Educational Organisations using service now Project Report

- **INTRODUCTION**

1.1 Project Overview

The **Educational Organizations Management System** is developed using the ServiceNow platform to efficiently manage student academic records in educational institutions.

The system automates:
- Total marks calculation
- Percentage calculation
- Pass/Fail status determination

It replaces manual record maintenance with a structured, centralized, and automated digital solution.

1.2 Purpose of the Project

The main objectives of this project are:
- Digitize student academic record management
- Automate academic calculations
- Reduce manual errors
- Improve institutional efficiency
- Provide centralized data storage
- Enable quick report generation

- **2. IDEATION PHASE**

2.1 Problem Statement

Manual record maintenance in educational institutions leads to:
- Calculation errors
- Data duplication
- Time-consuming report preparation
- Lack of centralized access
- Risk of data loss

There is a need for an automated and reliable academic record management system.

2.2 Empathy Map Canvas

Users
- Administrators
- Teachers

User Needs
- Easy marks entry
- Automatic calculations
- Accurate result processing
- Quick access to student records

Pain Points
- Manual calculation errors
- Time-consuming paperwork

- Difficulty in maintaining large records
- Inconsistent reporting

2.3 Brainstorming & Solution Selection
Solutions Considered
1. Excel-based system
2. Custom Web Application
3. ServiceNow Platform

Final Selected Solution
ServiceNow-based application due to:
- Built-in database management
- Workflow automation
- Secure cloud platform
- Rapid application development

- **3. REQUIREMENT ANALYSIS**

3.1 Customer Journey Map
Admin logs in → Creates student record → Enters subject marks →
System automatically calculates total & percentage →
Pass/Fail status generated → Record stored in database → Reports generated.

3.2 Solution Requirements
Functional Requirements
- Student registration form
- Subject-wise marks entry
- Automatic total calculation
- Automatic percentage calculation
- Pass/Fail logic evaluation
- Report generation

Non-Functional Requirements
- Secure access control
- Fast system response
- User-friendly interface
- Data integrity
- Cloud availability

3.3 Data Flow Diagram (DFD)
Admin → ServiceNow Application → Database → Reports
The system processes input marks through Business Rules and stores processed data in
ServiceNow tables.

3.4 Technology Stack

Component	Technology Used
Platform	ServiceNow
Backend Logic	Business Rules
Frontend	Client Scripts
Database	ServiceNow Tables
Reporting	ServiceNow Reports

- **4. PROJECT DESIGN**

4.1 Problem-Solution Fit

The system eliminates manual calculation errors and improves academic data management by automating all core operations.

4.2 Proposed Solution Components
- Student Table (Custom Table Creation)
- Fields: Name, Roll Number, Subject Marks
- Client Scripts for frontend validation
- Business Rules for automatic calculations
- Automated Result Generation Logic
- Report Dashboard

4.3 Solution Architecture

User Interface (Form)

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Client Script (Validation)

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Business Rule (Calculation Logic)

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Database (ServiceNow Table)

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Reports & Dashboard

- **5. PROJECT PLANNING & SCHEDULING**

Phase	Duration
Requirement Gathering	1 Week
Design	1 Week
Development	2 Weeks
Testing	1 Week
Deployment	1 Week
Total Duration	**6 Weeks**

Project methodology followed: Agile approach with iterative development.

- **6. FUNCTIONAL AND PERFORMANCE TESTING**

6.1 Functional Testing
- Verified marks entry functionality
- Verified automatic total calculation
- Verified percentage calculation
- Verified pass/fail logic
- Verified data storage

6.2 Performance Testing
- Tested system with multiple student records
- Verified fast response time
- Ensured no data duplication
- Checked system stability

- **7. RESULTS**

The system successfully generates:

- Student Form
- Subject-wise Marks Entry
- Auto-calculated Total
- Percentage
- Result Status (Pass/Fail)
- Stored Database Records
- Report Generation

The system works efficiently without manual intervention.

- **8. ADVANTAGES & DISADVANTAGES**

Advantages
- Accurate automated calculations
- Saves administrative time
- Centralized database
- Secure cloud platform
- Easy data retrieval
- Reduced paperwork

Disadvantages
- Requires internet connectivity
- Requires basic ServiceNow knowledge
- Dependent on platform availability

- **9. CONCLUSION**

The Educational Organizations Management System successfully automates student academic record management using ServiceNow.

It reduces manual errors, improves operational efficiency, ensures secure data storage, and simplifies academic record handling.

The project demonstrates practical implementation of ServiceNow application development concepts such as:
- Table creation
- Client Scripts
- Business Rules
- Form design
- Automated workflows

- **10. FUTURE SCOPE**

The system can be enhanced with:
- Grade classification system (A, B, C grades)
- Attendance management module
- Parent portal login
- Email/SMS notifications
- Performance analytics dashboard
- Role-based access control
- Integration with ERP systems

- **11. APPENDIX**

Video Demo
https://1drv.ms/v/c/7455facdcc191830/IQAAK67S7OjHSbPyh1rhUGzBAbKtPFeJDGzgAd
GD4h-ole8?e=eJWzio

GitHub Repository

Repository Link:
https://github.com/R62812/Educational-Organizations-using-Servicenow