

# ISLAMIC UNIVERSITY OF TECHNOLOGY

*Board Bazar, Gazipur, Dhaka.*

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## Document on the term project of Software Requirement and Specifications: SWE 4402

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**Fourth Semester**  
Department of Computer Science and Engineering  
BSc. in Software Engineering

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June 10, 2024

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## 1 Assigned System

**Laundry System** by Team1(EVEN)

## 2 List of team members

- Nazifa Tasneem - 210042114
- Namisa Najah Raisa - 210042112
- Tasnia Anower Medha - 210042124

## 3 Description

### 3.1 Objective:

The objective of this project is to develop a comprehensive Software Requirements Specification (SRS) document for a mobile app designed to automate university laundry management system. This involves employing multiple methodologies for requirement gathering, creating preliminary design artifacts, and organizing the collected data in a systematic manner.

### 3.2 Our approach:

This project entails the creation of an extensive Software Requirements Specification (SRS) document that provides a clear and detailed outline of the functional and non-functional requirements for a mobile app aimed at automating university laundry system. The document will include a retrospective of the requirement gathering process, showcasing the methodologies used, the interviews conducted, and the personas developed. Additionally, it will feature user stories, use case diagram, data flow diagram, wireframe and initial product backlog to provide a comprehensive view of the app's design and functionality.

### 3.3 Key components:

- Retrospective on Interviews:
  - **Objective** - To gather insights into the needs, preferences, and challenges faced by various stakeholders.
  - **Interview** - Detailed interviews with students, staff, and administrators to understand their perspectives and requirements.
  - **Findings** - Summarized insights from interviews highlighting key pain points and suggestions for improvements.
- Personas:
  - Development of detailed personas representing typical users of the app, including their demographics, goals, frustrations, and current situations.
- User stories:
  - Creation of user stories to capture specific functionalities required by different users. Each user story will be structured to ensure it is independent, negotiable, valuable, estimable, small, and testable.

- User Case Diagram:
  - Visual representation of the interactions between users and the system, illustrating how different user roles will engage with the app.
- Data Flow Diagram:
  - Detailed diagrams showing the flow of data within the system, depicting how information is processed and transferred between various components.
- Wireframes:
  - Lo-fi wireframe design artifacts that outline the user interface and layout of the mobile app. These wireframes will provide a visual representation of the app's structure and user experience.
- Initial Product Backlog:
  - The initial product backlog outlines the key features and functionalities required for the development of the mobile app designed to automate the university laundry system. Each item represents a specific component or aspect of the app that needs to be developed to ensure a comprehensive and user-friendly system.

## 4 Retrospective on interviews

### 4.1 Interviewee - Nafisa Tabassum Ava

**role:** student

**Objective of the Interview:** The primary objective of the interview was to gather insights into the needs, preferences, and challenges faced by Nafisa Tabassum Ava, a final-year student of the EEE department at IUT, regarding the laundry management system.

#### **System Functionality:**

##### Walkthrough:

- Nafisa uses the laundry management system biweekly, depending on the amount of clothes, and monthly for blankets and pillowcases.

##### Frequency of the Work:

- The laundry is used biweekly for regular clothes and monthly for larger items like blankets and pillowcases.

#### **User preferences:**

##### What Nafisa likes the most about the current laundry system:

- The system is self-sufficient and simple.
- No extra protocol is required, making it user-friendly.
- Services are punctual and reasonably priced.
- The laundry efficiently performs its job.

##### Feature Suggestions:

- Nafisa suggested features such as labeling clothes for specific users and an alert system for completed or unavailable services.

#### **Pain Points:**

##### Challenges and roadblocks:

- Nafisa is often unaware if the laundry is open beforehand.
- Clothes are washed together without any labels for specific users, posing a risk of skin diseases.
- She faced difficulties in finding specific clothes, sometimes needing to return the next day.

#### **Suggestions:**

##### Improvements and Workflow Enhancements (Non-Functional):

- After washing, clothes should be sent back to the dorm with specific labels, room numbers, or contact information.
- An alert system should be introduced to inform users when the wash is complete or if the service is unavailable.
- The laundry service could introduce new services and adopt a more formal approach for better user experience.

## 4.2 Interviewee - Shakil Ahmed

**role:** staff

**Objective of the Interview:** The primary objective of the interview was to gather insights on the operational challenges and potential areas for improvement in the laundry management system from Shakil Ahmed, a staff member involved in hands-on tasks such as cleaning, drying, ironing, and setting matching. Shakil Ahmed was chosen for his practical experience and understanding of the day-to-day activities in the laundry. With 4 to 5 years of experience in laundry operations, his role involves physical tasks such as cleaning clothes, drying, ironing, and matching sets. The interview was scheduled at a convenient time for Mr. Ahmed, ensuring an uninterrupted session. It was conducted face-to-face to facilitate better communication and understanding, and notes were taken to capture key points discussed.

