

## Exam Registration System



## Master Project Plan

Project Manager:	Vanessa Dirner
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## Approvals:

### Project Sponsor

### Signature

### Date

Dr. Qussay Salih

*Project Sponsor*

### Project Manager

### Signature

### Date



2018/07/28

Vanessa Dirner

*Project Manager*

### Others

### Signature

### Date



2018/07/29

Maira Riffat

*Project Communications  
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2018/07/27

Arshdeep Grewal

*Presentation Manager*



2018/07/22

Stephen Patricio

*Team Assistant*

## *VERSION HISTORY*

<b>Version</b>	<b>Date</b>	<b>Responsible</b>	<b>Notes</b>
1.0	2018/06/17	Maira, Stephen, Vanessa	First Draft
1.1	2018/07/03	Maira, Stephen, Vanessa	Full revision
1.1.3	2018/07/13	Vanessa	Missing areas are added, removed or highlighted redundancies for further review. Changes to overall time schedule and breakdown were introduced.
2.0.1	2018/07/16	Maira, Stephen, Vanessa	Full revision, changes to formatting for ease of readability
2.0.1	2018/07/23	Vanessa	Minor edits

## Purpose of the Document

The Master Project Plan (MPP) defines the project in terms of objectives, scope, deliverables and stakeholders and describes how the project will be executed, monitored, and controlled. It is a primary deliverable in the planning phases of a project and links to the NRS Systems Development Life Cycle (SDLC) in the Initiation Phase of New Development. The detailed MS Project template is a companion to this document and provides a foundation for preparing a work plan and schedule based on project deliverables and the work breakdown structure (WBS).

The purpose of the MPP is threefold:

1. To establish and ensure a common understanding between all parties of the objectives, scope and requirements this project will address;
2. To ensure a common understanding of the work to be performed, the deliverables, the methodology to be used and the roles and responsibilities of all parties; and
3. To provide the project team with a baseline document (scope, tasks, estimates and deliverables) from which to carry out the work, and to measure the progress and success of the project.

Related Documents
Communications Management Plan
Risk Management Plan
Quality Management Plan
Work plan
Work Breakdown Structure (WBS)
Gantt chart
Budget and Cost Management Plan

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## **1.0 Project Purpose**

Our project purpose is to develop a working online exam registration using Rational Rose Software. We will implement the software using Visual Basic. The exam registration website will generate an exam identification number, modify database accordingly and access the various exam centers.

## **Background**

The current exam registration system is delivered manually and is verified by the authorities. Students must personally come to the registration desk and interact with the staff and apply for the exam. The staff will then manually check the student in the database and verify authenticity as well as the student's eligibility to take the exam. After verification, student pays for the fee and staff will update the student's information in the database.

The current system contains significant demerits and therefore requires a new system to better serve the business need of the school. The new system will be able to remove the need for a registration desk and possibly offer this workforce the opportunity to participate in other areas of note such as the school's many student services, or removed from the schools staff database and laid off. Further investigation into the relocation of staff is required.

In interest of school code 403.5, we would like to bring accessibility for all users as a primary objective to be as inclusive as possible to all persons. Building upon accessibility, due to our diverse pupil's backgrounds, we also strongly suggest bringing several language options in upcoming updates to the system if not during principal development. This would be a great step forward towards one of our school's minor objectives of offering classes in multiple languages to appeal to international students and move our university closer to the upcoming 2026 higher education world standards agreement.

In practice of our schools reformation policies, major key holders are being notified of the plans to upgrade and were polled and asked for feedback accordingly. A summary of theses results can be found in section 3.5 of the school's 2018 Annual Review.

The Web-based registration system will also provide convenience for the students as they no longer need to apply for the exam and pay on site, therefore providing them with increased accessibility as well as reduced time to apply.

The proposed project, under ideal circumstances, is expected to be functional for at least 15 years, and under a conservative outlook, at least 8 years. This estimate includes maintenance and upgrades. The new system will be designed to be simple and easily manageable, leading complexity issues that may arise to be minimal if not unlikely. We do however, plan on adding multiple small to medium sized updates, therefore a fairly flexible base program in order to adapt to changes is needed.

