming languages, frameworks, and databases will be influenced by factors like team expertise, project requirements, and long-term maintainability. The database should be capable of handling the expected data volume, providing efficient query performance, and supporting the required data structures and relationships.

Language Requirements

The chosen language should be suitable for web development, have a strong community and ecosystem, and offer the necessary features for the project. If the system involves communication with other systems or devices, appropriate network protocols (e.g., HTTP, WebSocket) should be selected.

Security Considerations

The system must protect sensitive data like SA information and task details from unauthorized access. Also, implement robust mechanisms for user authentication and authorization to control access to different system features.

Design Conventions or Programming Standards

Adhere to coding standards and conventions to ensure code readability, maintainability, and consistency. The team should also consider using established design patterns to improve code structure, reusability, and extensibility.

Additional Constraints

The project may have budgetary constraints that limit the scope of features or the choice of technologies. It may be subject to tight deadlines, which could impact the level of detail in design or the implementation approach.

By carefully considering these constraints, the development team can make informed decisions and create a system that meets the project's objectives while addressing potential challenges.

2.4 Assumptions and Dependencies

The successful implementation of the web-based task assignment system hinges on several key assumptions. These assumptions encompass factors related to third-party components, development and operating environments, constraints, and dependencies on external factors. If any of these assumptions prove to be incorrect or change, it could significantly impact the project's requirements, design, and implementation. Therefore, it is essential to carefully consider and validate these assumptions early in the development process to mitigate potential risks and ensure the system's effectiveness.

List of Assumptions Related to Third-Party Components

- Integration with Existing Systems: Assuming seamless integration with existing HR systems, learning management systems, or other relevant software. This includes factors such as compatibility of data formats, APIs, and security protocols.
- Reliability of Time Tracking Software: Assuming the accuracy and reliability of any third-party time tracking software used. This may involve considerations such as data privacy, data security, and the software's ability to handle large volumes of data.

Assumptions Regarding Development and Operating Environment

- Internet Connectivity: Assuming consistent and reliable internet connectivity for all users. This includes factors such as network infrastructure, bandwidth, and potential disruptions due to outages or maintenance.
- Hardware and Software Requirements: Assuming sufficient hardware resources (e.g., servers, storage) and compatible software (e.g., operating systems, databases). This may involve considerations such as scalability, performance optimization, and compatibility with other systems.

- Security Measures: Assuming adequate security measures can be implemented to protect sensitive data. This includes factors such as data encryption, access controls, and protection against cyber threats like hacking and data breaches.

Assumptions Related to Constraints

- Budget: Assuming sufficient budget to cover development, maintenance, and ongoing costs. This may involve considerations such as cost-benefit analysis, resource allocation, and potential cost overruns.
- Timeline: Assuming the three-month timeline is feasible and can accommodate unforeseen challenges. This may involve factors such as project management methodologies, resource allocation, and risk management strategies.
- User Adoption: Assuming users will readily adopt the new system and provide necessary feedback for improvements. This may involve factors such as user training, change management, and ongoing support.

Dependencies on External Factors

- User Acceptance: The system's success may depend on user acceptance and adoption, which can be influenced by factors such as training, support, and perceived benefits.
- Academic Calendar Changes: Changes to the academic calendar, such as unexpected breaks or modifications to class schedules, could affect the system's ability to accurately schedule tasks.
- Ethical Considerations: Ethical considerations, such as data privacy and fairness in task allocation, may need to be addressed in the system's design and implementation.

3 Specific Requirements

3.1 External Interface Requirements

3.1.1 User Interfaces

I. Student Assistant Perspective

a. Homepage – Displays the features with a brief description for the student assistant, and a menu bar that can be found on all web pages. The user can see the tasks assigned automatically by the system based on their vacant schedule or course program. The SA or SAs, depending on the number of SAs needed, that fit the criteria, can only receive that task. The table shows the date and time, course program, office name, and office note. SAs can accept voluntary tasks and time in and out on this page.

b. Profile – The SA can view their name, year level, course program, and class schedule that is connected to the APC database.