### **System Functionality:**

Walkthrough:

- Shakil Ahmed's job involves cleaning, drying, ironing, and setting matching for clothes in the laundry

Frequency of the Work:

- Shakil performs these tasks daily as part of his routine laundry operations.

### **User preferences:**

What Shakil likes the most about the current laundry system:

- Shakil appreciates the manual system for its simplicity and adequacy in handling physical tasks without the need for mobile applications.
- He believes the current service offerings are comprehensive and efficient for the tasks performed.

Feature Suggestions:

- Shakil suggested integrating a digital system for ordering inventory products to streamline the process and save time.

### **Pain Points:**

Challenges and roadblocks:

- A significant pain point for Shakil is the time spent on ordering inventory products such as detergents and brushes.
- He highlighted the need for improved communication between staff and management, especially regarding inventory needs.

### **Suggestions:**

Improvements and Workflow Enhancements (Non-Functional):

- Implementing an integrated system for ordering inventory supplies could save time and enhance efficiency.
- Enhancing communication channels between staff and management could improve operational efficiency.
- Although Shakil is comfortable with the manual system, he is open to using technology if it simplifies certain aspects of his work, particularly ordering supplies.

Operational insights:

- The manual system is adequate for physical tasks but there is room for improvement in specific areas.
- An inventory management feature within the digital system would allow staff to order supplies more efficiently, saving time and ensuring they have the necessary materials to perform their tasks effectively.

### 4.3 Interviewee - Shaidul Alam

**role:** staff

**Objective of the Interview:** The primary objective of the interview was to gather insights on the administration and operational challenges of the laundry management system from the perspective of Shaidul Alam, an experienced admin. This involved understanding his needs, preferences, and challenges. Shaidul Alam was chosen for his extensive knowledge and hands-on experience in laundry management, with 37 years in the industry. His role includes administration, cloth receiving, and drying, making him a key stakeholder. The interview was scheduled at a convenient time for Mr. Alam, ensuring an uninterrupted session. It was conducted face-to-face to facilitate better communication and understanding, and notes were taken to capture key points discussed.

#### **System Functionality:**

Walkthrough:

- Mr. Alam's job involves overseeing administration, receiving clothes, and drying them.

Frequency of the Work:

- Mr. Alam manages these tasks daily as part of the laundry operations.

#### **User preferences:**

What Mr. Alam likes the most about the current laundry system:

- Mr. Alam relies on his manually created system for managing laundry operations.
- He values the simplicity and control his manual system provides.

Feature Suggestions:

- Despite his comfort with the manual system, Mr. Alam acknowledged the potential benefits of integrating digital solutions to enhance efficiency.

#### **Pain Points:**

Challenges and roadblocks:

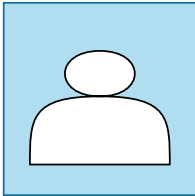
- A major pain point is the drying of clothes under the open sky, which becomes problematic during the rainy season, causing operational delays and inefficiencies.
- There is a need for improved communication between stakeholders to enhance service delivery and customer satisfaction.

#### **Suggestions:**

Improvements and Workflow Enhancements (Non-Functional):

- Implementing a digital solution for managing laundry operations could enhance efficiency and cope with the evolving digital landscape.
- An improved communication system between stakeholders could lead to better service delivery and customer satisfaction.
- Developing a covered or alternative drying solution to mitigate the impact of the rainy season on operations.

## 5 Personas



"Efficiency and sustainability are key to managing my busy life."

**Nabila Binte Karim**

### Demographics

Age: 23

Gender: Female

Occupation: Final-year student

Education: Electrical and Electronic Engineering (EEE) at IUT

Location: On-campus dormitory

Income Level: Dependent on family support

### Goals:

- Ensuring all laundry is cleaned and processed efficiently.
- Communicating effectively with coworkers and customers, despite language barriers.
- Maintaining high standards of cleanliness and hygiene.
- Learning and adapting to new processes and technologies in the workplace.
- Improving job performance through accessible training materials.

### Frustrations:

- Having difficulty finding free machines during peak hours.
- Having limited eco-friendly detergents and environmental concerns.
- Facing problems with machine status and notifications.
- Dealing with high cost of university laundry services on a student budget.

### Current Situation:

Nabila is currently living in an on-campus dormitory that has a shared laundry room. The room has a set of washers and dryers that are frequently used by many students, leading to long wait times. She uses a mobile app provided by the university to check machine availability, but the app is not always reliable. Nabila tries to do her laundry during off-peak hours to avoid the rush but often finds herself compromising her schedule due to the inconvenience. Despite her best efforts to live sustainably, she feels limited by the options available in the university's laundry system.