## Objectives

The objective of the project is to change the system from a manual system to a web-based system upon which minor updates will be introduced. We plan on having this completed within 2 and a half months and will be able to process up to 1,200 users at a time. We currently have around 25,000 students. This is in line with our anticipated yearly student growth of 0.5%, giving us upwards of 26,000 students in 10 years time.

The secondary objective of this web application provides students access to registration system and increasing the system's accessibility by making it equal for everyone to access it from where they are. Additionally, its objective is to provide an efficient detailed descriptions of exams available so the student can look into it and see whether they are eligible to take the exam. This will help reduce work time for authorities to check for fraudulent or otherwise inadmissible applications, as well as save time for students in the registration process.

The tertiary objective this web application development is streamlining registration staff and employ the fewest and highest quality of people necessary to run the system. For instance, support desk where you can go ask questions and inquire about other technical issues.

To complete all three of our goals, we will hire on 2 full-time developers and use eXtreme programming to roll out a bare bones functioning site before building on the other features. We will be using 10 volunteer students along with 1 registration desk agent to test out and give their feedback with every cycle.

## Scope

The current exam registration is a web-based registration system that is accessed only by administrators such as back end and registration desk. We intend to make it available to students so as to lower administration costs and give more control to students. We will allow students to register for an exam but the system will not automatically verify any fraudulent or duplication of registration. The administrators are required to verify or check the details before the database is finalized.

### 1.1 In Scope

The scope of the project includes:	
While the students are registering for the exam, there is a notification on the side updating students of any added or dropped exams.	
Payment through Visa and Mastercard	
Storage of user accounts linked to main school account	
Password retrieval	
Times and locations of exams	
Support <ul style="list-style-type: none"><li>○ Text and video tutorials</li><li>○ KPU help desk phone number</li></ul>	
Accessibility support <ul style="list-style-type: none"><li>○ Proper html labelling for ease of navigation through voice over</li></ul>	



## 1.2 Out of Scope

The following items are out of scope and provided here to help clarify the scope boundaries of the project:	
Entertainment	<ul style="list-style-type: none"><li>○ Music, videos etc. while registering</li></ul>
Information about exam	<ul style="list-style-type: none"><li>○ What course it is for (students must learn that from teacher)</li><li>○ What will be on the exam</li><li>○ Where to find practice exams</li></ul>
Real time user support	<ul style="list-style-type: none"><li>○ No chat boxes available, must see main school help desk for support</li></ul>

## Major Deliverables

Major Deliverable	Description	Target Date
Project Plan	Includes: System Service Request, Feasibility study, Project Charter, User surveys	June 15, 2018
Software Requirements Specification	Formed with help from user surveys and 10 person student group. Includes input from key stakeholders. Will be reviewed with each cycle	June 25, 2018
Software Design		July 2, 2018
Full funding for Project	Any loans required must be approved at this stage. This is the decisive point of no return.	July 5, 2018
Software Design		July 11, 2018
Development	Part of eXtreme cycles. Will start off with basics, check for and fix major bugs, release new versions every 1-2 weeks for user reviews.	July 25, 2018
Fully functional Exam Registration System	Allows students to complete the registration process online. This includes: filling the applications, uploading and attaching required documents, checking which examination centers are available on certain dates and registration confirmation.	August 7, 2018
Implementation	Informing and teaching users and admin about software. Once we have a stable and functioning site we will roll it out as a optional alternative to the registration desk while development is still underway. Useful to see how site stands up to higher volume and gauge popularity.	August 21, 2018
Maintenance	Full release and yearly reviews. Using gathered ongoing feedback surveys from users. Will consider the possible creation of a mobile application or other major additions.	August 31, 2018

