https://github.com/hinjorr/SE-project

Form PM - 01

Project Management Plan/Charter

By: Masood Arif 9763

PROJECT MANAGEMENT PLAN TEMPLATE

Release #: 3rd

Project Manager: Masood Arif

Approvals:

Masood Arif_____ _____

Project Manager **Prime Contractor Manager - (if applicable)**

School Library_____ **Sumair & team**

State Organization Management **User Management**

_____ _____

Oversight Manager - (if applicable)

Accounts_____ _____

Department of Finance ***Other:***

Note: Instructions for the Project Management Plan Template are provided in The Project Management Methodology Volume

Form:-PM 01

1. Project Summary

Information in the project summary areas was started during the project concept phase and should be included here.

Project Name:	***Library Management System***	***Start Date:***	***25/3/2021***
State Organization::	***PAF-KIET***	***Submitted by:***	***Sumair ul haq***
Prime Contractor:	***Dr. Umema hani***	***Date Awarded:***	***2/March/2007***
Current Stage of Project:	***Software Development Life Cycle (SDLC) – SPIRAL Model***		

Project is On Schedule:	***Yes:*** ☝ ***No:*** ***Details: the project build was based on the schedule of completion of 4 months' duration in the 25% average on per month.***	***Project is within Budget:***	***Yes:*** ☝ ***No:*** ***Comments: The project has 6 lakhs budget.***

Please answer the following questions by marking "Yes" or "No" and provide a brief response as appropriate			***Yes***	***No***
Is this an updated Project Plan? If so, reason for Update: Yes_____				
Budget for project by fiscal year and is project funded? If so, for what amount(s) and period(s):				
Budget Amount:	Year:2021	Funded?	**yes**	____
Budget Amount:	Year: 2022	Funded?	____	**no**
Budget Amount:	Year: 2023	Funded?	____	**no**
Total Budget:				

Project Summary - Continued

Points of Contact

This should be the list of individuals that will be involved with the project during the execution phase.

Position	Name/Organization	Phone	E-mail
Project Manager	**Masood arif**	**7898181480**	**Masoodarif1313@gmail.com**
Senior Management Sponsor	**Sumair ul haq**	**47348734**	**sumairk198@gamil.com**
Senior Technical Sponsor	**Hassan Habib Khan**	**938939389**	**Hassanhabib356@hotmail.com**
Procurement Contact	**Initial**		
Customers:	**Students, Member , Faculty**		
Other Stakeholders (Top 3):			

Prime Contractor Information

Company: School Library

Position	Name	Phone	E-mail
Project Manager	**Masood arif**	**09393984908**	**Masood@gmail.com**
Senior Technical Sponsor	**Hassan Habib**	**08768734838**	**Hassan@hotmail.com**
Contracts Contact	**Muhammad Osama / M. Hassaan**	**982818738743**	**-**

2. Project Charter

Business Problem.

All projects start with a business problem/issue to solve.

Library Management System is a term for computer-based system that manage the catalogue of a library. The main purpose of this system is to manage library daily operation efficiently. ... It is also created to ensure that the library items are stored properly in order to maintain their security The library management system is a software to manage manual functions of a library. The software helps to manage the entire library operations from maintaining book records to issue a book.

Statement of Work (Goal).

The statement should be short and to the point. It should not contain language or terminology that might not be understood.

This product aims to replace the current manual system with the automated solution. The main system will comprise of 6 major sub-systems or Modules the integration of theses sub-system will form the main system. All the sub-systems will be tightly integrated so as to give unanimity to user. The current client setup does not have any automation. Therefore, every department and the section will be developed from scratch as all departments are currently working manually. In this document we are covering ***"Human resource and payroll System"*** *only.*

1. **Login**
2. **User Authorization**
3. **Book Transaction Module**
4. **Member Maintenance Module**
5. **Publisher Maintenance Module**
6. **Report Module**

2. Project Charter, continued

Project Objectives:

Provide a brief, concise list of what the project is to accomplish.

The primary function of our library is to implement, enrich and support the educational program School. The library provides a wide range of materials at various levels of sophistication with a diversity of appeal and different points of view.. The main divisions of the system are:

1. Authentication user to check Member authentication of l ibrary system
2. Library Management and Book stocks will be maintained (CRUD)
3. Book transaction module is to manage the receiver's data accordingly
4. Publisher maintenance Module to arrange the books sections
5. Member maintenance Module faculty/Students Record
6. Report Module to manage the payment report

This Project is specifically focused over Module 2 and 5

Success Factors:

List factors that will be used to determine the success of the project.