"Every delay and every complaint is a learning opportunity. My goal is to turn these into improvements."

**Thamidul Islam**

### **Demographics**

Age: 55

Gender: Male

Occupation: Laundry manager

Location: On-campus staff quarters

Income Level: Mid

### **Goals:**

- Ensuring smooth operation of the laundry system.
- Providing excellent customer services to all the clients.
- Maintaining high standards of cleanliness and order.
- Increasing efficiency and turnaround time for laundry services.
- Implementing user friendly technology solutions.

### **Frustrations:**

- Having difficulty understanding and adapting to new technology.
- Seeing inconsistent performance of laundry equipment.
- Facing delays in processing orders due to outdated systems.
- Dealing with customer complaints about delays.

### **Current Situation:**

Thamidul Islam is responsible for ensuring the smooth operation of the laundry system at his workplace. His job includes providing excellent customer service, maintaining cleanliness and order, increasing efficiency, and implementing user-friendly technology solutions. He is dedicated to improving the laundry management system, focusing on customer service and operational efficiency. However, he faces challenges with outdated technology and equipment, which cause delays and customer dissatisfaction. His goal is to learn from these issues and implement improvements, but he struggles with adapting to new technological solutions.



**Rasel Karim**

"The only place where success comes before work is in the dictionary."

### Demographics

Age:35

Gender: Male

Occupation: Laundry system staff

Location: On-campus staff quarters

Income Level: Mid

### Goals:

- Ensuring laundry is cleaned and processed efficiently.
- Communicating effectively with customers and co-workers, despite language barriers.
- Learning and adapting to new processes and technologies in the workplace.
- Improving job performances through accessible training materials.

### Frustrations:

- Having difficulty understanding instructions and feedbacks due to language barrier.
- Having limited access to training materials in native tongue.
- Miscommunication with customers leading to errors.
- Feeling isolated in English dominant environment.

### Current Situation:

Rasel Karim works as a staff member in the laundry system. His responsibilities include ensuring that laundry is cleaned and processed efficiently. He also needs to communicate effectively with customers and coworkers, despite facing language barriers. He is committed to performing his duties efficiently and improving his job performance. However, he faces significant challenges due to language barriers, which affect his ability to understand instructions, communicate with customers, and access training materials. This leads to errors and a feeling of isolation in an English-dominant environment.