## Milestones and Project Plan

Milestone	Target Date / Completion Date
Project Kickoff Event	June 15, 2018
Bidding Wars for Programming Team	June 15, 2018
Software Requirements Specification	June 15, 2018
Selection of Vendor	June 16, 2018
Decision Point for further approval	June 17, 2016
User review group is brought in	June 20, 2018
Programming team is hired	June 25, 2018
Detailed Software Design Description	June 27, 2018
Build begins, programming team is deployed	June 28, 2018
Cycle 1 is completed	July 7, 2018
Cycle 2 is completed	July 13, 2018
Cycle 3 is completed	July 26, 2018
Cycle 4 is completed	July 31, 2018
Beta version is released	August 1, 2018
Cycle 5 is completed	August 8, 2018
Select administrators are taught how to maintain new system	August 20, 2018
Programming team is put on call	August 22, 2018
Implementation of Web Registration System	August 28, 2018
Registration desk is phased off	August 28, 2018

Weekly Reviews of system begin by programming team	August 29, 2018
Programming team contracts are closed	August 31, 2018
Project Charter and any other documents are reviewed and closed	August 31, 2018
Performance Reviews are given	August 31, 2018

## Stakeholders

The following stakeholders' (internal and external) interests, expectation, and potential concerns must be considered throughout the project:

Stakeholder	Represented by	Interests, Expectations, Concerns
School Executive	Vanessa Dirner, <i>Project Sponsor</i>	Revenue Laws and local guidelines other ministry standards and codes
School Dean	Maira Riffat, <i>Communications Assistant</i>	Cheating/ Security—right students are showing up Point of info for students Student needs are met
School Management & Staff	Arshdeep Grewal, <i>Presentation Manager</i>	Facilitation Plagiarism
Contracted out Company (type name here)'s CEO & CIO liaison		Developer's rights, pay etc. Contract fidelity. Site Reviews.
Users/ Students	Stephen Patricio, <i>Team Assistant</i>	Ease of access, speed, convenience
Internal IT Staff Representative	Vanessa Dirner, <i>Project Manager</i>	System difficulties, logistics, input on the system
System developers from Cookie	Stephen Patricio, <i>Team Assistant</i>	Software specifications, bugs

## Links and Dependencies

This project is dependent on the following:
Stakeholders
Previous system
Access to Rational Rose and Visual Basic
Look and feel of the rest of the school's systems, websites, etc.
Banking Institution
Computer

List of Projects and Initiatives that depend on this project
Resource availability
Fully functional web application
Increasing students interest in online registration system compared to registration desk
Exam
Grades

Success of this project is linked to the following:
User's positive feedback
Better allocation of staff resources
Valuable data for future school interest: <ul style="list-style-type: none"><li>○ Numerical figure of how many students are taking exams every semester. This would enable the school to see the increase/ decrease (fluctuations) in enrollment numbers.</li><li>○ Would be able to obtain data on the demand of specific courses. School may be able to use this data to see which courses require additional numbers.</li></ul>

Future Work Dependent on the Completion of this Project
Maintenance
Updates
Further modification to the system to make it available for all the electronic devices ( smartphones and tablets).

## Issues and Constraints

**Issues and constraints that could impact project success include:**

Risk	Description
Financial Risks	Possibility of over-budgeting Students and school's willingness to pay for increased charges
Customer Issues	<p>Willingness and readiness of the students to use the system</p> <ul style="list-style-type: none"> <li>○ Use of credit cards for online payment</li> <li>○ Use of computers</li> </ul> <p>Language capabilities</p> <p>Health issues such as</p> <ul style="list-style-type: none"> <li>○ Disabilities <ul style="list-style-type: none"> <li>■ Colour blind</li> <li>■ Physical handicap</li> <li>■ Etc.</li> </ul> </li> </ul> <p>Computer Literacy</p>
Compliance Issues	<p>Project Approval</p> <p>Introduction of new legal legislation that may negatively impact the project such as adherence to specific technology standards</p>
Operational Risks	<p>Unforeseen incidents that can cause the entire or specific areas of the operation to pause or delay</p> <p>Availability of computer and entailing technology such as software availability and its ease of use</p> <p>Breakdown of computers and equipment</p> <p>Theft of key equipment and materials</p>
Employee Risks	Willingness and readiness of the employees who will be working on the software to use the updated system



