Business Process and ERP

TASK 2 - Report

Group 5

ERP Modules

1. Exam Management

Purpose: The Exam Management module is designed to plan, conduct, and monitor all aspects of student examinations in a university. It ensures fairness, transparency, and efficiency in the examination process.

Key Functions: Scheduling exams, generating question papers, managing registrations, issuing admit cards, assigning invigilators, collecting and grading scripts, handling appeals, and publishing results.

Use Case: A university uses this module to automate the process of semester exams. For example, after students register, the system schedules exams, assigns invigilators, distributes exam papers, collects scripts, and finally publishes results, reducing manual errors and administrative workload.

2. Finance Management

Purpose: The Finance Management module handles the university's financial operations, including budgeting, payments, and reporting. Its goal is to maintain accurate financial records and ensure accountability.

Key Functions: Student fee collection, payroll processing, budget allocation, scholarship and grant management, invoice generation, and financial reporting.

Use Case: When students pay tuition fees, the module records payments, generates receipts, updates student accounts, and integrates with scholarship and financial aid systems. The finance office can also generate monthly or yearly financial reports for auditing and planning purposes.

3. Library Management

Purpose: The Library Management module manages the acquisition, cataloging, circulation, and tracking of library resources. It enhances access to books, journals, and digital content for students and faculty.

Key Functions: Cataloging books, managing check-ins/check-outs, issuing library cards, tracking overdue items, managing reservations, and providing digital resources.

Use Case: Students search the library catalog, borrow books, and return them through this module. Faculty can reserve reference materials or access digital journals, while library staff can track inventory, manage fines, and maintain reports on usage patterns.

Exam Management

Exam Management Business Process Activities

- 1. Start Exam Cycle

    - Actor: Academic

    - Module Description: Initiate the examination process cycle

- 2. Define Exam Policy & Calendar

    - Actor: Academic

    - Module Description: Create exam policies and set calendar dates

- 3. Create Master Exam Schedule

    - Actor: Academic

    - Module Description: Develop comprehensive exam timetable

- 4. Build Course-wise Exam Rosters

    - Actor: Academic

    - Module Description: Generate student lists for each course exam

- 5. Announce Schedule & Procedures

    - Actor: Academic

    - Module Description: Communicate exam details to stakeholders

- 6. Open Exam Registration

  - o Actor: Student Service

  - o Module Description: Enable students to register for exams

- 7. Check Eligibility & Special Accommodations

  - o Actor: Student Service

  - o Module Description: Verify eligibility and arrange special needs

- 8. Student Eligible?

  - o Actor: Student Service

  - o Module Description: Check if student meets exam requirements

- 9. Notify Student & Resolve Issues

  - o Actor: Student Service

  - o Module Description: Inform students and address their concerns

- 10. Prepare Draft Question Papers

  - o Actor: Quality & Evaluation

  - o Module Description: Create initial version of exam questions

- 11. Peer Review & Moderation of QPs

  - o Actor: Quality & Evaluation

  - o Module Description: Review and moderate question papers

- 12. QPs Approved?

  - o Actor: Quality & Evaluation

  - o Module Description: Decision point for question paper approval

- 13. Create Marking Schemes & Exam Packs

- o Actor: Pre-Exam Operations

- o Module Description: Develop marking guidelines and exam packages

- 14. Secure Printing/Digital Packaging

  - o Actor: Pre-Exam Operations

  - o Module Description: Securely print or package exam materials

- 15. Logistics & Chain-of-Custody

  - o Actor: Pre-Exam Operations

  - o Module Description: Manage secure transport of exam materials

- 16. Issue Admit Cards & ID Verification

  - o Actor: Logistics

  - o Module Description: Generate admit cards and verify student IDs

- 17. Prepare Venues & Seating Facilities

  - o Actor: Logistics

  - o Module Description: Set up exam venues and seating arrangements

- 18. Assign & Train Invigilators

  - o Actor: Logistics

  - o Module Description: Allocate and train exam supervisors

- 19. Sync Point

  - o Actor: Logistics

  - o Module Description: Coordination point for parallel activities

- 20. Conduct Pre-exam Checks

  - o Actor: Pre-Exam Operations

- o   Module Description: Perform final venue and equipment checks

- 21. Venue Ready?

  - o   Actor: Pre-Exam Operations

  - o   Module Description: Decision point for venue readiness

- 22. Hold The Exam

  - o   Actor: Pre-Exam Operations

  - o   Module Description: Conduct the actual examination

- 23. Fix Issues

  - o   Actor: Logistics

  - o   Module Description: Resolve any identified problems

- 24. Collect & Secure Answer Scripts

  - o   Actor: Results & Appeals

  - o   Module Description: Gather and secure completed exam papers

- 25. Scan/Digitize Scripts

  - o   Actor: Results & Appeals

  - o   Module Description: Convert answer scripts to digital format

- 26. Marking & Moderation

  - o   Actor: Results & Appeals

  - o   Module Description: Evaluate and moderate exam responses

- 27. Quality Checks & Reconciliation

  - o   Actor: Results & Appeals

  - o   Module Description: Perform quality assurance on marking

- 28. Marks Verified?

