

ITECH 7415 – MTECH PROJECT

Assessment Task 3 - Product Roadmap

(Percentage: 10%, Due Date: Week 4)

PROJECT TITLE: Build a program/Software to handle Engineering process

SCHOOL ERP SYSTEM

GROUP 5

Group Members

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Client: Mr. Mudassir Ahmed

DATE: 1st May, 2020

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1. Introduction to School ERP System

a. Client Detail

We are building this School ERP System for our client **Mudassir Ahmed**. Our client runs MA Computer and Electrical Services which is a small company and specialized in electrical and information technology engineering. They cater small businesses and organizations to solve their problems with new innovations, and with the number of technologists and engineers. They provide direct and personalized engineering services to make communication efficient and simplified business processes.

Our client is Mudassir Ahmed who is part of a successful company named “MA computer and electrical services” which offers new innovations to small businesses and organization to ease their business processes and make them efficient. Our client is very good observer and teacher as he made us do some research about technologies being used nowadays and come up with some ideas related to our project which was an impressive starter for engaging with the project. Then he had a look at the ideas we came up with and made us select the one which is the most understandable for all of us which was a great move to make things easier for us and work more efficiently.

b. Product Vision

Our aim is to ease the process of managing educational institutes' activities by providing a multipurpose software which will be used by everyone involved in the organization such as students, staff, parents and admins etc. Main areas for practicing this software are: Student central, Finance, Library services, HRM and Examination department. This software would be helpful for specially newcomers who are not familiar with the new system to register themselves easily and also for the existing stakeholders and users to get updates about anything smoothly. The software will be upgraded twice in first six months and after that every six months. The changes will take place by analyzing its feedback section.

Goals

- Ease the library services.
- Keep up financial transactions in control.
- Ease the services of student central.
- Manage Academic activities.
- Balance the staff and workload

Objectives

- To keep record of students' enrolled duration time.
- To get students' academic up to date.
- Keep students up to date about the books issued and available books in library.
- To make students pay their tuition fee on time.
- Pay staff members on time.
- Recruit new employees/Professors if needed.

- Keep record of financial transaction
- Schedule classes on time.
- Examination management and result processing

Benefits

- By paying employees on time, trust bond between management and staff gets stronger.
- Reducing paper-based activities due to online attendance, fees and admissions as it is hard to maintain bundle of records.
- Students no more have to stand for hours in the queue to pay the fees and get enrolled.
- Effective study by providing classes on time as gap in classes can lead to incomplete understanding.
- Smoothness in study due to availability of enough qualified staff.
- Students will have online access to library services.
- Student central activities will be eased due to availability of student details online due to which staff can resolve student issue faster

2. Product Backlog

a. Definition

ERP Enterprise Resource Planning

HRM Human Resource Management.

CRUD Database function (**Create Read Update and Delete**)

SCRUM Agile Framework for project management and development .

b. Users

Roles	Responsibilities
Admin	The School ERP system Administrator who is responsible for daily management, upkeep, control and configuration of the system and its users.
Teacher	Managing students, take attendance, exam and result preparation
Student	Participates in school activities, interact with teacher, involves in all academic activities such as learning, examination.
Parent	Regularly monitor and interact with school staff to know about their children performance and involvement in school.
Librarian	Handles all the functionality of library section such as book issue, return, stock control

Accountant	Controls all kind of work in account and finance section
HRM Staff	Balance staff and workload, recruit staff, payroll management

c. Product Backlog (User Stories)

User stories	Priorities
US1 As an admin, I want to manage User Accounts, so that I can add/update/remove/view the users	High
US2 As an admin, I want to add new class, so I can assign teacher and student to that class.	High
US3 As an admin, I want to manage student attendance, so that I can generate attendance report easily.	Medium
US4 As an admin, I want to manage school events, so that users can view the upcoming events.	Medium
US5 As an admin, I want to record Staff attendance, so that I can view attendance report.	High
US6 As an admin, I want to manage Examination Schedule, so that I can notify users about upcoming exams.	Medium
US7 As an admin, I want to publish result so that I can monitor student performance and progress.	High
US8 As an admin, I want to view different departments report, so that I can monitor different department's progress and make decision.	Medium
US9 As a Teacher, I want to marked student attendance according to class assigned, so that I can submit attendance report to admin.	Medium
US10 As a Teacher, I want to upload study materials/files to students, so that I can share resources with students.	High
US11 As a Teacher, I want to view school events, so that I can plan according to the event scheduled and type.	Low