## 6 user Stories

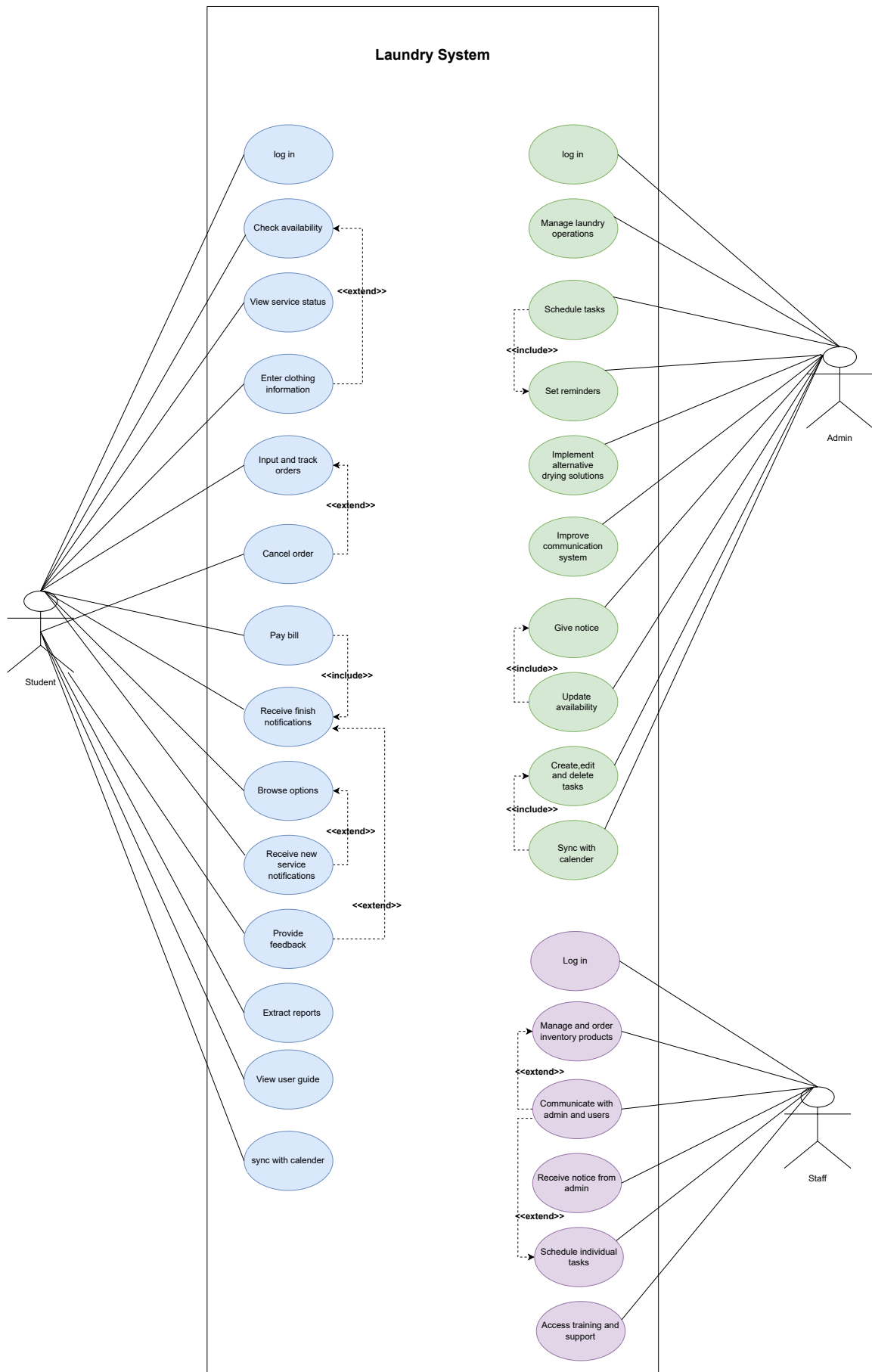
- As an admin,I want to manage laundry operations through a digital system,so that I can enhance efficiency and have better control over the processes.
  - **Independent:**This story is self-contained and can be implemented without depending on other stories.
  - **Negotiable:**The specifics of features (e.g., notifications, reporting) can be discussed and adjusted as needed.
  - **Valuable:**It directly addresses the need for enhanced efficiency and control over laundry operations.
  - **Estimable:**The scope and complexity are clear, allowing accurate estimation of effort.
  - **Small:**It is focused on implementing a digital system, which is a manageable portion of the overall project.
  - **Testable:**Acceptance criteria provide clear conditions for verifying completion (e.g., admin can log in, track orders).
- As an admin,I want an alternative drying solution to dry clothes efficiently even during the rainy season,so that I can avoid operational delays and inefficiencies caused by weather conditions.
  - **Independent:**The drying solution can be implemented separately from other digital features.
  - **Negotiable:** Design and specifications of the covered area can be adjusted based on constraints and needs.
  - **Valuable:**It addresses a significant pain point (weather impact on drying), directly improving operational efficiency.
  - **Estimable:**The effort required to design and implement a covered drying area is clear.
  - **Small:** It focuses specifically on the drying solution, making it a manageable part of the project.
  - **Testable:**Success can be measured by verifying the covered area functions as required and handles the laundry volume.
- As an admin,I want an improved communication system to enhance collaboration between stakeholders,so that we can deliver better service and increase customer satisfaction.
  - **Independent:**This communication system can be developed and implemented on its own.
  - **Negotiable:** Features like group messaging and log keeping can be discussed and refined.
  - **Valuable:**It enhances collaboration and service delivery, addressing identified communication challenges.
  - **Estimable:**The complexity and effort required to build a communication system are known.
  - **Small:**It targets a specific aspect (communication) without being overly broad.
  - **Testable:**Completion is verifiable through acceptance criteria (e.g., messaging, notifications).
- As an admin,I want to schedule tasks and set reminders within the digital system,so that I can manage my daily tasks more efficiently and avoid missing important deadlines.
  - **Independent:**This feature can be developed separately from other functionalities.
  - **Negotiable:** Details such as task list view options and reminder settings can be adjusted.
  - **Valuable:** It improves daily task management and efficiency for the admin.
  - **Estimable:**The scope is clear, allowing for accurate estimation.