1. Complete deployment of all 4 modules
2. Smooth integration between all systems
3. effacingly error resolve
4. Everything is going according to the plan

Project Dependencies/Constraints:

Project completion is expected in less than 3.5 months duration
All requirements will be 100% available during requirement phase
Maximum team strength 5

3. Project Tradeoff Matrix & Status Summary

Schedule/Time	Scope/Modules	Resources/Effort/People
CONSTRAINED	CONSTRAINED / **ACCEPTED**	CONSTRAINED / Need to be **IMPROVED** (Cocomo effort = 10 not acceptable our constraint is max 5 members in 3.5 months)

Identify variable to be CONSTRAINED, IMPROVED, ACCEPTED

Comments:

Accepted

+/- Status (Review and Progress Meeting)

	Team	Tech	Schedule	Cost	Comment
RM 1	Requirement SRS and Modeling	-/+	-/+	-/+	SRS Submission
RM 2	PMP	Chap 7 and 18 not complete and chap 1/6 complete	Next week (29/3) meeting Ch 1 and 2 done - /+	-/+	PMP Submission
RM 3	Modeling	-/+	-/+	-/+	Done already in SRS
RM 4	Coding and Testing	-/+	-/+	-/+	Testing Report Submission
RM 4	Demo / Deployment	-/+	-/+	-/+	Final Project Report Submission

Discuss:

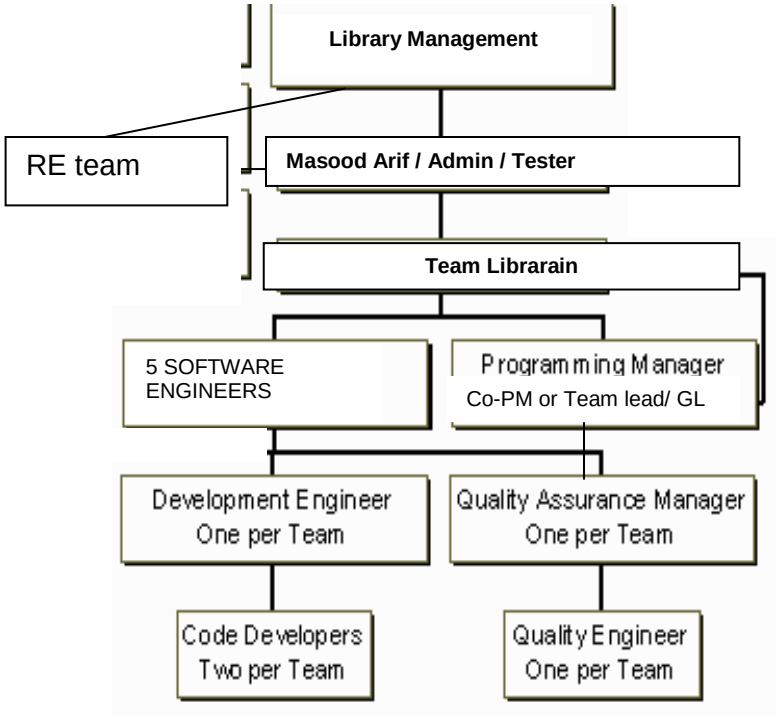
Legend
+ = Ahead of Schedule
- = Behind Schedule