User stories	Priorities
US12 As a Teacher, I want to apply for leave, so that I can take rest when I am sick or carry other emergency work.	Low
US13 As a Teacher, I want to manage examination question, so that I can select most appropriate question for upcoming exam.	Medium
US14 As a Teacher, I want to manage assignment, so that I can assign assignment to students according to class.	High
US15 As a Teacher, I want to search book in library, so that I can check if the book needed is in library or not.	Medium
US16 As a Student, I want to get class routine, so that I can check time and teacher schedule for the subject.	Low
US17 As a Student, I want to get attendance status, so that I can check my attendance report	Medium
US18 As a Student, I want to communicate with teacher, so that I can ask question.	High
US19 As a Student, I want to view exam report card so that I can track my progress.	Low
US20 As a Student, I want to search book in library, so that I can check whether book is available or not to borrow from library.	Medium
US21 As a Student, I want to get invoice, so that I can view the fees that need to be paid.	Medium
US22 As a Student, I want to view school events, so that I can plan according to the event scheduled and type.	Low
US23 As a Student, I want to get study materials uploaded by teacher, so that I can have my own copy of files	High
US24 As a Parent, I want to view my child activities, so that I can monitor their every actions.	Low
US25 As a Parent, I want to view my child mark sheet, so that I can monitor their progress.	Medium
US26 As a Parent, I want to pay invoice, so that my child can enroll in class.	Medium
US27 As an Accountant, I want to generate invoice, so that I can send invoice to children and parents.	High

User stories	Priorities
US28 As an Accountant, I want to manage expenses, so that I can track finance of the school.	High
US29 As an Accountant, I want to generate financial report, so that I can view the profit or loss of school.	Medium
US30 As Human resource staff, I want to manage payroll, so that I can track and monitor every staff payment details.	Medium
US31 As Human resource staff, I want to manage recruitment, so that I can balance staff with workload.	High
US32 As Human resource staff, I want to manage leave application, so that I can approve or disapprove leave to staff.	Medium
US33 As Librarian, I want to manage book and details, so that I can add new book, update and delete.	High
US34 As Librarian, I want to manage borrower and details, so that I can monitor books to be return.	High
US35 As Human Librarian, I want to communicate with departments so that I can get issues of library.	High

d. Revised User Stories

Requirement ID	USER STORY	ACCEPTANCE CRITERIA
US1	As an admin , I want to manage User Accounts , so that I can add/update/remove/view the users .	After login admin must be able to <ul style="list-style-type: none"> Add Users and their details. Update Users and their Details Delete Users and their Details View Users according to user type
US2	As an admin , I want to add new class , so I can assign teacher and student to that class.	After login admin must be able to <ul style="list-style-type: none"> Add New Class and Details The new class name must be unique
US3	As an admin , I want to manage student attendance , so that I can view attendance report .	After login admin must be able to <ul style="list-style-type: none"> Enter student attendance to the system successfully

		<ul style="list-style-type: none"> Filter student attendance according to class, subject as well as individually
US4	As an admin , I want to manage school events , so that users can view the upcoming events.	After login admin must be able to <ul style="list-style-type: none"> Create events with name, type, date and participants details View upcoming events Users can view the event details Cancel the events to be held
US5	As an admin , I want to record Staff attendance , so that I can view attendance report .	After login admin must be able to <ul style="list-style-type: none"> Enter staff attendance to the system successfully Filter staff attendance according to departments View staff attendance report individually
US6	As an admin , I want to manage Examination Schedule , so that I can notify users about upcoming exams.	After login admin must be able to <ul style="list-style-type: none"> Create Exam Schedule with name, date, attendance criteria View upcoming exams Other Users can view the exam details Cancel the exams to be held
US7	As an admin , I want to publish result and mark sheet , so that I can monitor student performance and progress .	After login admin must be able to <ul style="list-style-type: none"> Enter grades to system for display Other users can view and download result report
US8	As an admin , I want to view different departments report , so that I can monitor different department's progress and make decision .	After login admin must be able to <ul style="list-style-type: none"> View report generated from different departments Filter report according to departments
US9	As a Teacher , I want to marked student attendance according to class assigned , so that I can submit attendance report to admin .	After login Teacher must be able to <ul style="list-style-type: none"> Mark attendance of student according to class assigned Submit attendance report to admin

