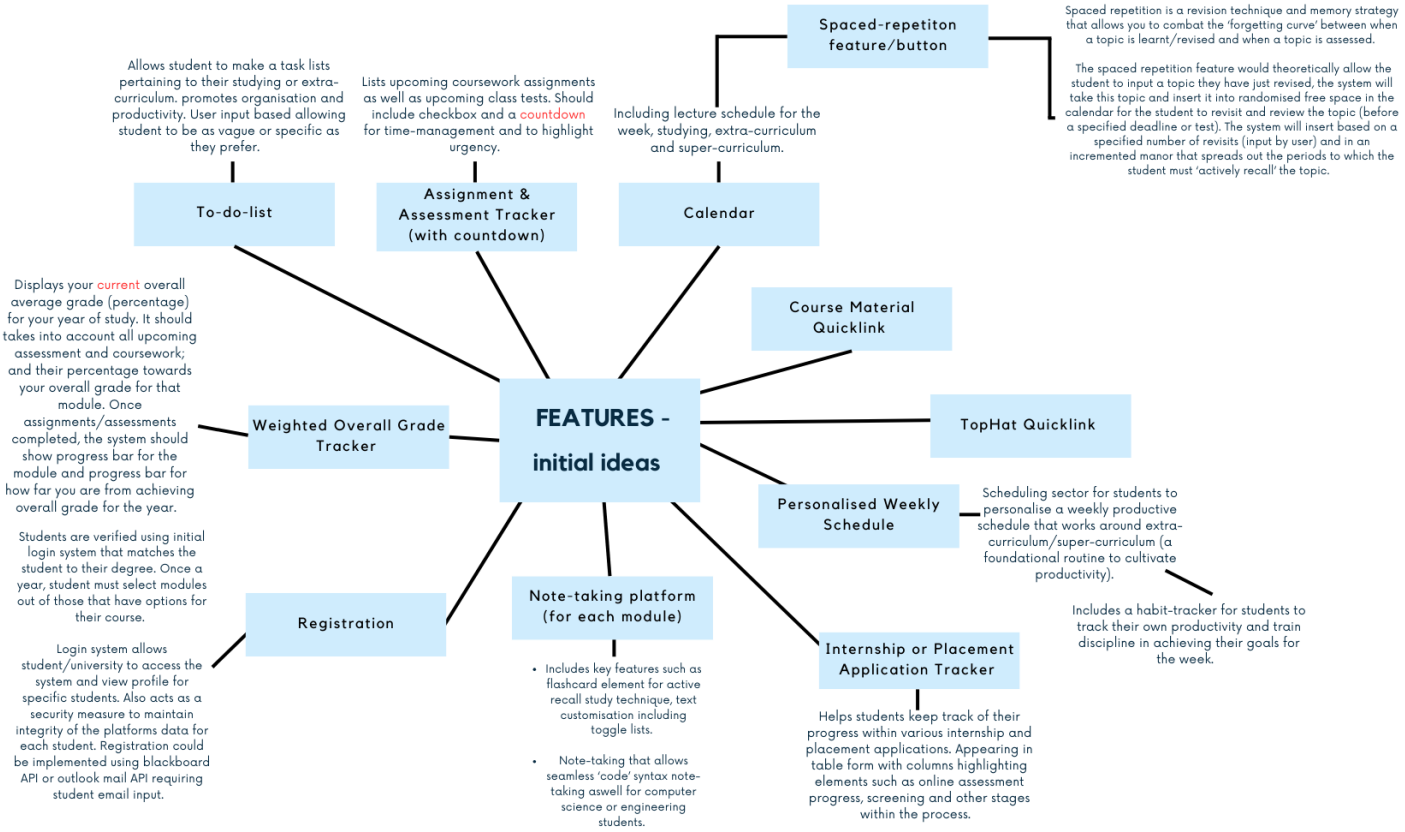
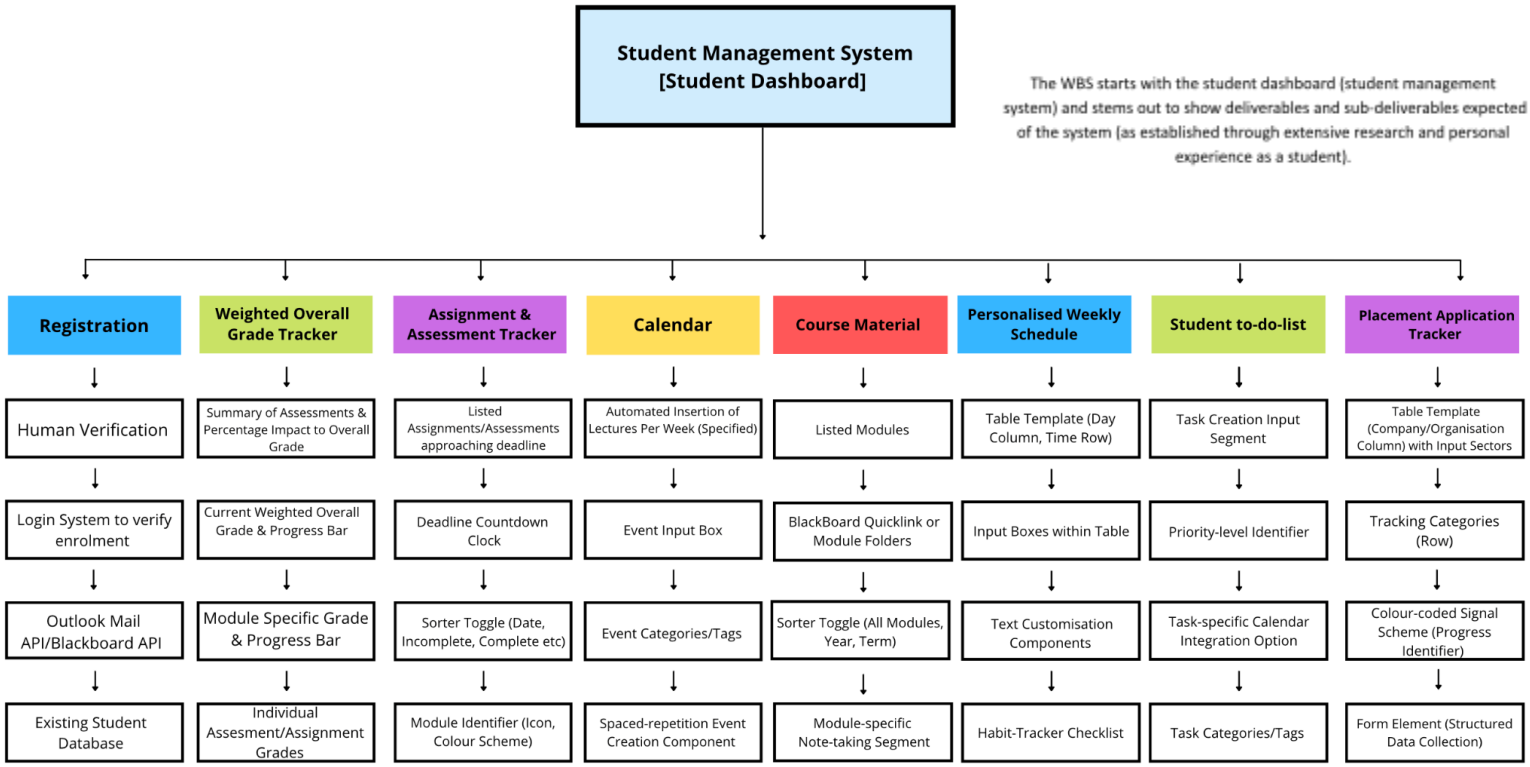
Student Management System - Student Dashboard - Ayomide Balogun