II. Student Assistant Manager Perspective

a. Homepage – On this page, the discipline head can view tasks the assignments that came from the offices. This will now be automatically accessible to student assistants that meets the criteria (vacant time from the class schedule or/and course program). The tasks are also categorized into two statuses: on-going and done.

b. Student Assistant Reports – This page contains details of student assistants – name, student ID, email to contact them for a certain reason, and total hours rendered. For a more organized

look and easy monitoring, the user can either choose to see complete and ongoing student assistants.

c. Office Reports – This is where the DO can monitor the office's task assignments. Total number of added tasks, SAs assigned, and hours assigned.

d. Review Feedback – The SA Manager can view the list of SA assigned to that task. After viewing, the name, total hours rendered, and feedback from the office are displayed. The SA manager can view SAs per tasks to see office feedback, their time in and out, and edit hours for merits.

e. Add Major Offense – SA Manager also knows as the Discipline Officer can add major offenses of SAs to be recoded on the system and will also be used as a criteria for evaluating the scholarship status of SA. SA Manager can enter type of major offense, status, and reasos.

f. Probation Page - The table shows a list of SAs under probation for major offense.

g. Scholarship Page - The table shows a list of SAs with buttons on the sides where SA Manager can input his/her verdict regarding SA's scholarship status.

III. Office Perspective

a. Homepage – This page allows the office to add a task and view their task assignments. When adding a task, the user will fill out the form (Required: date and time, number of student assistants, and note. Optional: course program, tasks to be done, and voluntary task option). They can also edit and cancel the task.

b. Task Review – On this page, the office can add feedback about the SA's performance. They just must click the Add Feedback button, input their comments then submit them.

IV. Guidance Office

a. Home Page/Dashboard - This page shows graphs to illustrate data for *number* of SAs, scholarship status reports every end of school year (scholar, under probation, cancelled) , reason for probation, and reason for cancellation.

- Probation Page – A table that shows SA under probation. If the SA has 0.0 or FAIL at the end of school year, his/her name will reflect in this table.

- Scholarship Page - A table that shows SAs under cancellation of scholarship. If the SA is under probation and another 0.0 or FAIL at the end of school year, his/her name will reflect in this table. There are buttons on the sides where Guidance Office can input his/her verdict regarding SA's scholarship status.

3.1.2 Hardware Interfaces

The system's interactions with hardware components will primarily involve standard input and output devices, such as keyboards, mice, monitors, and printers. These devices will facilitate user interaction, data entry, and information display. While the system may not require direct interaction with sensors or specialized hardware, the possibility of integrating such devices in the future should be considered.

Input Devices

Keyboard: For manual data entry (e.g., task descriptions, SA names).

Mouse: For navigation and interaction with the user interface (on desktop and laptop devices).

Touchscreen: For navigation and interaction with the user interface on smartphones and tablets.

Output Devices

Monitor: For displaying information, such as task lists, SA schedules, and system notifications (on desktop and laptop devices).

Screen: For displaying information on smartphones and tablets.

Supported Devices

Desktop Computers: For users with a need for a larger screen and more powerful hardware.

Laptops: For users who require portability and flexibility.

Smartphones: For users who prefer mobile access and convenience.

Tablets: For users who desire a larger screen than a smartphone but still want portability.

3.1.3 Software Interfaces

The task assignment system will interact with various software components to facilitate data exchange and functionality. Key connections include integration with the student portal for accessing student information and course data, as well as integration with reporting and analytics tools for data analysis and visualization. These connections will enable the system to effectively manage task assignments, track student progress, and provide valuable insights into the overall performance of the task assignment proces*s.*

Student Portal and Information

- Student Information: The system may need to access student information, such as class schedules, program, and contact details, from the LMS.
- Course Data: Integration with the LMS can provide information about available courses, prerequisites, and course requirements, which can be used to assign tasks relevant to students' academic progress.