US10	As a Teacher , I want to upload study materials/files to students , so that I can share resources with students .	After login Teacher must be able to <ul style="list-style-type: none"> • Upload study files (images, video, audio, pdf, word) to the class or group • Share slides
US11	As a Teacher , I want to view school events , so that I can plan according to the event scheduled and type .	After login Teacher must be able to <ul style="list-style-type: none"> • View upcoming events and its detail • Filter events by day and months • Participate in Event if needed.
US12	As a Teacher , I want to apply for leave , so that I can take rest when I am sick or carry other emergency work .	After login Teacher must be able to <ul style="list-style-type: none"> • Submit the sick leave form • .All mandatory field must be filled with genuine reason to submit form
US13	As a Teacher , I want to manage examination question , so that I can select most appropriate question for upcoming exam .	After login Teacher must be able to <ul style="list-style-type: none"> • Add questions to the exam question collection • Select questions to be included in upcoming exams • Generate exam paper
US14	As a Teacher , I want to manage assignment , so that I can assign assignment to students according to class.	After login Teacher must be able to <ul style="list-style-type: none"> • Add assignment, files, details, marking guide, due date • Send assignment to students • Able to change or remove assignment
US15	As a Teacher , I want to search book in library , so that I can check if the book needed is in library or not .	After login Teacher must be able to <ul style="list-style-type: none"> • Access Library dashboard • Enter and search book name by clicking search button • Book status displaced available or not available
US16	As a Student , I want to get class routine , so that I can check time and teacher schedule for the subject .	After login Student must be able to <ul style="list-style-type: none"> • View their routine according to class they are assigned • Download the routine

		<ul style="list-style-type: none"> Filter routine as per subject, teacher and day
US17	As a Student , I want to get attendance status , so that I can check my attendance report frequently .	After login Student must be able to <ul style="list-style-type: none"> View their attendance according to class they are assigned Download the attendance report at end of every month Filter attendance as per subject, teacher and day
US18	As a Student , I want to communicate with teacher , so that I can ask question .	After login Student must be able to <ul style="list-style-type: none"> Send email to the teacher View email response Chat with the teacher outside school hours
US19	As a Student , I want to view exam report card so that I can track my progress .	After login Student must be able to <ul style="list-style-type: none"> View their progress report once published by admin Download the report in pdf format or print Compare the progress
US20	As a Student , I want to search book in library , so that I can check whether book is available or not to borrow from library .	After login Student must be able to <ul style="list-style-type: none"> Access Library dashboard Enter and search book name by clicking search button Book status displaced available or not available
US21	As a Student , I want to get invoice , so that I can view the fees that need to be paid .	After login Student must be able to <ul style="list-style-type: none"> View invoice once published by admin Do enquiry about invoice details
US22	As a Student , I want to view school events , so that I can plan according to the event scheduled and type .	After login Student must be able to <ul style="list-style-type: none"> View upcoming events and its detail Filter events by day and months Participate in Event if needed.
US23	As a Student , I want to get study materials uploaded by teacher , so that I can have my own copy of files	After login Student must be able to

		<ul style="list-style-type: none"> • View any study materials such as pdf, ppt, audio or video file uploaded or shared by teacher • Download files by clicking download button
US24	As a Parent , I want to view my child activities , so that I can monitor their every actions .	After login Parents must be able to <ul style="list-style-type: none"> • View their student activities , achievement , extracurricular activities detail • View Attendance history
US25	As a Parent , I want to view my child mark sheet , so that I can monitor their progress .	After login Parents must be able to <ul style="list-style-type: none"> • View their student mark sheet , grades, comments by teacher • By clicking download they must be able to download the progress report
US26	As a Parent , I want to pay invoice , so that my child can enroll in class .	After login Parents must be able to <ul style="list-style-type: none"> • Pay invoice if their account balance has greater amount than invoice amount • Error message is sent if amount is less than invoice amount or partial payment can be done in this condition
US27	As an Accountant , I want to generate invoice , so that I can send invoice to children and parents .	After login Accountant must be able to <ul style="list-style-type: none"> • Generate invoice for every students • Send invoice to student and parents • Notify deadline to pay invoice
US28	As an Accountant , I want to manage expenses , so that I can track finance of the school .	After login Accountant must be able to <ul style="list-style-type: none"> • Add different expenses to the system • View expenses history • Enquiry about any expense to different departments
US29	As an Accountant , I want to generate financial report , so that I can view the profit or loss of school .	After login Accountant must be able to <ul style="list-style-type: none"> • Generate financial report that includes income and expenses