## Assumptions

The following assumptions have been made for the project:	
System will be faster than old archetype	
Users are literate	
Continued IT support	
Better information/security control	
Medium to low training requirements/ease of learning new system	
Adequate funding	
Re-allocation of registration staff	
Once exam registration seats are full students will be able to access section	

## Budget

The project budget is summarized below:
Limited budget
Maintenance is separately allocated 45% of development
2.5 - month time constraint
Make it available by September for Fall Semester
Start by January 2018 and completion date of Apr 15 2018

Capital	Total (in Canadian Dollars)
Requirements (design/build)	\$20,000
Implementation	\$5000
<b>Company Contract</b>	<b>Total = 84,420</b>
Infrastructure	\$1000
General supplies and resources	\$ 300
Project Management	\$18,750
Travel (gas price)	(\$120 X whoever is travelling) per week
Training	\$5000
Developers	\$24 000 (2 x \$12000)
Company Contract / Licensing fee	\$10 000 (30% premium)

Rational Rose Software	\$250
<b>Sustainment</b>	<b>Total</b>
Maintenance (Year 1)	20% (\$16,884)
Maintenance (Year 2)	15% (\$12,663)
Maintenance (Year 3+)	10% (\$8,442)
Amortization**	Fixed rate of (6-8%) on 30%
Licensing Fees***	\$50 (Credit Card Service Lease) per month

\*Maintenance is typically calculated as 20% in year one, 15% in year two, 10% in year three and 10% subsequent years of the development cost.

\*\*Capital is amortized over five years once the system has been implemented (amortization is paid in 60 equal monthly payments).

\*\*\*Licensing fees will cover expenses such as annual license or maintenance fees.

## Business Loan Summary

**\$596**

Monthly Payment

**\$35,783**

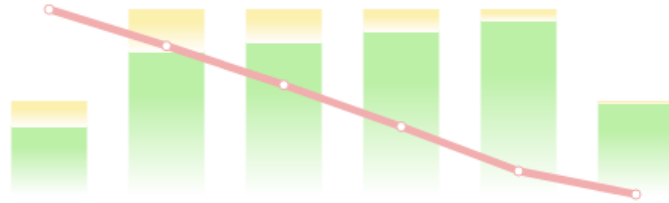
Total of 60 Payments

**\$5,303**

Total Interest Paid

**Jun, 2023**

Pay-off Date



## Business Loan Amortization Schedule

Date	Interest	Principal	Balance
Jul, 2018	\$133	\$444	\$29,947
Aug, 2018	\$131	\$446	\$29,501
Sep, 2018	\$129	\$448	\$29,053
Oct, 2018	\$127	\$450	\$28,603
Nov, 2018	\$125	\$452	\$28,151
Dec, 2018	\$123	\$454	\$27,697
<b>2018</b>	<b>\$768</b>	<b>\$2,694</b>	<b>\$27,697</b>
Jan, 2019	\$121	\$456	\$27,242
Feb, 2019	\$119	\$458	\$26,784
Mar, 2019	\$117	\$460	\$26,324
Apr, 2019	\$115	\$462	\$25,862
May, 2019	\$113	\$464	\$25,398
Jun, 2019	\$111	\$466	\$24,932
Jul, 2019	\$109	\$468	\$24,464
Aug, 2019	\$107	\$470	\$23,994
Sep, 2019	\$105	\$472	\$23,522
Oct, 2019	\$103	\$474	\$23,048
Nov, 2019	\$101	\$476	\$22,572
Dec, 2019	\$99	\$478	\$22,094