- **Small:**The story is focused on task scheduling and reminders, a single aspect of functionality.
- **Testable:**It is testable through acceptance criteria like creating, editing, deleting tasks, and reminders.
- As an admin,I want to generate performance reports and analytics on laundry operations,so that I can identify areas for improvement and make data-driven decisions.
  - **Independent:**Reporting and analytics can be developed independently of other features.
  - **Negotiable:** The specifics of KPIs and report formats can be discussed and refined.
  - **Valuable:**Provides insights for data-driven decisions, addressing the need for performance evaluation.
  - **Estimable:**The effort to create customizable reports and analytics is clear.
  - **Small:** It is focused specifically on reporting and analytics, making it manageable.
  - **Testable:**Verification can be done through acceptance criteria (e.g., customizable reports).
- As a staff member,I want to order inventory products through a digital system,so that I can save time and streamline the process of ordering supplies.
  - **Independent:**This story can be implemented without relying on other stories.
  - **Negotiable:**Specific features and product listings can be adjusted.
  - **Valuable:**Directly addresses the pain point of time spent on inventory orders.
  - **Estimable:**The scope and complexity are clear, allowing accurate estimation of effort.
  - **Small:**Focused on a specific feature, making it manageable.
  - **Testable:**Clear acceptance criteria for verifying completion (e.g., secure login, order placement).
- As a staff member,I want to communicate my inventory needs to management more efficiently,so that operational efficiency is improved through better communication.
  - **Independent:**This can be developed and implemented on its own.
  - **Negotiable:**Features like notifications and logging can be refined.
  - **Valuable:**Enhances communication, addressing a significant operational challenge.
  - **Estimable:**The effort required to build a communication system is known.
  - **Small:**Targets a specific aspect (communication) without being overly broad.
  - **Testable:**It is testable through acceptance criteria (e.g., messaging, notifications).
- As a staff member,I want to receive notifications when inventory levels are low,so that I can ensure we always have the necessary supplies to perform tasks effectively.
  - **Independent:**This feature can be implemented separately from other functionalities.
  - **Negotiable:**Details of notification preferences and triggers can be discussed.
  - **Valuable:**Ensures uninterrupted operations by maintaining necessary inventory levels.
  - **Estimable:**The scope is clear, allowing for accurate estimation.
  - **Small:**Focused on a specific aspect (notifications) making it manageable.
  - **Testable:**Verification through acceptance criteria like real-time monitoring and notifications.
- As a staff member,I want to schedule tasks related to inventory management within the digital system,so that I can manage inventory tasks more efficiently and avoid missing important deadlines.
  - **Independent:**This feature can be developed separately from other functionalities.
  - **Negotiable:**Details of task scheduling and reminders can be refined.

- **Valuable:**Improves daily task management related to inventory.
- **Estimable:**The scope is clear, allowing for accurate estimation.
- **Small:**Focused on a specific aspect (task scheduling) making it manageable.
- **Testable:**Verification through acceptance criteria like task creation and reminders.
- As a staff member,I want access to training and support resources within the digital inventory system,so that I can efficiently use the system and resolve any issues quickly.
  - **Independent:**This feature can be implemented without relying on other stories.
  - **Negotiable:**Specific training materials and support features can be adjusted.
  - **Valuable:**Ensures staff can effectively use the digital system.
  - **Estimable:**The effort to create training and support resources is known.
  - **Small:**Focused on a specific aspect (training and support) making it manageable.
  - **Testable:** Verification through acceptance criteria like access to guides and support ticketing.
- As a student,I want to receive alerts when my laundry is complete or if the service is unavailable,so that I can plan my schedule better and avoid unnecessary trips.
  - **Independent:**This feature can be implemented without relying on other stories.
  - **Negotiable:**Specific details of notification methods and configurations can be adjusted.
  - **Valuable:**Directly addresses the pain point of not knowing when laundry is ready.
  - **Estimable:**The scope and complexity are clear, allowing accurate estimation of effort.
  - **Small:**Focused on a specific feature, making it manageable.
  - **Testable:**Clear acceptance criteria for verifying completion (e.g., notification sent).
- As a student,I want my clothes to be labeled with my specific information,so that I can avoid mix-ups and reduce the risk of skin diseases.
  - **Independent:**This feature can be developed separately from other functionalities.
  - **Negotiable:**Details of labeling (e.g., format, attachment method) can be refined.
  - **Valuable:**Prevents mix-ups and addresses health concerns.
  - **Estimable:**The effort to implement a labeling system is clear.
  - **Small:**Focused on a specific aspect (labeling) making it manageable.
  - **Testable:**Verification through acceptance criteria like label durability and tracking.
- As a student,I want to check if the laundry service is available before I go,so that I can avoid wasted trips when the laundry is closed.
  - **Independent:**This feature can be developed separately from other functionalities.
  - **Negotiable:** Details of how availability is displayed can be adjusted.
  - **Valuable:**Reduces wasted trips and improves user convenience.
  - **Estimable:**The effort to implement real-time status updates is known.
  - **Small:**Focused on a specific feature (availability checking) making it manageable.
  - **Testable:**Verification through acceptance criteria like real-time updates and display.
- As a student,I want to be informed about new services offered by the laundry,so that I can take advantage of additional services that may be beneficial.
  - **Independent:** This feature can be developed separately from other functionalities.
  - **Negotiable:**Details of notification methods and configurations can be refined.