		<ul style="list-style-type: none"> • Send report to Admin • View business progress
US30	As Human resource staff , I want to manage payroll , so that I can track and monitor every staff payment details .	After login Accountant must be able to <ul style="list-style-type: none"> • Pay to staff their wages • View staff payment details • Get notification if any staff is yet to be paid
US31	As Human resource staff , I want to manage recruitment , so that I can balance staff with workload .	After login Accountant must be able to <ul style="list-style-type: none"> • Able to post vacancy in any position • View job application by applicant • Send email to applicant
US32	As Human resource staff , I want to manage leave application , so that I can approve or disapprove leave to staff .	After login Accountant must be able to <ul style="list-style-type: none"> • Able to view leave application • Able approve and reject leave application
US33	As Librarian , I want to manage book and details , so that I can add new book, update and delete .	After login Librarian must be able to <ul style="list-style-type: none"> • Able to add book and details • Remove books and details • Update books and details
US34	As Librarian , I want to manage borrower and details , so that I can monitor books to be return .	After login Librarian must be able to <ul style="list-style-type: none"> • Able to add burrower information to system which includes name, date of book issued , date of book return, book name, quantity • Notify burrower about due date to return book
US35	As Human Librarian , I want to communicate with departments so that I can get issues of library .	After login Librarian must be able to <ul style="list-style-type: none"> • Able to send and receive email by/from department • Able to view feedback given to library

3. Work to be done

As per the success criteria stated in project storyboard, the school ERP system project must be completed with all requirements as given by client and within the timeframe of 12 weeks.

*The **main goal** of this project is to deliver a simple ERP system for school that perform all the required functionality needed to run different departments running in school environment. Moreover, it is a single software to handle functionality of different departments of School.*

To meet the success criteria of our web-based School ERP system project, the following Works to be done:

- I. The basic UI design of the ERP system is required by the end of week 5.
- II. The design should be responsive and stable so that the system can work in all browser and device of different screen size effectively.
- III. The form (registration, login) must be well-validated so as to enhance the security of the system.
- IV. A normalized database system must be created so as to reduce duplication of data and only related data can be stored in table.
- V. Creating a local database to store all the information.
- VI. Development of Admin module that controls overall functionality & users of the system.
- VII. Admin panel must be simple and easy to navigate to different department and functions.
- VIII. Admin module should include functionality to CRUD Users at different departments.
- IX. An event management module is required that CRUD all the events that are happening in school.
- X. An exam management and result processing module is required that helps to create exam timetable, question and process result and mark sheet.
- XI. An attendance module need to be developed so as to record, view and analyze staff and student attendance in school.
- XII. Document manager module need to be developed so that the teacher can share or upload important documents, audio and video to students.
- XIII. A library system will also be developed so as to notify the book details, record book issue and return.
- XIV. A Human Resource Management system is required to manage staff, recruit new staff and approve leave to staffs.
- XV. Payroll system need to be integrated to system so as to record the payroll information of the staff.
- XVI. Account system is also required to record fee payment, financial transaction information and other account details.
- XVII. A customized Dashboard according to user logged in.
- XVIII. Online assistance for student.
- XIX. User Manuals for different users on how to use different functionality of the system.
- XX. Help button to guide users.
- XXI. Strong Security such as data encryption method, form validation, user verification so as to keep system secure and trusted.
- XXII. Use of Very light weighted framework in development of system so to load system quicker and enhance the speed.
- XXIII. Development of easy communication functionality between systems.

XXIV. Using Scrum methodology so as to develop a user-centric with complete collaboration between team members, client and users.

a. Work Breakdown Structure

The work break down structure for school ERP system:

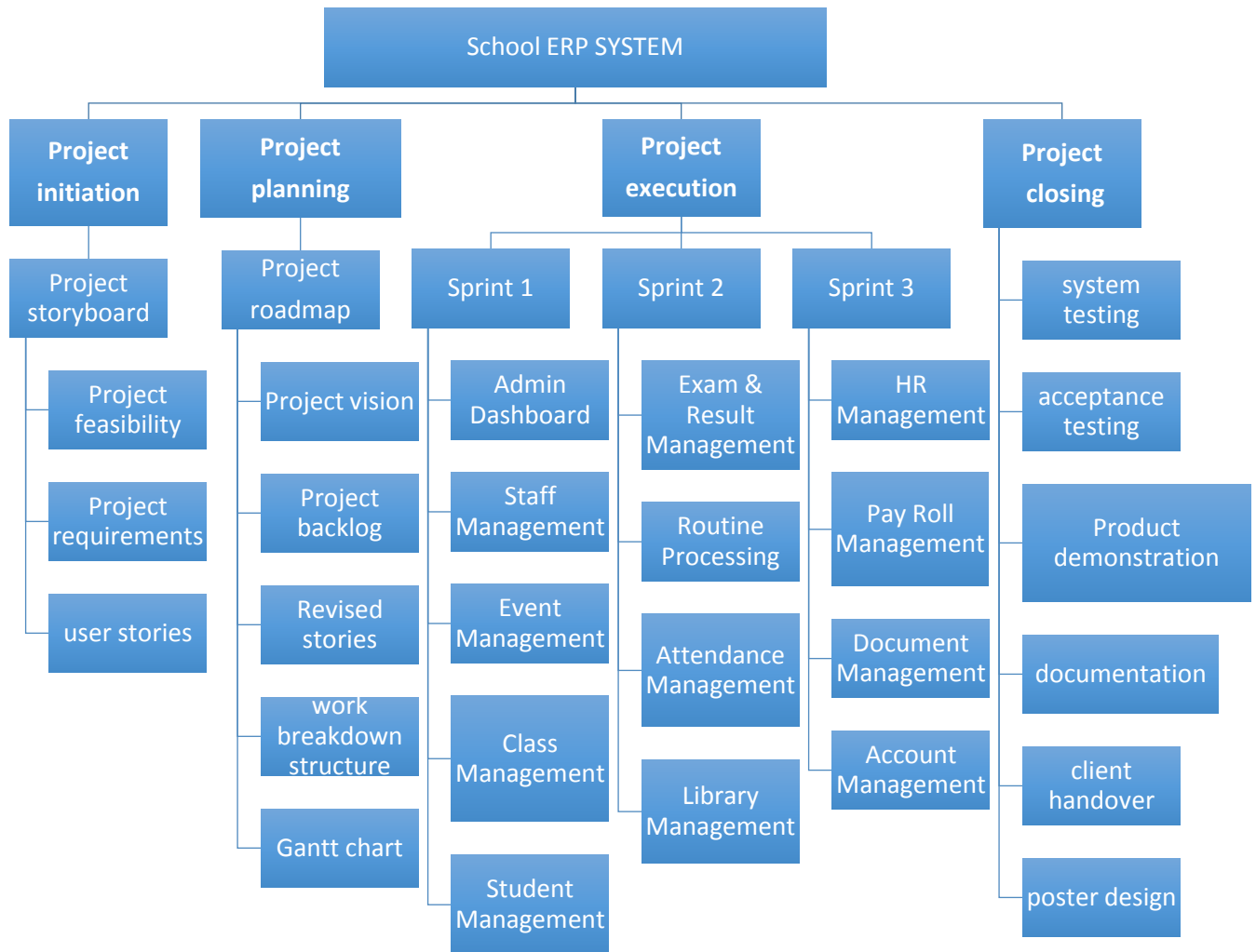


Fig 4.a: Work Breakdown structure of School ERP System


b. Milestones

Key Milestones / Deliveries	Delivery date	Outcomes
Project Storyboard	3 rd April, 2020	Purposed Approved or Rejected
Product Roadmap	1 st May, 2020	Finalized the Requirement
Sprint 1	8 th May, 2020	Prototype 1(Admin module +staff management + event management + class management + student management)
Sprint 2	29 th May, 2020	Prototype 2 (Prototype 1 + Routine processing + Exam & Result processing + Attendance and library management)
Sprint 3	19 th June, 2020	Prototype 3 (Complete System)
Product Demonstration	3 rd July 2020	Final product presentation and demonstration to client to know is client satisfied with product.
Project Write-up	3 rd July, 2020	Change management plan, Final Report, User manual/ Training , Deployment plan , Configuration Management plan

4. Sprint Schedule

a. Sprint 1

	Name	Duration	Start	Finish	Predecessors
17	3.3 Sprint 1	13 days	4/26/20 5:00 PM	5/9/20 5:00 PM	16
18	3.3.1 Daily Sprint Meeting	0 days	4/26/20 5:00 PM	4/26/20 5:00 PM	
19	3.3.2 Design UI and Database	2 days	4/27/20 8:00 AM	4/28/20 5:00 PM	18
20	3.3.3 Develop Modules	8 days	4/29/20 8:00 AM	5/6/20 5:00 PM	19
21	3.3.4 Integrate Modules	1 day	5/7/20 8:00 AM	5/7/20 5:00 PM	20
22	3.3.5 Sprint Review	1 day	5/8/20 8:00 AM	5/8/20 5:00 PM	21
23	3.3.6 Sprint Retrospective	1 day	5/9/20 8:00 AM	5/9/20 5:00 PM	22