<b>2019</b>	<b>\$1,321</b>	<b>\$5,603</b>	<b>\$22,094</b>
Jan, 2020	\$97	\$480	\$21,614
Feb, 2020	\$95	\$482	\$21,131
Mar, 2020	\$92	\$485	\$20,647
Apr, 2020	\$90	\$487	\$20,160
May, 2020	\$88	\$489	\$19,671
Jun, 2020	\$86	\$491	\$19,180
Jul, 2020	\$84	\$493	\$18,687
Aug, 2020	\$82	\$495	\$18,192
Sep, 2020	\$80	\$497	\$17,694
Oct, 2020	\$77	\$500	\$17,195
Nov, 2020	\$75	\$502	\$16,693
Dec, 2020	\$73	\$504	\$16,189
<b>2020</b>	<b>\$1,019</b>	<b>\$5,905</b>	<b>\$16,189</b>
Jan, 2021	\$71	\$506	\$15,683
Feb, 2021	\$69	\$508	\$15,175
Mar, 2021	\$66	\$511	\$14,664
Apr, 2021	\$64	\$513	\$14,151
May, 2021	\$62	\$515	\$13,636
Jun, 2021	\$60	\$517	\$13,119
Jul, 2021	\$57	\$520	\$12,599
Aug, 2021	\$55	\$522	\$12,077
Sep, 2021	\$53	\$524	\$11,553
Oct, 2021	\$51	\$526	\$11,027
Nov, 2021	\$48	\$529	\$10,498
Dec, 2021	\$46	\$531	\$9,967
<b>2021</b>	<b>\$702</b>	<b>\$6,222</b>	<b>\$9,967</b>
Jan, 2022	\$44	\$533	\$9,433
Feb, 2022	\$41	\$536	\$8,898
Mar, 2022	\$39	\$538	\$8,359
Apr, 2022	\$37	\$540	\$7,819
May, 2022	\$34	\$543	\$7,276
Jun, 2022	\$32	\$545	\$6,731
Jul, 2022	\$29	\$548	\$6,184
Aug, 2022	\$27	\$550	\$5,634
Sep, 2022	\$25	\$552	\$5,081
Oct, 2022	\$22	\$555	\$4,526
Nov, 2022	\$20	\$557	\$3,969
Dec, 2022	\$17	\$560	\$3,410

<b>2022</b>	<b>\$367</b>	<b>\$6,557</b>	<b>\$3,410</b>
Jan, 2023	\$15	\$562	\$2,848
Feb, 2023	\$12	\$565	\$2,283
Mar, 2023	\$10	\$567	\$1,716
Apr, 2023	\$8	\$569	\$1,146
May, 2023	\$5	\$572	\$574
Jun, 2023	\$3	\$574	\$0
<b>2023</b>	<b>\$52</b>	<b>\$3,410</b>	<b>\$0</b>

## Project Infrastructure

The project team will use standard facilities and tools already available, such as meeting rooms, desktop computers.

Special needs of project as listed below	Description
Programs	DreamWeaver Visual Basic
Work Environment	N/A
Testing Room	Area where students and other users can test and review the initial working software system. Includes one way mirror and video camera as well as standby admin for any questions concerns etc.
Services Assistance	N/A
SharePoint for collaboration	N/A

## Project Review and Completion Criteria

A Post-Implementation Review will be held three to six months after implementation to assess the system in full production.