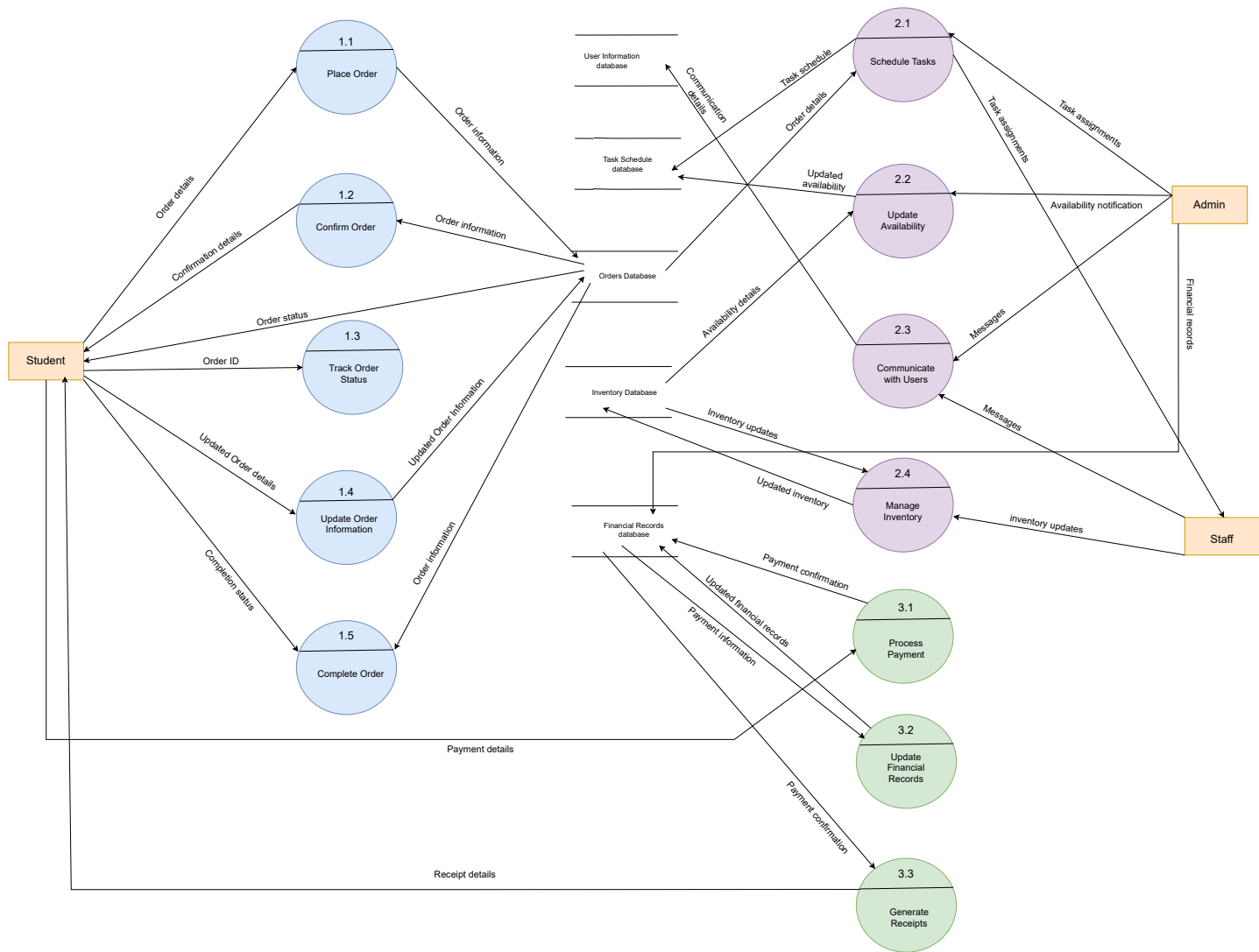
- **Valuable:** Keeps users informed and enhances user experience.
  - **Estimable:** The effort to implement new service notifications is clear.
  - **Small:** Focused on a specific aspect (notifications) making it manageable.
  - **Testable:** Verification through acceptance criteria like notification sent and received.
- As a student, I want the laundry service to adopt a more formal approach for better user experience, so that I can enjoy a more professional and reliable service.
    - **Independent:** This feature can be developed separately from other functionalities.
    - **Negotiable:** Details of the formal approach and feedback mechanism can be adjusted.
    - **Valuable:** Enhances overall user experience and satisfaction.
    - **Estimable:** The effort to implement a formal approach is known.
    - **Small:** Focused on a specific aspect (formal approach) making it manageable.
    - **Testable:** Verification through acceptance criteria like feedback mechanism and standardized protocol.

## 7 Use Case Diagram



## 8 Data Flow Diagram





## 9 Wireframes

Campus Clean

Sign in

Student ID:

Password:

Forgot Password

Don't have an account?