Sprint 1 is scheduled from 24th April to 8th May which is of 2 weeks duration and also the shortest sprint. In sprint 1 we are planning to develop Admin Dashboard, staff management module, student management module, class management module and event management module. It covers the following user stories:

Requirement ID	USER STORY	ACCEPTANCE CRITERIA
US1	As an admin , I want to manage User Accounts , so that I can add/update/remove/view the users .	After login admin must be able to <ul style="list-style-type: none"> Add Users and their details. Update Users and their Details Delete Users and their Details View Users according to user type

US2	As an admin , I want to add new class , so I can assign teacher and student to that class.	After login admin must be able to <ul style="list-style-type: none"> Add New Class and Details The new class name must be unique
US4	As an admin , I want to manage school events , so that users can view the upcoming events.	After login admin must be able to <ul style="list-style-type: none"> Create events with name, type, date and participants details View upcoming events Users can view the event details Cancel the events to be held
US11	As a Teacher , I want to view school events , so that I can plan according to the event scheduled and type .	After login Teacher must be able to <ul style="list-style-type: none"> View upcoming events and its detail Filter events by day and months Participate in Event if needed.
US22	As a Student , I want to view school events , so that I can plan according to the event scheduled and type .	After login Student must be able to <ul style="list-style-type: none"> View upcoming events and its detail Filter events by day and months Participate in Event if needed.

b. Sprint 2

	Name	Duration	Start	Finish	Predecessors
24	E3.4 Sprint 2	21 days 5/10/20 8:00 AM	5/30/20 5:00 PM	17	
25	3.4.1 Daily Sprint Meeting	1 day 5/10/20 8:00 AM	5/30/20 5:00 PM	25	
26	3.4.2 Design UI and Database	3 days 5/11/20 8:00 AM	5/13/20 5:00 PM	26	
27	3.4.3 Develop Modules	11 days 5/14/20 8:00 AM	5/24/20 5:00 PM	27	
28	3.4.4 Integrate Modules	4 days 5/25/20 8:00 AM	5/29/20 5:00 PM	28	
29	3.4.5 Sprint Review	1 day 5/29/20 8:00 AM	5/29/20 5:00 PM	29	
30	3.4.6 Sprint Retrospective	1 day 5/30/20 8:00 AM	5/30/20 5:00 PM	29	



Sprint 2 is scheduled from 9th May to 29th May which is of 3 weeks duration. In sprint 2 we are planning to develop exam and result management module, library management module, routine management module and attendance management module. It covers the following user stories:

Requirement ID	USER STORY	ACCEPTANCE CRITERIA
US3	As an admin , I want to manage student attendance , so that I can view attendance report .	After login admin must be able to <ul style="list-style-type: none"> Enter student attendance to the system successfully

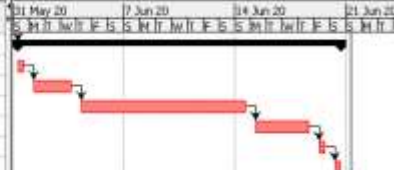
		<ul style="list-style-type: none"> Filter student attendance according to class, subject as well as individually
US5	As an admin , I want to record Staff attendance , so that I can view attendance report .	After login admin must be able to <ul style="list-style-type: none"> Enter staff attendance to the system successfully Filter staff attendance according to departments View staff attendance report individually
US6	As an admin , I want to manage Examination Schedule , so that I can notify users about upcoming exams.	After login admin must be able to <ul style="list-style-type: none"> Create Exam Schedule with name, date, attendance criteria View upcoming exams Other Users can view the exam details Cancel the exams to be held
US7	As an admin , I want to publish result and mark sheet , so that I can monitor student performance and p`rogress .	After login admin must be able to <ul style="list-style-type: none"> Enter grades to system for display Other users can view and download result report
US9	As a Teacher , I want to marked student attendance according to class assigned , so that I can submit attendance report to admin .	After login Teacher must be able to <ul style="list-style-type: none"> Mark attendance of student according to class assigned Submit attendance report to admin
US13	As a Teacher , I want to manage examination question , so that I can select most appropriate question for upcoming exam .	After login Teacher must be able to <ul style="list-style-type: none"> Add questions to the exam question collection Select questions to be included in upcoming exams Generate exam paper
US14	As a Teacher , I want to manage assignment , so that I can assign assignment to students according to class.	After login Teacher must be able to <ul style="list-style-type: none"> Add assignment, files, details, marking guide, due date Send assignment to students Able to change or remove assignment