Reporting and Analytics Tools

- Data Export: The system may need to export data to reporting and analytics tools for further analysis and visualization.
- Integration: Integration with reporting tools can provide insights into task assignment efficiency, SA performance, and workload distribution.

3.2 Functional Requirements

3.2.1 F1: Automated Task Assignment

- FR1: The system shall automatically assign tasks to SAs based on their class schedule and course.
- FR2: The system shall retrieve and use SAs' profiles or records and availability schedules to match with task requirements.
- FR3: The system shall update task assignments in real time and notify the assigned SAs.

3.2.2 F2: Real-time Task Tracking

- FR1: The system shall display real-time task status updates for each assigned task.
- FR2: The system shall allow users to view and update the progress of tasks.

3.2.3 F3: Profile and Attendance Management

- FR1: The system shall enable SAs to time in/out to log their work hours.
- FR2: The system shall provide a view of task history for each SA.

3.2.4 F4: Criteria-based and Voluntary Task Requests

- FR1: The system shall allow offices to submit task requests based on specific criteria or task type.
- FR2: The system shall display automatically assigned tasks and do posting of voluntary tasks for SAs to accept.

3.2.5 F5: Scholarship Status Management

- FR1: The system shall track and update scholarship statuses, including Scholar, Under Probation, and Scholarship Revoked.
- FR2: The system shall maintain records of reasons for probation or scholarship revocation.

3.2.6 F6: SA Reports

- FR1: The system shall generate reports that reflect the records and scholarship status of each SA.

3.2.7 F7: Scholarship Status Page

- FR1: The system shall provide a page where the SA Manager can input and update scholarship details.
- FR2: The system shall allow the SA Manager and the Guidance Office to specify reasons for probation or scholarship cancellation.
- FR3: The system shall display the updated scholarship details on any pages related to scholarship status.

3.2.8 F8: Cancellation of Scholarship Page (SA Manager account)

- FR1: The system shall display a table with the names and relevant information of SAs whose scholarships are flagged because of major offenses.
- FR2: The system shall include a reason for each cancellation in the displayed table.

3.2.9 F9: Guidance Dashboard for Scholarship Management

- FR1: The system shall provide a dedicated dashboard for monitoring the number of SAs and their scholarship statuses.

- FR2: The system shall display scholarship statuses (Scholar, Under Probation, Scholarship Revoked) at the end of each academic year.
- FR3: The system shall track and display reasons for probation and scholarship revocation on the dashboard.

3.2.10 F10: Cancellation of Scholarship Page (Guidance Office account)

- FR1: The system shall display a table with the names and relevant information of SAs whose scholarships are automatically flagged as under probation because of academic performance.
- FR2: The system shall provide action buttons for processing scholarship status whether to Cancel Probation, Revoke Scholarship, or Retract Cancellation of Scholarship for isolated cases.
- FR3: The system shall include reasons for each action button clicked in the displayed table.

3.2.11 F11: Report Generation

- FR1: The system shall generate comprehensive reports on task completion, rendered hours, and scholarship status updates.

3.2.12 F12: Communication and Notifications

- FR1: The system shall send timely notifications for new task assignments, scholarship status decisions and other updates.
- FR2: The system shall provide feedback mechanisms and modifications of hours rendered for completed tasks.

