**Functional Requirements:**

Process-oriented:

1. **User Registration**:
   * The system must allow new users to register.
   * The system must validate that a user with the same username does not already exist in the database
2. **Assignment Management**:
   * The system must allow users to view, add, modify, and delete assignments.
   * The system should provide notifications for upcoming assignment deadlines.
3. **Resource Recommendation**:
   * Content moderators are to curate personalized study resources based on user preferences and uploaded information.
4. **Existing User Login**:
   * The system must allow existing users to login and manage their resources
   * The system should have a password recovery process for users who forget their credentials.

Information-oriented:

1. **User Profile Data**:
   * The system must retain user profile information, including academic details and user preferences.
2. **Assignment Data**:
   * The system must store details about assignments, including titles, descriptions, due dates, and course associations.
3. **Study Resources Data**:
   * The system must maintain a repository of study resources, categorized by topics and user ratings.
4. **Login Data**:
   * The system must maintain records of user logon histories.

**Non-functional Requirements:**

Operational:

1. **Device Compatibility**:
   * The system will be accessible via web browsers on desktop and mobile devices.
   * The system should be responsive, adjusting the display based on the device screen size.
2. **Integration**:
   * The system should have the capability to integrate with established Learning Management Systems.

Performance:

1. **Load Time**:
   * Interaction between the user and the system should not exceed 3 seconds.
2. **Scalability**:
   * The system should support the projected user growth, accommodating up to 50,000 users by Year 3.
3. **Uptime**:
   * The system should be available for use 24 hours per day, 365 days per year.

Security:

1. **Data Encryption**:
   * The system should encrypt sensitive user data, such as passwords and payment details.
2. **Access Control**:
   * Only authorized users can modify or delete their own data.
   * Administrators should have higher-level access to manage and moderate content.
3. **Protection**:
   * The system must have security measures to guard against cyber threats, including viruses, hacks, and data breaches.

Cultural and Political:

1. **Privacy Compliance**:
   * The system must comply with data privacy regulations, ensuring user data is not misused.
2. **Language and Accessibility**:
   * The system should be available in English initially but should be designed with the flexibility to include other languages in the future.
   * The design must be inclusive, ensuring accessibility for users with disabilities.
3. **Ethical Considerations**:
   * Any data monetization or sharing initiatives must be transparent, with clear communication to users and obtaining their consent where necessary.

**Observation Notes on the As-Is System**:

1. **Manual Data Entry**: Many students seem to manually enter and manage their assignments, often using traditional methods like notebooks or basic calendar apps. This can lead to errors, omissions, and missed deadlines.
2. **Fragmented Resources**: Study resources are scattered across multiple platforms such as library websites, course portals, and external websites. Students often spend a significant amount of time looking for appropriate study materials.
3. **Lack of Personalization**: Current systems do not offer personalized study recommendations. Each student is treated uniformly, regardless of their learning pace and style.
4. **Security Concerns**: There have been instances of students forgetting to log out from public computers, potentially compromising their personal data.
5. **Inconsistent User Interfaces**: Different courses or departments seem to use varied platforms, each with its unique interface, causing confusion and requiring time to adapt.
6. **No Centralized Notification System**: Students often miss important announcements because they are posted on different platforms or communicated through varied channels (e.g., emails, portal announcements, classroom announcements).
7. **Limited Accessibility**: Some of the current platforms are not fully accessible, causing difficulties for students with disabilities.
8. **Reliability Issues**: There have been reports of certain platforms crashing during peak times, especially during exam periods when students are accessing materials en masse.
9. **Feedback Delays**: Students have mentioned that they sometimes wait weeks to receive feedback on assignments or exams, making it challenging to adapt and improve in subsequent tasks.
10. **Limited Collaboration Tools**: Current systems don't have robust tools for students to collaborate on projects or study groups efficiently.
11. **Lack of Integration**: The current system doesn't integrate well with other commonly used platforms by students, such as email clients, cloud storage, or third-party academic resources.