US15	As a Teacher , I want to search book in library , so that I can check if the book needed is in library or not .	After login Teacher must be able to <ul style="list-style-type: none"> • Access Library dashboard • Enter and search book name by clicking search button • Book status displaced available or not available
US16	As a Student , I want to get class routine , so that I can check time and teacher schedule for the subject .	After login Student must be able to <ul style="list-style-type: none"> • View their routine according to class they are assigned • Download the routine • Filter routine as per subject, teacher and day
US17	As a Student , I want to get attendance status , so that I can check my attendance report frequently .	After login Student must be able to <ul style="list-style-type: none"> • View their attendance according to class they are assigned • Download the attendance report at end of every month • Filter attendance as per subject, teacher and day
US19	As a Student , I want to view exam report card so that I can track my progress .	After login Student must be able to <ul style="list-style-type: none"> • View their progress report once published by admin • Download the report in pdf format or print • Compare the progress
US20	As a Student , I want to search book in library , so that I can check whether book is available or not to borrow from library .	After login Student must be able to <ul style="list-style-type: none"> • Access Library dashboard • Enter and search book name by clicking search button • Book status displaced available or not available
US24	As a Parent , I want to view my child activities , so that I can monitor their every actions .	After login Parents must be able to <ul style="list-style-type: none"> • View their student activities , achievement , extracurricular activities detail • View Attendance history

US25	As a Parent , I want to view my child mark sheet , so that I can monitor their progress .	After login Parents must be able to <ul style="list-style-type: none"> View their student mark sheet , grades, comments by teacher By clicking download they must be able to download the progress report
US33	As Librarian , I want to manage book and details , so that I can add new book, update and delete .	After login Librarian must be able to <ul style="list-style-type: none"> Able to add book and details Remove books and details Update books and details
US34	As Librarian , I want to manage borrower and details , so that I can monitor books to be return .	After login Librarian must be able to <ul style="list-style-type: none"> Able to add burrower information to system which includes name, date of book issued , date of book return, book name, quantity Notify burrower about due date to return book
US35	As a Librarian , I want to communicate with departments so that I can get issues of library .	After login Librarian must be able to <ul style="list-style-type: none"> Able to send and receive email by/from department Able to view feedback given to library

c. Sprint 3

	Name	Duration	Start	Finish	Predecessors
31	E3.5 Sprint 3	21 days	5/31/20 8:00 AM	6/20/20 5:00 PM	24
32	3.5.1 Daily Sprint Meeting	1 day	5/31/20 8:00 AM	5/31/20 5:00 PM	
33	3.5.2 Design UI and Database	3 days	6/1/20 8:00 AM	6/3/20 5:00 PM	32
34	3.5.3 Develop Modules	11 days	6/4/20 8:00 AM	6/14/20 5:00 PM	33
35	3.5.4 Integrate Modules and test	4 days	6/15/20 8:00 AM	6/19/20 5:00 PM	34
36	3.5.5 Sprint Review	1 day	6/19/20 8:00 AM	6/19/20 5:00 PM	35
37	3.5.6 Sprint Retrospective	1 day	6/20/20 8:00 AM	6/20/20 5:00 PM	36



Sprint 3 is scheduled from 30th May to 19th June which is of 2 weeks duration. In sprint 2 we are planning to develop Human Resource management module, Account management module, Payroll management module and document management module. It covers the following user stories:

Requirement ID	USER STORY	ACCEPTANCE CRITERIA
US8	As an admin , I want to view different departments report , so that I can monitor different department's progress and make decision .	After login admin must be able to <ul style="list-style-type: none"> View report generated from different departments Filter report according to departments

US10	As a Teacher , I want to upload study materials/files to students , so that I can share resources with students .	After login Teacher must be able to <ul style="list-style-type: none"> • Upload study files (images, video, audio, pdf, word) to the class or group • Share slides
US12	As a Teacher , I want to apply for leave , so that I can take rest when I am sick or carry other emergency work .	After login Teacher must be able to <ul style="list-style-type: none"> • Submit the sick leave form • .All mandatory field must be filled with genuine reason to submit form
US18	As a Student , I want to communicate with teacher , so that I can ask question .	After login Student must be able to <ul style="list-style-type: none"> • Send email to the teacher • View email response • Chat with the teacher outside school hours
US21	As a Student , I want to get invoice , so that I can view the fees that need to be paid .	After login Student must be able to <ul style="list-style-type: none"> • View invoice once published by admin • Do enquiry about invoice details
US23	As a Student , I want to get study materials uploaded by teacher , so that I can have my own copy of files	After login Student must be able to <ul style="list-style-type: none"> • View any study materials such as pdf, ppt, audio or video file uploaded or shared by teacher • Download files by clicking download button
US26	As a Parent , I want to pay invoice , so that my child can enroll in class .	After login Parents must be able to <ul style="list-style-type: none"> • Pay invoice if their account balance has greater amount than invoice amount • Error message is sent if amount is less than invoice amount or partial payment can be done in this condition
US27	As an Accountant , I want to generate invoice , so that I can send invoice to children and parents .	After login Accountant must be able to <ul style="list-style-type: none"> • Generate invoice for every students