3.3 Use Case Model

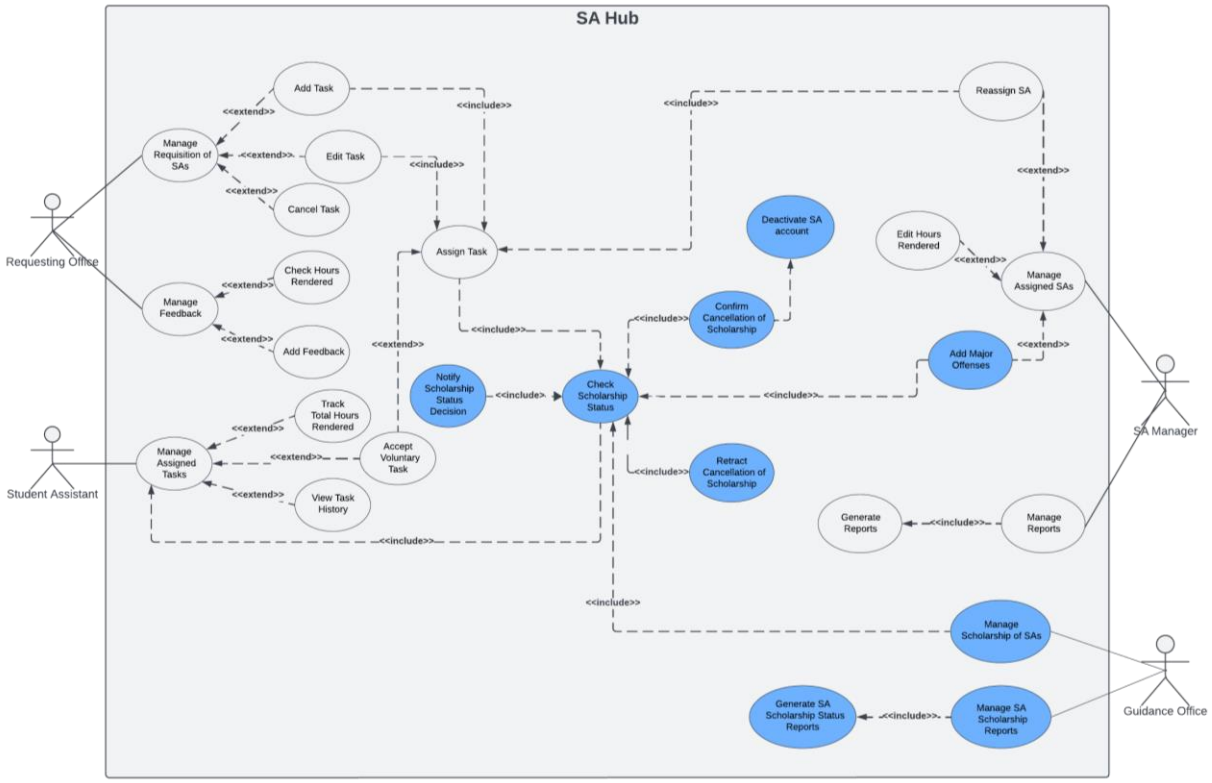

Figure 2. Use Case Diagram

3.3.1 Use Case #1

Use Case ID:	**UC1**
Use Case Name:	**Manage Requisition of SAs**
Scenario:	The requesting office needs SAs to do a certain task
Triggering Event:	Requisition for SAs
Brief Description:	This use case allows the requesting office to add tasks to request SAs. Also, the requesting office has the option to edit or cancel the tasks created.
Actors:	Requesting Office
Related Use Cases:	Add Task, Edit Task, Cancel Task
Stakeholders:	Asia Pacific College

Preconditions:	- If the office is not logged in to their account, then they cannot create tasks to be assigned to SAs. - There must be a task available	
Postconditions:	- The system displays the Add Task form. - The system assigns the task. - The system deletes the task	
Flow of Activities:	**Actor**	**System**
	1. The requesting office goes to its account homepage. 2. Manage Requisition for SA 2a. The Requesting Office creates a task for the SAs to do: 1. Clicks the Add Task button. 2. Fills out the Add Task form. 3. Submits the form. 2b. The Requesting Office wants to reschedule due to uncertain events (suspensions, changes in the decision, etc.): 1. The requesting office clicks the Edit button 2. Office edits task details. 3. Office clicks the submit button 2c. The Requesting Office wants to cancel task due to uncertain events	1.1. The system displays the requesting office account homepage. 2a.1.1 Displays the Add Task form. 2a.3.1 Proceeds to assign the created task to SAs. 2a.3.2 Post task to the assigned SAs, the SA Manager, and the Requesting Office 2b.1.1 Displays the Add Task form containing all the previous input 2b.3. Reassigns the task.