  - o Actor: Results & Appeals

  - o Module Description: Decision point for mark verification

- 29. Publish Provisional Results

  - o Actor: Results & Appeals

  - o Module Description: Release preliminary exam results

- 30. Appeals Received?

  - o Actor: Results & Appeals

  - o Module Description: Check if any result appeals submitted

- 31. Process Appeals

  - o Actor: Results & Appeals

  - o Module Description: Handle and review student appeals

- 32. Finalize Results & Archive

  - o Actor: Results & Appeals

  - o Module Description: Complete results and store records

- 33. End Exam Cycle

  - o Actor: Results & Appeals

  - o Module Description: Conclude the examination process

Links

- draw.io link

  - https://viewer.diagrams.net/?tags=%7B%7D&lightbox=1&highlight=0000ff&edit=_blank&layers=1&nav=1&title=Group%2005%20-%20Swimlane.drawio&dark=auto#Uhttps%3A%2F%2Fdrive.google.com%2Fuc%3Fid%3D1XAFISH17MpUqjsD_bFD3nP50da3hyas-%26export%3Ddownload

- drive link

  - https://nsbm365-my.sharepoint.com/:i:/g/personal/tshdsilva_students_nsbm_ac_lk/Ecus57UGMlRlhMM6KW4aBRUB-hfe0vhBBEBbE7lZWAxuwA?e=ZnwPQY

- Image
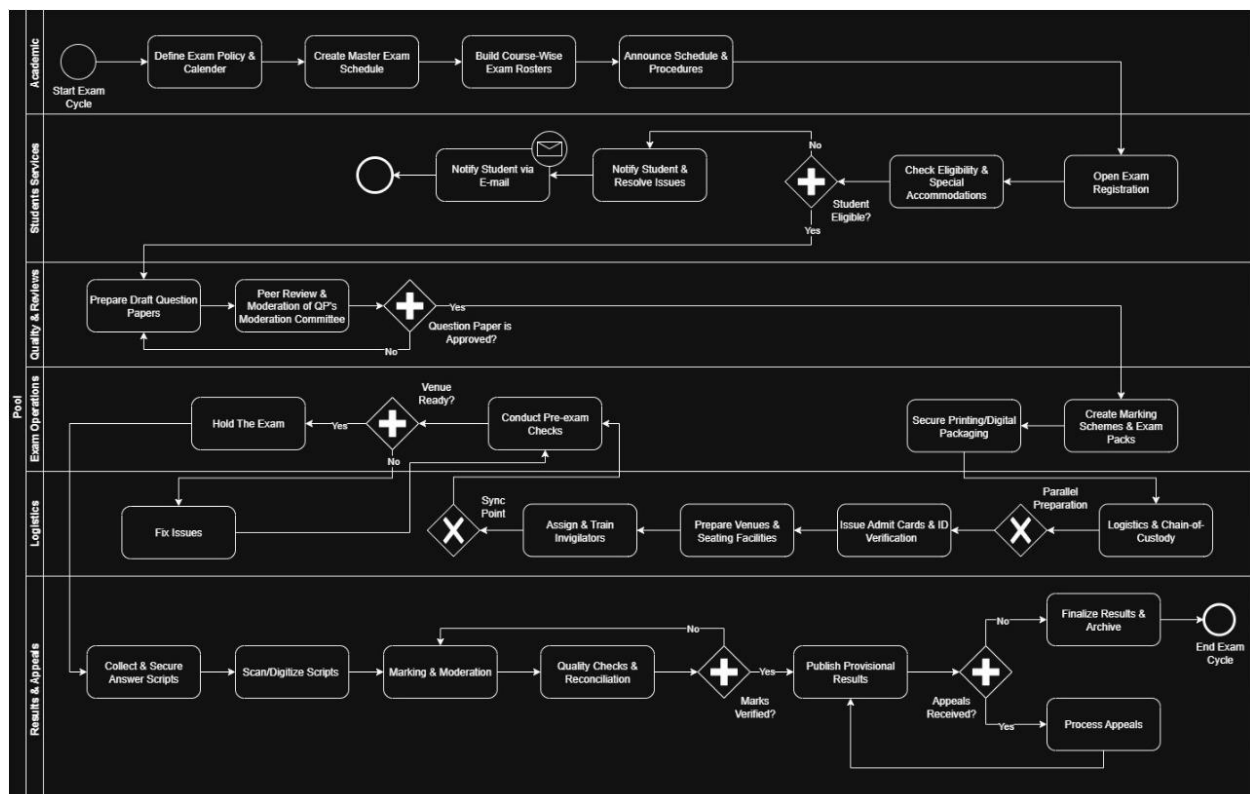
Team Contribution

Student ID	Name
34257	T M A R Thennakoon
34227	D T D Wijerathna
34243	T S H D Silva
34209	L K H Nimanthika
34249	B R M I Sachinthani
32813	M H M Hamdhi
34220	R M P M Bandara
34226	P D M H Jayalath
32610	A B M Lakshan
34247	H G D T Navodya
32777	J D P Jayasiri