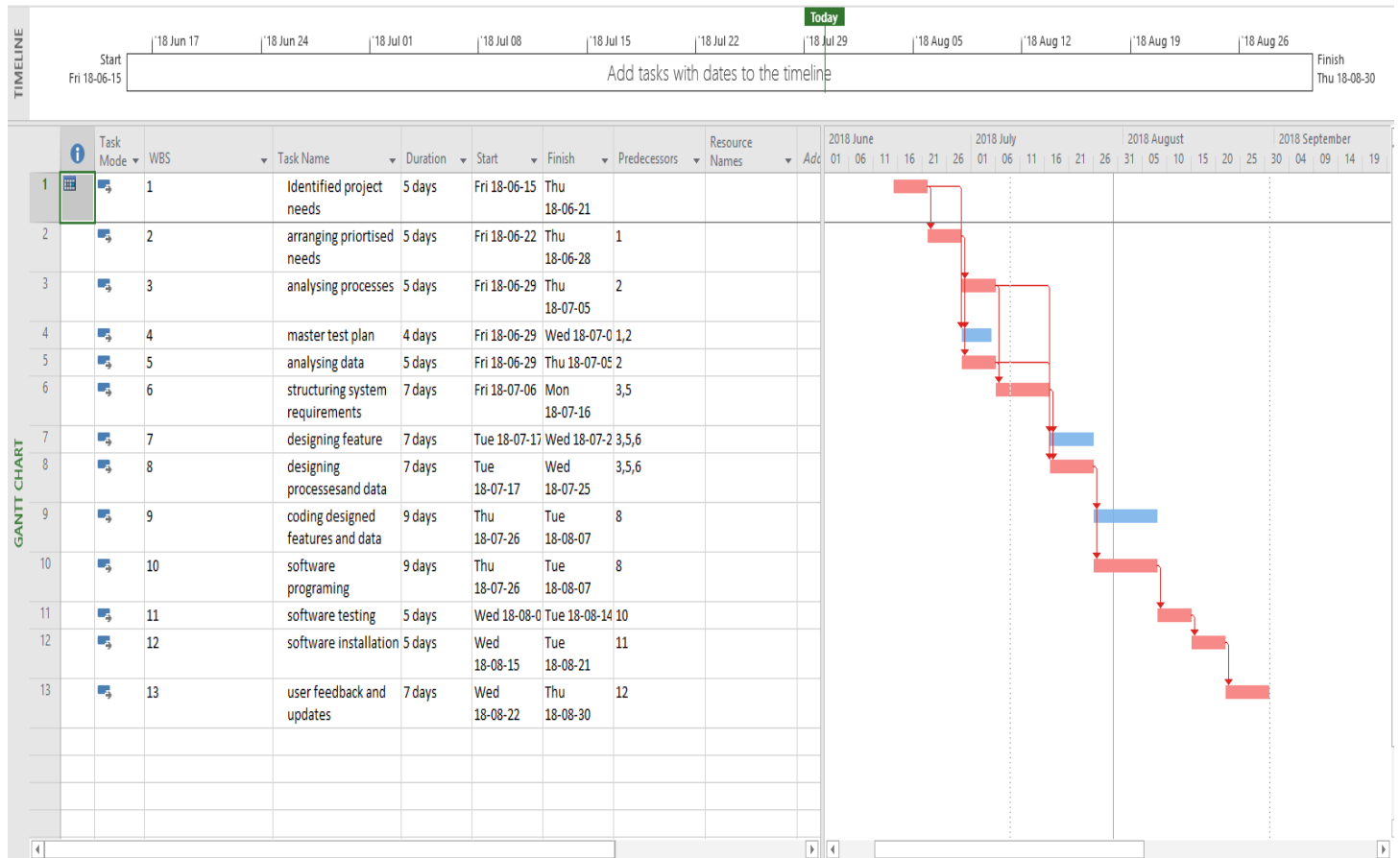
The project will be deemed successful when all the objectives have been met.

The project will be deemed complete when:
All tasks in the project work plan have been completed;
All project documents are complete and signed off by the project sponsor;
All project issues have been addressed;
The project evaluation has been completed;
The post implementation review has been scheduled;
All project staff and physical resource release activities have been completed;
All project-related contract finalization activities have been completed; and
All project files are completed and documentation archived.