	(suspensions, changes in the decision, etc.): 1. Office clicks the cancel button	2c.1.1 Deletes the created task from all accounts.
Exception Conditions:	2a.3. If the form to be submitted has incomplete required fields (date, time, no. of student assistant, task assignment type), then the system cannot process the form. 2b.3. If the edited task form has incomplete required fields (date, time, no. of student assistant, task assignment type), then the system cannot process the form. 2c. If the office cancelled a task, SA who accepted or automatically assigned to the task will be reassign to another task	

3.3.2 Use Case #2

Use Case ID:	**UC2**
Use Case Name:	**Manage Assigned Tasks**
Scenario:	Task Assignment
Triggering Event:	SA receiving an assigned task, tracking hours rendered.
Brief Description:	This use case involves Student Assistants (SAs) accepting voluntary tasks and tracking hours they have rendered for each task.
Actors:	SA
Related Use Cases:	Track Total Hours Rendered, Accept Voluntary Task, View Task History
Stakeholders:	Asia Pacific College
Preconditions:	- If the SA is not logged in to their account, then they cannot view their task history and track their total hours rendered. - An assigned voluntary task is available in the system.
Postconditions:	- The SA is assigned to a task or tasks. - The SA has accepted and commenced the voluntary task. - Hours rendered for the task are recorded.

	- SA Profile > Task History is updated.	
Flow of Activities:	**Actor**	**System**
	1. The SA logs into their account 2. Manages Assigned Task 2a. SA wants to do voluntary tasks. 1. Browse available voluntary tasks 2. Clicks accept task 2b. SA clicks time in 2c. SA clicks time out 2d. SA wants to check his/her total hours rendered. 1. SA goes to homepage 2e. SA wants to see his/her task history 1. SA goes to profile.	1.1 The system displays the SA account homepage. 2.1 Shows program-and-schedule-based assigned task and voluntary tasks. 2a.1.1 Display task details of voluntary tasks 2b.1 Record Time In 2c.1 Record time out 2d.1 Display total hours rendered. 2e.1 Display profile page.
Exception Conditions:	2.If the SA did not do his/her assigned task, then the SA will be reassigned by the SA Manager to another task.	

3.3.3 Use Case #3

Use Case ID:	**UC3**
Use Case Name:	**Manage Feedback**
Scenario:	The requesting office wants to add feedback to SAs
Triggering Event:	Task Reviewing
Brief Description:	This use case allows the requesting office to provide feedback to each SA assigned to their created task, validating the attendance and hours rendered by the SA. The feedback can also be seen by the SA Manager and the assigned SAs on their respective accounts.
Actors:	Requesting Office

Related Use Cases:	Check Hours Rendered, Add Feedback	
Stakeholders:	Asia Pacific College	
Preconditions:	- If the office is not logged in to their account, then they cannot review tasks and send feedback to SAs. - The task must be completed in terms of the specified start and end time	
Postconditions:	- The completed task is displayed on the Task Review page	
Flow of Activities:	**Actor**	**System**
	1. The requesting office goes to the Task Review page	1.1. The system displays the Task Review page containing the task details and the assigned SAs for each task.
	2. Manages feedback. 2a. The requesting office views the hours rendered by the SA on the Task Review page containing task details (date, time, program, task, hours needed, note, assigned SAs with corresponding time in and time out, calculated hours based on time in/out) 2b. The requesting office wants to add feedback for SAs. 1. Clicks the Add Feedback button for each SA 2. Types the feedback on the text box form 3. Submits the feedback.	2b.1.1. Displays the Feedback form containing the SA name and a text box. 2b.3.1. Processes the feedback form and reflects the feedback on the SA and the SA Manager accounts