A detailing on the features that reflect my interpretation of the student management system and what I assume would be optimal and beneficial for the system. I have chosen to focus on a student management system that mainly showcases a student dashboard; this allows the institution to manage student data whilst
ensuring easy access to important information and resources for students.

Work Breakdown Structure (Deliverables Based)



Task Work Packages (Assigned)

Project Manager : The role of a project manager is to oversee day-to-day tasks required for a project's success. A project manager manages elements such as the timelines and budgets of an information technology project to ensure that implementation runs as smoothly as possible.

Applications Architect : Applications Architects are generally in charge of designing the overall structure and strategy of the software application using high-level architectural design, system integration and defining the blueprint for software applications.

Cloud/Software Applications Engineer : The Cloud/Software Applications Engineer implements and develops specific components or features based on the design (from the applications architect).

Quality Assurance Tester : Responsible for helping to uncover issues within a company's software by testing the functionality and usability of new or existing software before it goes live.

IT Training Consultant : Develop and optimise training programs for organisations to upskill in the use of information technology to meet their objectives or overcome problems.

Work Package Manager : Project Manager

1.1) Consistently record progress made using agile metrics.

1.2) Maintain a log tracking spendings over-time amongst the project budget.

1.3) Alert relevant sectors of the project for over-budget routes/patterns.

1.4) Relate project progress back to relevant stakeholders and clients who anticipate the full development of the system.

1.5) Attain formal permissions to store student information and enrollment information from institutions.

1.6) Organise consistent meetings and checks to track overall/specific project progress and performance.

1.7) Data collection from students/administration to determine preferred features and en-aid software development and planning.

Work Package Manager : Applications Architect

2.1) Establish the most suitable technologies, softwares and frameworks to implement the development of the system.

2.2) Define all wanted integrations between components such as integration between to-do-list user inputs and optional calendar insertion.

2.3) Architect the existing students database required for the registration system to allow platform access to students and administration only.

2.4) Establish potential API incorporations e.g Blackboard API for module contents or Panopto Embed API to embed recorded lecture videos.

2.5) Continuously refine systems architectural design based on (engineers and product manager) feedback.

Work Package Manager : Cloud/Software Applications Engineer

3.1) Implement API's to integrate third-party, beneficial and relevant existing student features such as outlook mail, blackboard module content and a calendar element.

3.2) Maintain technical documentation to uncover implementation progress, allowing for feedback to other teams on the project.

3.3) Implement foundation table feature to be used across both tracker elements and the student-to-do-list; build on coded template based on feature specification(e.g. Architect's design).

3.4) Implement a cloud system to allow students to store and access event/schule inputs from any device. Students/administration should also be able to access trackers and automated module content and more through cloud implementation.

3.5) Assure the dashboard is responsive on many different devices for increased usability.

3.6) Utilise and consider front-end development; Consider CSS and frameworks such as bootstrap studio across the system to allow appealing design that enhances UX. Uplift the countdown clock and trackers by considering front-end development for a clean overall look.

3.7) Implement main dashboard features.

Work Package Manager : Quality Assurance Tester

4.1) Verify security of the login system to maintain integrity of each student and their personal information.

4.2) Test speed and responsiveness of the dashboard across many areas of the platform.

4.3) Test that the deadline countdown clock runs accurately against real time.

4.4) Assure the security of forms requiring user input: placement tracker, calendar, mail form elements.

4.5) Implement validators into the event input sector of the calendar, and placement tracker to ensure correct data is passed into sectors, to promote structured data collection.

4.6) Assess performance response under large amounts of student logins (and administration accesses).

4.7) Implement relevant feedback regarding system quality from end-users and senior management.

Work Package Manager : IT Training Consultant

5.1) Provide learning resources to educate engineers and architects on upcoming technological innovations that could be implemented into the project to increase success and quality.

5.2) Develop training materials between Cloud/Software Applications Engineers and Quality Assurance Testing for consistent quality improvement and increase level of security across the platform.

5.3) Provide mentoring to team-members who are new to particular segments of the development.

5.4) Collect feedback from team members to establish project-relevant areas in need of training resources.

Budgeting

- 1 x Project Manager, salary £85,000 per annum. Seconded to the project on an 80% basis

$85,000 \times 0.8 = £68,000$

- 1 x Applications Architect, salary £60,000 per annum. Seconded to the project on a full-time basis.

$60,000 \times 1.0 = £60,000$

- 2 x Cloud/Software Applications Engineers, both salaries £50,000 per annum. Seconded to the project on a full-time.

$50,000 \times 1.0 = £50,000 \times 2 = £100,000$

- 1 x Quality Assurance Tester, salary £60,000. Seconded to the project on a 75% basis.

$60,000 \times 0.75 = £45,000$

- 1 x IT Training Consultant, salary £40,000 per annum. Seconded to the project on a 30% basis.