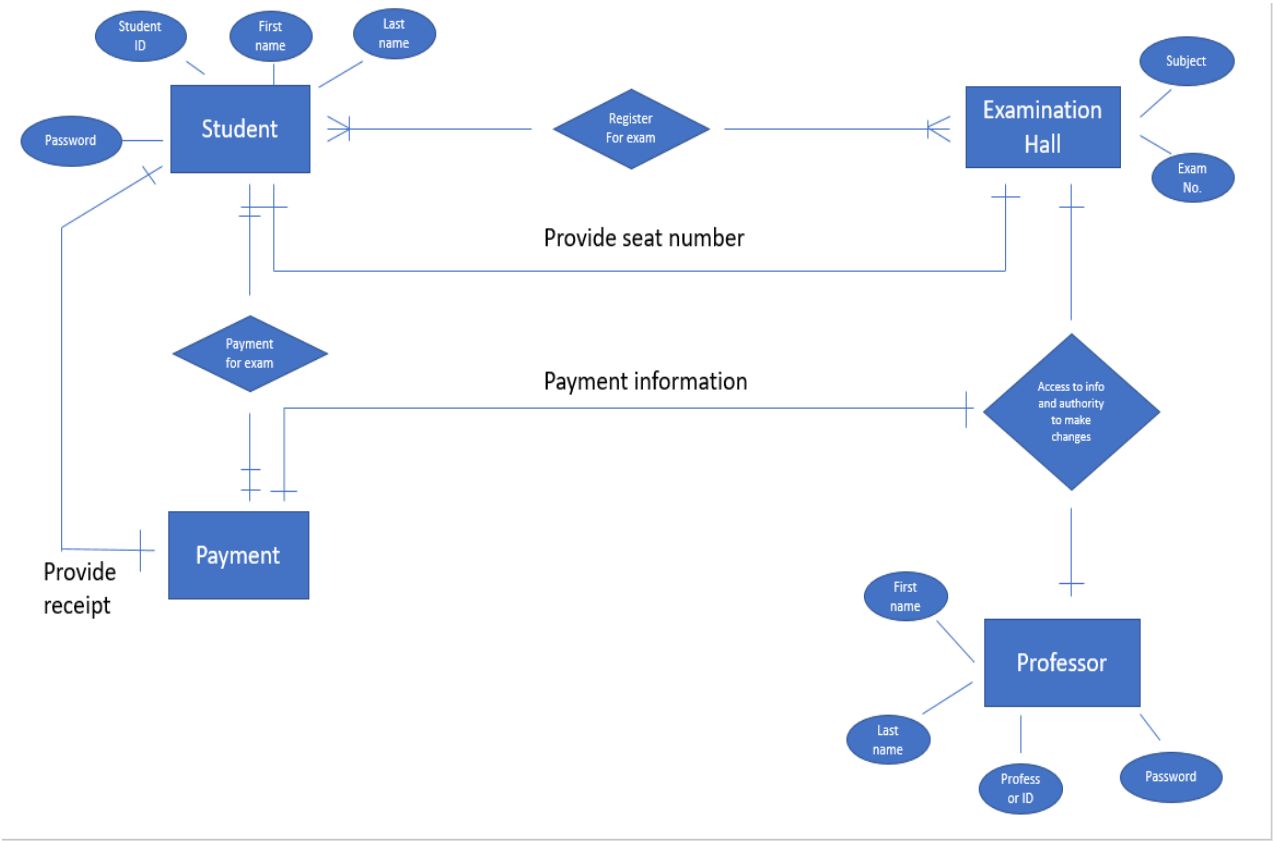


## Appendix A: Workplan

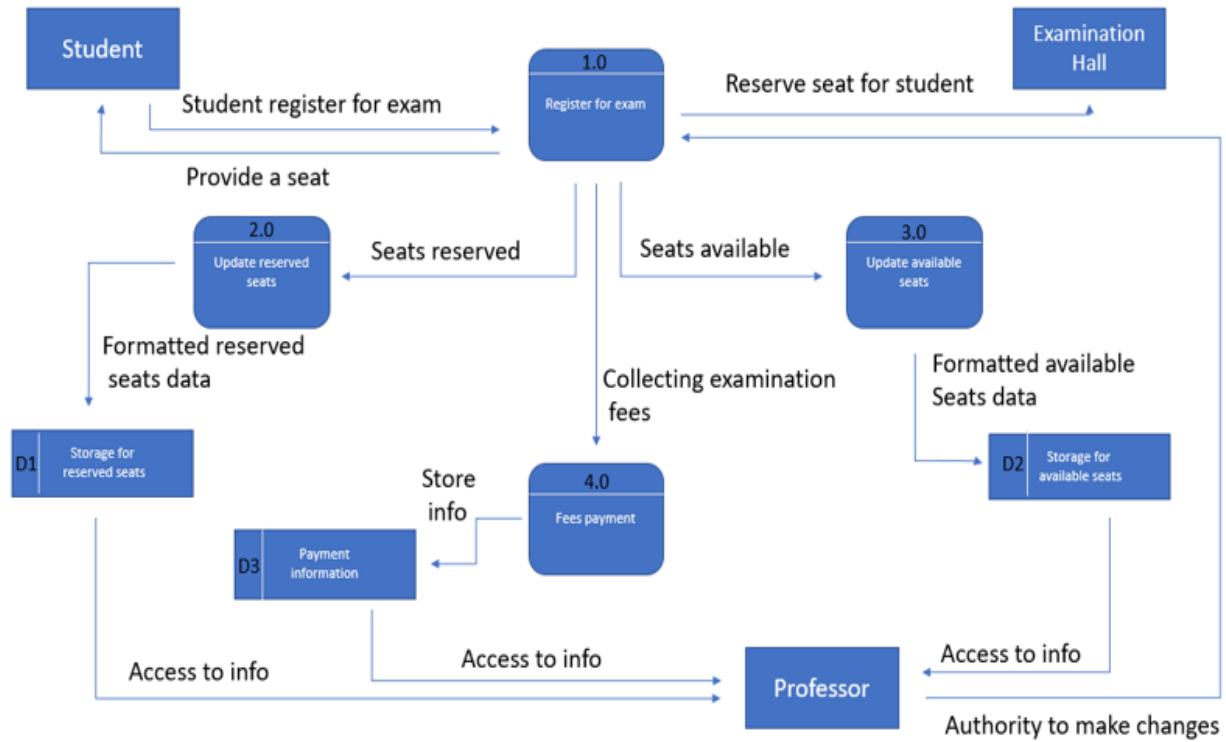
### Gantt Chart



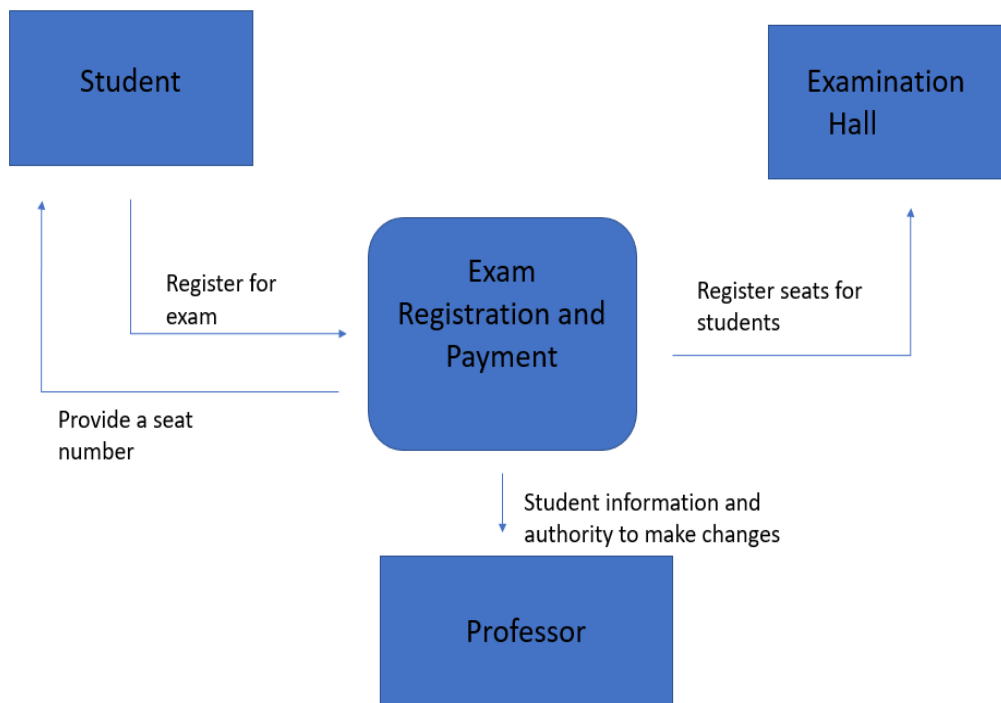
Entity- Relationship Model



## Data Flow Diagram



## Context Diagram



## Reviews and Document Control

### Reviews

This document has been sent to the following for their review and comment.

Name Position	
Horton I.S. Tim	School Executive
Donald Mc D	School Dean
Ulick Gamp	School Management & Staff
Eldrich Diccory	Internal IT Staff Manager

### Project Management

Name Position	
Vanessa	Project Manager