Exception Conditions:	2b. If the Requesting Office did not add feedback, no feedback will be reflected on SA and the SA Manager accounts

3.3.4 Use Case #4

Use Case ID:	**UC4**	
Use Case Name:	**Manage Assigned SAs**	
Scenario:	Feedback Viewing and Major Offenses of SAs	
Triggering Event:	Feedback Submission and SAs' Major Offenses	
Brief Description:	This use case involves the SA Manager reviewing and managing feedback submitted by Student Assistants (SAs) after their assignments.	
Actors:	SA Manager	
Related Use Cases:	Edit Hours Rendered, Reassign SA, Add Major Offenses	
Stakeholders:	Asia Pacific College	
Preconditions:	- SAs have completed their assignments. - Feedback from SAs is available in the system	
Postconditions:	- Feedback is reviewed and managed by the SA Manager. - Appropriate actions are taken based on the feedback received	
Flow of Activities:	**Actor**	**System**
	1. SA manager reviews the feedback to assess the performance of the SAs. 2. Takes appropriate actions based on the feedback and performance, including: 2a. SA has a merit. 1. SA Manager clicks edit hours	1.1. Displays office feedback 2a.1.1 Show edit hours modal

	2. Inputs additional hours based on office feedback 3. Wants to add the major offense/s of the SA and clicks the Add Major Offense button 4. Fills out the Add Major Offense form and then submits	2a.1.2 Add hours to SA's total hours rendered. 2b.1.1 Show edit hours modal 2b.1.2 Minus hours on SA's total hours rendered. 3.1. Displays the Add Major Offense form, including the fields (all required): name, section, major offense, and scholarship status decision 4.1. Process the submitted form and update the records and scholarship status of SA
Exception Conditions:	1. If the feedback is deemed invalid or does not align with established policies, the SA Manager will communicate with the office or not do the feedback of the office. 4.1. If any required fields in the form are incomplete	

3.3.5 Use Case #5

Use Case ID:	**UC5**	
Use Case Name:	**Manage Reports**	
Scenario:	Reports Viewing	
Triggering Event:	SA Manager accessing reports for SA and Office task assignment progress.	
Brief Description:	This use case involves the SA Manager viewing and managing reports related to Student Assistant (SA) and Office task assignment progress.	
Actors:	SA Manager	
Related Use Cases:	Generate Reports	
Stakeholders:	Asia Pacific College	
Preconditions:	- Reports on SA and Office task assignment progress are available in the system	
Postconditions:	- The SA Manager has viewed and managed the reports. - Decisions or actions may be taken based on the information in the reports.	
Flow of Activities:	**Actor**	**System**

	3.SA Manager monitors SA and Office task assignment progress	1. Records SA and Office progress: 1.1a SA's current hours rendered 1.1b Office total task and SA assigned 1.1c Total of ongoing and completed SA rendering 1.1d SA's scholarship status 2. Generate reports 3.1 Display reports 4.Update Reports if there is a new action or progress recorded
Exception Conditions:	1. If there is no progress or activities on the SA and Request Office accounts, no information will be recorded, and the system cannot generate reports.	

3.3.6 Use Case #6

Use Case ID:	UC6
Use Case Name:	Manage Scholarship of SAs
Scenario:	Scholarship Status Monitoring
Triggering Event:	System flags SA as under probation
Brief Description:	This use case involves the Guidance Office managing the scholarships of SAs, with the ability to either cancel a scholarship or retract a previous cancellation.
Actors:	Guidance Office
Related Use Cases:	Check Scholarship Status, Confirm Cancellation of Scholarship, Retract Cancellation of Scholarship
Stakeholders:	Asia Pacific College
Preconditions:	- The system has access to the SA records, including their grades for each subject in every term.
Postconditions:	- The Guidance Office has decided the SA's scholarship status, either cancel or continue the scholarship.