Sign up

OR

Continue with Google

Admin sign in

Staff sign in

~~~~~  
~~~~~  
~~~~~

Student's dashboard

Profile

<

>

Our Services

Fill out a request form

Sync calender

Schedule

Your records

Give a feedback

Noticeboard

Settings

Name:~~~~~  
Student ID:~~~~~

Orders:

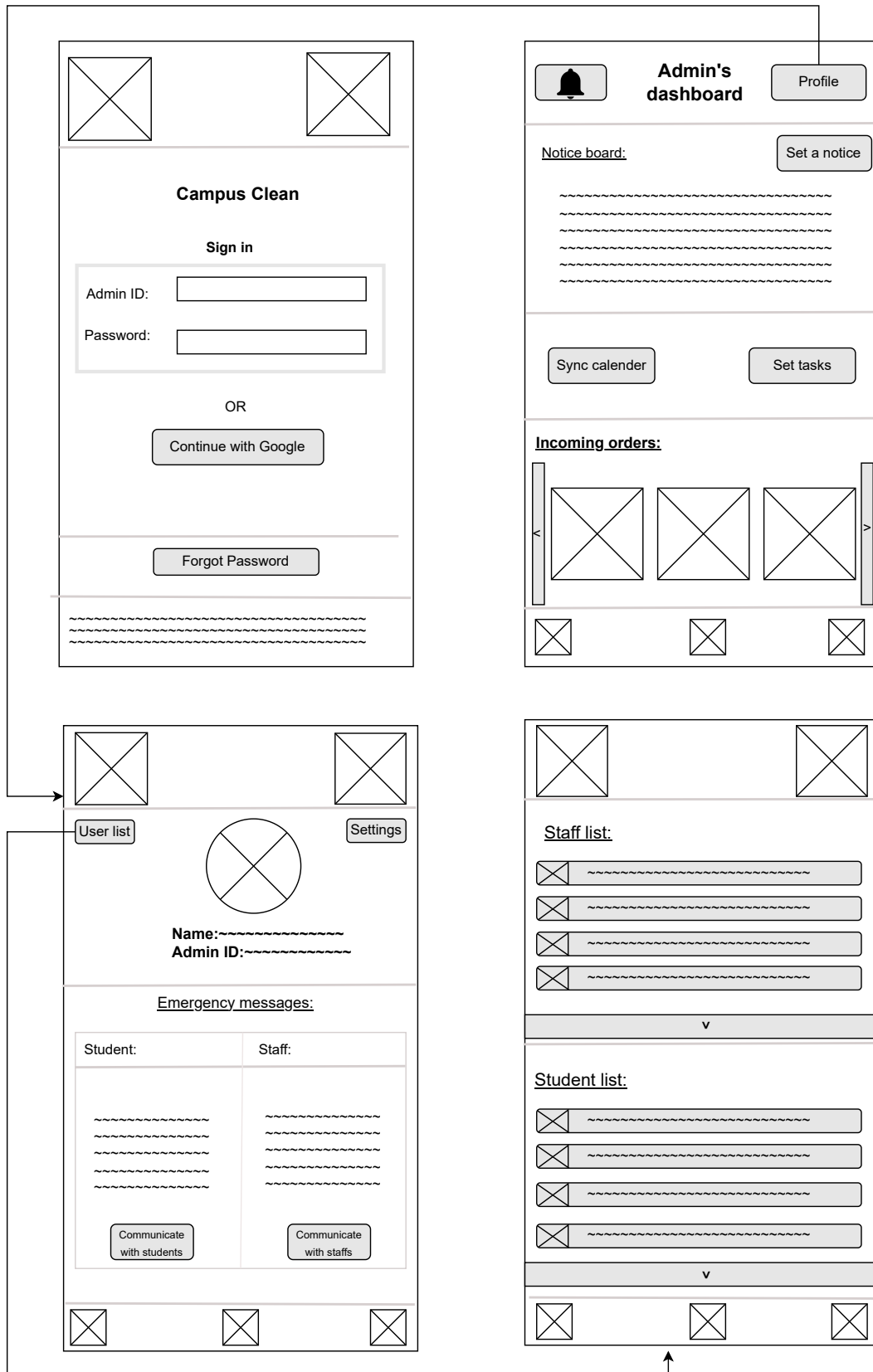
~~~~~  
~~~~~  
~~~~~  
~~~~~  
~~~~~

Pending orders:

~~~~~  
~~~~~  
~~~~~  
~~~~~

Emergency call

#Student page



#Admin page

## Campus Clean

Sign in

Staff ID:

Password:

Don't have an account?