		<ul style="list-style-type: none"> • Send invoice to student and parents • Notify deadline to pay invoice
US28	As an Accountant , I want to manage expenses , so that I can track finance of the school .	After login Accountant must be able to <ul style="list-style-type: none"> • Add different expenses to the system • View expenses history • Enquiry about any expense to different departments
US29	As an Accountant , I want to generate financial report , so that I can view the profit or loss of school .	After login Accountant must be able to <ul style="list-style-type: none"> • Generate financial report that includes income and expenses • Send report to Admin • View business progress
US30	As Human resource staff , I want to manage payroll , so that I can track and monitor every staff payment details .	After login Accountant must be able to <ul style="list-style-type: none"> • Pay to staff their wages • View staff payment details • Get notification if any staff is yet to be paid
US31	As Human resource staff , I want to manage recruitment , so that I can balance staff with workload .	After login Accountant must be able to <ul style="list-style-type: none"> • Able to post vacancy in any position • View job application by applicant • Send email to applicant
US32	As Human resource staff , I want to manage leave application , so that I can approve or disapprove leave to staff .	After login Accountant must be able to <ul style="list-style-type: none"> • Able to view leave application • Able approve and reject leave application

d. Gantt chart

The Gantt chart for our project School ERP System is as follow:

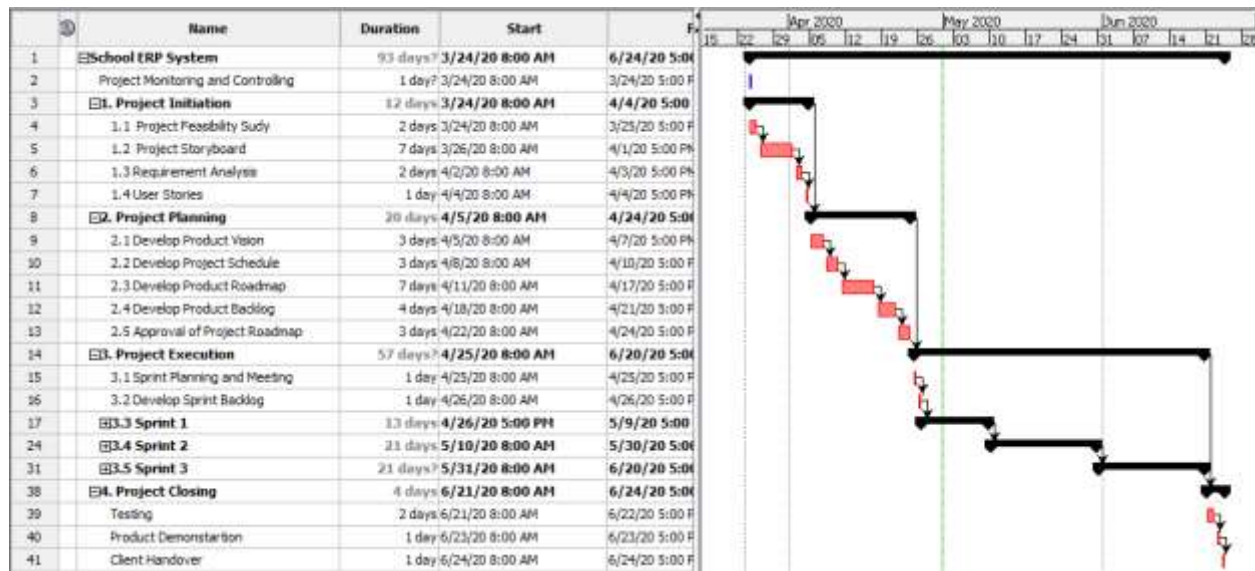


Fig 4d: Gantt chart for School ERP Project

5. ePortfolio Link

<https://eportfolios.federation.edu.au/view/view.php?t=KMw6EQ9PrI2fFRNg1IdH>