Flow of Activities:	**Actor**	**System**
		1.1. The system checks the scholarship status based on the SA Records (major offense – input from SA Manager) and grades for each subject in every term, using the following conditions: 1.1a. If the SA receives one 0.0 final grade, system will automatically flag the SA as under probation 1.1b. If the SA got two or more 0.0 final grade within two consecutive S.Y. the system will notify the Guidance Office to decide whether to confirm cancellation or retract cancellation of the scholarship
	1. Guidance Office visits the list of SAs on probation	1.2. Displays the list of SAs under probation
	2. Guidance Office visits the list of SAs candidate for cancellation of scholarship	2.1. Displays the list of SAs candidate for cancellation of scholarship with options to: 2.1a. Confirm cancellation of scholarship 2.1b. Retract cancellation of scholarship
	3. Guidance Office has decided on the scholarship status of the candidate SA	3.1. Updates the scholarship status and records of the SA based on the decision if it is to: 3.1a. Confirm cancellation – change SA status into Scholarship Revoked, and then the system will Deactivate SA Account 3.1b. Retract cancellation – remain SA status into Scholar
Exception Conditions:	3, 3.1. If the Guidance Office has not decided on the scholarship status of the SA, the system will notify the Guidance Office to decide in a certain period.	

3.3.7 Use Case #7

Use Case ID:	**UC7**	
Use Case Name:	**Manage SA Scholarship Reports**	
Scenario:	Reports Viewing	
Triggering Event:	Guidance Office views and manages scholarship reports to monitor SAs' eligibility.	
Brief Description:	This use case involves the Guidance Office reviewing the SA scholarship reports.	
Actors:	Guidance Office	
Related Use Cases:	Generate SA Scholarship Status Reports	
Stakeholders:	Asia Pacific College	
Preconditions:	- Records of SA personal information and scholarship status must be available in the system.	
Postconditions:	- The Guidance Office has viewed and managed the reports. - Decisions or actions may be taken based on the information in the reports.	
Flow of Activities:	**Actor**	**System**
	3. Guidance office monitors the scholarship statuses of SAs	1. Records the SA personal information (name, student ID number, course) along with the scholarship status of each SA (e.g. scholar, under probation, or cancelled scholarship). 2. Generate reports 3.1. Display SA Scholarship reports 4. Update Reports whenever there is a new action regarding the scholarship status
Exception Conditions:	2. Records must be available and accessible to generate reports.	

4 Other Non-functional Requirements

4.1 Performance Requirements

P1. Task Assignment Response Time: The system should assign tasks to Student Assistants within 1 minute of the request being submitted by the office, ensuring real-time task allocation. This kind of fast transaction of request ensures that the distribution will not be delay especially during peak hours.

P2. Task Tracking Updates: Task status updates, such as task completion or deadline adjustments, should reflect in the system within 10 seconds to ensure accurate and timely reporting for both SAs and office.

P3. Profile and Attendance Management: When Student Assistants log work hours or update their profiles, the system should process and reflect these updates within 3 seconds to ensure accurate record-keeping.

P4. Simultaneous Users: The system must handle up to 400 simultaneous users for student assistants, SA manager, requesting office and guidance without degradation in performance, particularly during peak periods such as the start and end of semesters.

P5. Generating Report: Reports of assistant students including task completion, rendered hours, and scholarship status updates should be generated within 10 seconds.

P6. Notification: Notifications for new task assignments and scholarship updates should be delivered within 1 second after a change occurs in the system, ensuring prompt communication between SAs and the offices.

4.2 Safety and Security Requirements

S1. Data: Personal information of student assistant must be encrypted at rest using AES-256 encryption, this is to ensure that the personal information of students is protected from unauthorize access.

S2. Transmission: Data transmission between the client and server shall use HTTPS with TLS 1.3 or higher to ensure secure communication.