Sign up

OR

Continue with Google

---

Forgot Password

~~~~~

~~~~~

~~~~~

Staff's dashboard

Profile

---

Profile:

~~~~~

~~~~~

~~~~~

~~~~~

Logout

---

pending task

completed task

---

**Assigned orders:**

<

>

---

communicate with Admin

Calendar

Emergency contact

### Task Detail

Student Name:~~~~~

Order ID:~~~~~

Items:~~~~~

precaution:~~~~~

Settings

---

Update the status

| Order Details:                                                                       | Status:                                                         |
|--------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| Order Date:~~~~~<br>Completion Date:~~~~~<br>Total Items:~~~~~<br>Instructions:~~~~~ | <div>Collected</div> <div>In-Process</div> <div>Completed</div> |
| <div>Contact Student</div>                                                           | <div>Update Status</div>                                        |

Checklist

#Staff page

Settings

Profile Settings:

Name:~~~~~

Email:~~~~~

Phn Number:~~~~~

Current Password:~~~~~

New Password:~~~~~

Confirm new password:~~~

Role:~~~~~

Update Profile  
Picture

Update the status:

Email Notification:

>

SMS Notification:

>

Push Notification:

>

Order Updates:

>

Message Alerts:

>

Save Changes

#Settings page

## 10 Initial Product Backlog

| User Story                                                                                                                                                                                          | All Features                          | Bugs and Fixes                   | Tools Needed                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|----------------------------------|--------------------------------------------------------------------------------------------|
| As an admin, I want to manage laundry operations through a digital system, so that I can enhance efficiency and have better control over the processes.                                             | Digital System for Laundry Operations | System crashes during peak times | CRUD , User Authentication, Authorization, API Development, Responsive Design              |
| As an admin, I want an alternative drying solution to dry clothes efficiently even during the rainy season, so that I can avoid operational delays and inefficiencies caused by weather conditions. | Covered Drying Area                   | Delay in setting up covered area | Project Management Tools, Construction Logistics                                           |
| As an admin, I want an improved communication system to enhance collaboration between stakeholders, so that we can deliver better service and increase customer satisfaction.                       | Enhanced Communication System         | Messages not delivering          | Real-time Messaging, WebSockets, Notification Systems, REST API, User Authentication       |
| As an admin, I want to schedule tasks and set reminders within the digital system, so that I can manage my daily tasks more efficiently and avoid missing important deadlines.                      | Task Scheduling and Reminders         | Reminders not triggering         | Task Scheduling, Notification Systems, Calendar Integration, CRUD operations               |
| As an admin, I want to generate performance reports and analytics on laundry operations, so that I can identify areas for improvement and make data-driven decisions.                               | Performance Reports and Analytics     | Inaccurate data reporting        | Data Analytics, Report Generation, KPI Tracking, Data Visualization Tools                  |
| As a staff member, I want to order inventory products through a digital system, so that I can save time and streamline the process of ordering supplies.                                            | Digital Inventory Ordering            | Inventory orders not processing  | Inventory Management, E-commerce Integration, Payment Processing, Notification Systems     |
| As a staff member, I want to communicate my inventory needs to management more efficiently, so that operational efficiency is improved through better communication.                                | Inventory Communication System        | Messages not logging             | Messaging Protocols, Notification Systems, REST API, User Authentication                   |
| As a staff member, I want to receive notifications when inventory levels are low, so that I can ensure we always have the necessary supplies to perform tasks effectively.                          | Low Inventory Notifications           | Notifications not triggering     | Real-time Monitoring, Notification Systems, Inventory Management                           |
| As a staff member, I want to schedule tasks related to inventory management within the digital system, so that I can manage inventory tasks more efficiently and avoid missing important deadlines  | Inventory Task Scheduling             | Scheduling conflicts             | Task Scheduling, Notification Systems, Calendar Integration, CRUD operations               |
| As a staff member, I want access to training and support resources within the digital inventory system, so that I can efficiently use the system and resolve any issues quickly.                    | Training and Support Resources        | Training materials not loading   | Learning Management System (LMS) Integration, User Support, Documentation, CRUD operations |
| As a student, I want to receive alerts when my laundry is complete or if the service is unavailable, so that I can plan my schedule better and avoid unnecessary trips.                             | Laundry Completion Alerts             | Alerts not sent                  | Push Notifications, Real-time Updates, User Authentication                                 |
| As a student, I want my clothes to be labeled with my specific information, so that I can avoid mix-ups and reduce the risk of skin diseases.                                                       | Personalized Clothing Labels          | Labels not printing              | Label Printing Technology, User Identification, Barcode/QR Code Integration                |
| As a student, I want to check if the laundry service is available before I go, so that I can avoid wasted trips when the laundry is closed.                                                         | Service Availability Status           | Status not updating              | Real-time Status Updates, API Integration, User Authentication                             |
| As a student, I want to be informed about new services offered by the laundry, so that I can take advantage of additional services that may be beneficial.                                          | New Service Notifications             | Notifications not sent           | Notification Systems, User Subscription Management, Marketing Tools                        |