  
CSE6224  
Software Requirements Engineering  
T2420  
  
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Vision  
A Learning Analytics System that tracks and analyzes student performance, engagement, and learning outcomes across courses. The system should interface with the university's Learning Management System (LMS) to gather data on student interactions, assignment submissions, quiz results, and course participation.

# Scope

This document:

* Data Integration
  + gather data on student interactions, assignment submissions, quiz results, and course participation.
* Analytics and Reporting
  + analyzes student performance, engagement, and learning outcomes across courses
  + provide a real time and historical reports to admin, lecturer and students
* User Interface
  + User-friendly interface for admin, lecturer and students to access and interact.
  + Provide analytics dashboards and reports for educators, highlighting key performance indicators such as student engagement, progress, and areas requiring intervention.
  + Accessible on multiple devices such as desktops, tablets and phones.

# Goals

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| No. | | Section | Content |
| ID | 1.1 | Identifier | G-1 |
| 1.2 | Name | Improved Student Outcomes |
| Management | 2.1 | Authors | Lok Hon Yong, Ivan Lim Zhe Min, Muhammad Ammar Ajwad bin Muhammad  Rushdan |
| Context | 3.1 | Source | Dr Zarina Binti Che Embi |
| Goal Definition | 4.1 | Goal description | Based on the data, it helps to identify areas where students may need additional support. This helps students know their weaknesses and improve overall academic performance. |
| 4.2 | Super-goal | G-1-1: Increases overall academic performance |
| 4.3 | Sub-goals | G-1-1-1: Identify weak areas through data analysis |
| 4.4 | Other goal dependency | Support G-2: Enhance Teaching Effectiveness by providing data for targeted inventions.  Support G-3: Increase Student Engagement by tailoring support to student’s needs. |

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| No. | | Section | Content |
| ID | 1.1 | Identifier | G-2 |
| 1.2 | Name | Enhance Teaching Effectiveness |
| Management | 2.1 | Authors | Lok Hon Yong, Ivan Lim Zhe Min, Muhammad Ammar Ajwad bin Muhammad  Rushdan |
| Context | 3.1 | Source | Dr Zarina Binti Che Embi |
| Goal Definition | 4.1 | Goal description | Provide lecturer with actionable insights to directly inform teaching strategies, class adjustments and targeted interventions that meet students need. |
| 4.2 | Super-goal | G-2-1: Improve teaching strategies and classroom management |
| 4.3 | Sub-goals | G-2-1-1: Analyze student performance data to tailor teaching strategies |
| 4.4 | Other goal dependency | Support G-1: Improve Student Outcomes by refining methods based on identified student needs.  Support G-3: Increase Student Engagement by using effective teaching strategies that encourage participation. |

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| No. | | Section | Content |
| ID | 1.1 | Identifier | G-3 |
| 1.2 | Name | Increase Student Engagement |
| Management | 2.1 | Authors | Lok Hon Yong, Ivan Lim Zhe Min, Muhammad Ammar Ajwad bin Muhammad  Rushdan |
| Context | 3.1 | Source | Dr Zarina Binti Che Embi |
| Goal Definition | 4.1 | Goal description | Monitor and improve student engagement by identifying patterns in LMS interactions and providing recommendations for increasing participation. |
| 4.2 | Super-goal | G-3-1: Enhance student participation and interaction |
| 4.3 | Sub-goals | G-3-1-1: Track LMS usage and provide personalized engagement strategies |
| 4.4 | Other goal dependency | Support G-1: Improve Student Outcomes by increasing engagement in learning activities.  Support G-2: Enhance Teaching Effectiveness by aligning engagement strategies with effective teaching methods. |

# And/Or Goals Trees