S3. Role-Based Access Control: Accessing student records should be restricted based on user roles. Student assistant can only access their own profile, hours render and tasks. For SA Manager (put here what can be access).

S4. Complexity: User passwords must meet complexity requirements: minimum 12 characters, including uppercase and lowercase letters, numbers, and special characters.

S5. Emali Notifications: All email notifications sent by the system shall not contain sensitive information in the body of the email. Instead, they should prompt users to log in to the system to view details.

4.3 Software Quality Attributes

4.3.1 Usability

The SA Hub system should prioritize usability to ensure efficient adoption and use by all stakeholders, and to achieve this the user interface shall follow responsive design principles, ensuring compatibility across desktop. The system should have a context-sensitive help and tooltips for complex functions. All major functions like tasks and generating reports should be accessible from the main dashboard. Measurement for this is the usability will be verified through user acceptance testing, with a target of 90% of users rating the system as "easy to use" or better on a 5-point Likert scale.

4.3.2 Reliability

Given the critical nature of task assignments and scholarship management, the SA Hub must maintain high reliability. In the event of a system crash, automatic recovery procedures shall restore the system to a consistent state within 10 minutes. The system should have implemented transaction logging for all critical operations, which are task assignments and scholarship status changes this is to ensure data integrity. The measurement for the reliability will be monitored through automated logging and reporting tools, with monthly reviews of uptime statistics and recovery incidents.

4.3.3 Maintainability

To ensure long-term sustainability and ease of updates, the SA Hub shall be designed with maintainability in mind. All code shall adhere to established coding standards and be thoroughly documented, including inline comments and external documentation. The system shall use dependency injection to minimize coupling between components, facilitating easier updates and testing. A comprehensive test suite, including unit tests and integration tests, shall cover at least 80% of the codebase. The measurement for maintainability will be assessed through regular code reviews, static code analysis tools, and monitoring of the time required for implementing new features or bug fixes.

4.3.4 Scalability

To accommodate future growth in the number of Student Assistants and tasks, the SA Hub shall be designed for scalability like the database schema shall be optimized for performance with large datasets, including proper indexing and partitioning strategies. The system architecture shall support horizontal scaling, allowing for the addition of application servers to handle increased load. Caching mechanisms shall be implemented for frequently accessed data to reduce database load. The measurement for scalability will be verified through load testing, simulating up to 10 times the

expected initial user base and task volume. The system should maintain response times within 25% of baseline performance under this increased load.

4.3.5 Interoperability

To ensure seamless integration with existing APC systems, the SA Hub shall prioritize interoperability. The system shall expose a well-documented API for data exchange with other college systems, such as APCIS. Data import and export functionality shall support common formats (CSV, JSON) to facilitate easy data transfer with other systems. The system shall use standard protocols for authentication and authorization when integrating with external services. The measurement for interoperability will be verified through successful integration testing with mock external systems and validation of data exchange processes. These software quality attributes are designed to ensure that the SA Hub system is not only functional but also user-friendly, reliable, easy to maintain, scalable for future growth, and capable of integrating with other college systems. By adhering to these attributes, the system will provide a robust and efficient solution for managing Student Assistant tasks and scholarships at Asia Pacific College.

5 Other Requirements

*<This section is **Optional**. Define any other requirements not covered elsewhere in the SRS. This might include database requirements, internationalization requirements, legal requirements, reuse objectives for the project, and so on. Add any new sections that are pertinent to the project.>*

Appendix A – Data Dictionary/ERD

<Data dictionary is used to track all the different variables, states and functional requirements that you described in your document. Make sure to include the complete list of all constants, state

variables (and their possible states), inputs and outputs in a table. In the table, include the description of these items as well as all related operations and requirements.>

Appendix B - Group Log

<Please include here all the minutes from your group meetings, your group activities, and any other relevant information that will assist in determining the effort put forth to produce this document>

Appendix C – Test Plan/Test Cases