$40,000 \times 0.3 = £12,000$

Total staff cost per annum = £285,000

$£285,000 \times 1.5 = £427,500$

Total staff cost per 18-month period = £427,500

$50,000 + 30,000 + 25,000 + (600 \times 10) = £111,000$

Total technical equipment cost = £111,000

$8,000 \times 7 = £56,000$

Total licenses cost = £56,000

Risk Register

Project name: Student Management System - Student Dashboard
Project manager: Rachel Adesola [sample name]

Risk Category: [1] Political; [2] Economical; [3] Social; [4] Technological; [5] Legal; [6] Environmental/Ethical

ID	Date raised	Risk Category	Risk description	*Risk Owner* *Person who will manage the risk.*	Likelihood of the risk occurring	Impact if the risk occurs	Severity *Rating based on impact & likelihood.*	Mitigating action *Actions to mitigate the risk e.g. reduce the likelihood.*	Contingent action *Action to be taken if the risk happens.*	Progress on actions	Status
1	20/11/23	4	Application implementation proves more complex than anticipated. Could involve difficult feature integrations across the development.	Applications Architect	Low	Medium	Low	Ensure the team members allocated to the project possess acceptable skill within qualified field (with demonstrated specialities that match those of project criteria). Continuously refine systems architectural design with Applications Architect. This should include the defining and designing of all wanted integrations between components.	Clear communication between developers and project manager established to highlight complexities and roadblocks met. Feedback relayed to IT Training who provides training materials and resources to en-aid developers in solving the complexities in suitable time.	Software's architecture intricately defined with demonstrating documentation.	Open
2	20/11/23	4	Continuous emerging of previously unidentified implementations required to create all specified features.	Applications Architect	Medium	Medium	Medium	Design process including the intricate breakdown of each feature and reevaluation of the architectural designs. Agile methodologies & meetings incorporated to identify potential spiralling of previously unidentified features.	Hold meetings with relevant team members to redefine sub-features required and highlight previously missed areas of implementation. Incorporate an agile approach that best allows for flexible implementations without disrupting the timeline.	Continuous meeting held to highlight any previously unidentified implementations; no unidentified implementations have occurred.	Open
3	20/11/23	3	Failure to manage end-user expectations.	Project Manager	Low	High	Medium	Engage with stakeholders regularly to confirm expectations are being met. Implement extensive user research to align the student dashboard with needs of students and institution; this includes the use of user feedback.	Select a more accurate feedback loop with end-users. Re-establish main elements restricting expectations from being met. Re-establish end-user expectations through speaking with students and stakeholders.	Regular meetings held with stakeholders, information successfully relayed to full team. Stakeholders satisfied with current progress.	Open
4	21/11/23	2	Changes in the market affecting the project's aim to stay on budget or affecting overall financial workability.	Project Manager	Medium	Medium	Medium	Account for potential market fluctuations where possible within budget.	Clear communication between stakeholders established to discuss adjusting financial plans to realign with market conditions, or alternative due to project no longer having financial workability.	Markets observed for any impacting market fluctuations.	Open
5	23/11/23	2	Losing a key Cloud/Software Applications Engineer during the latter stages of the project.	Project Manager	Low	Medium	Low	Ensure knowledge is preserved in the case of sudden departures of integral team members by briefly cross-training members of the team with progressions made (and implementations used to achieve them).	Assign replacement for lost engineer. Cross-trained team members train replacement engineer on recent progress using any progress logs, general documentations and agile metrics used till this point.	Application architects and Cloud/Software engineers cross-trained weekly on implementation, coding and data models used.	Open
6	23/11/23	2	Inaccurate estimations leading to inability to deliver the software within the planned budget.	Project Manager	Low	Low	Low	Refine budget estimation techniques using historical data within successful and unsuccessful projects (internal and external to the organisation).	Re-evaulate and potentially redefine budget; looking intricately at estimations and their alignments to the market (in terms of availability, demand, quality variation etc). Clear communication between stakeholders established to discuss any adjustments of financial plans.	Log of project spendings kept and continuously reviewed alongside budget.	Open
7	23/11/23	5	Failure to determine all permissions that are mandatory to request before storing confidential student information and allowing institution administrators access to the student dashboard.	Applications Architect	Low	High	Medium	Conduct an audit of data permissions and ensure all required permissions align with data privacy regulations. Establish data access rules for administrators that may use the platform.	Suspend administrator access, identify missing permissions and change access rules or legally pursue and attain permissions required.	Administrators trained on data access protocols.	Open