/ = On Schedule

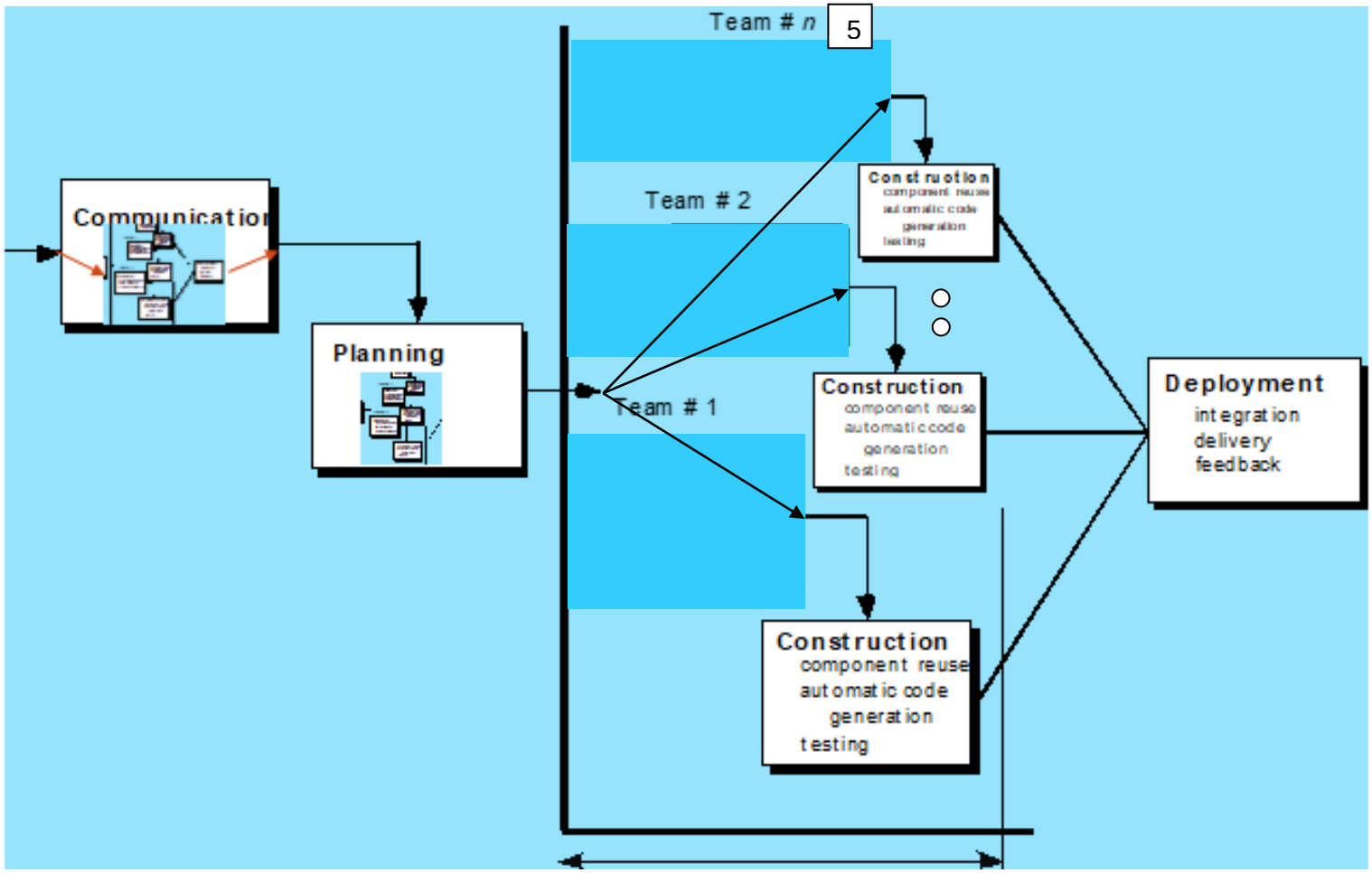
Note: Instructions for the Project Management Plan Template are provided in The Project Management Methodology Volume

4. Project Organization

Provide an organization chart that defines the person responsible for at least the following functions: project manager, development manager, quality assurance, and configuration management.



SDLC Process Model:



5. Activity List (Work Breakdown Structure)

Provide an activity list (*work breakdown structure*) *that describes each task required by the project, with a reference to the statement of work. For large projects, work packages might be included that describe in detail how specific tasks will be completed by specific project teams. These work packages describe required schedule, identify requirements to be completed and describe specific work to be performed*

1. First Estimating FP then from it E and S.

Software Size Estimation using Function Point Method

A) Detail of 5 Transaction Types, at most 5 under each category

	Write down exact Screen or Forms names, or Tables, or Reports name for each count value.
EI	1. Login/User Authorization 2. Book transaction 3. Member Maintenance 4 Publisher Maintenance 5. Report
EO	1. Users table 2. Book Record table 3. Member table 4 publisher table 5. Report table
EQ	1. Search User 2. Book search 3. Member search 4 Search publisher 5. Search report
ILF	1. Login/User Authorization 2.Library Management 3. Member 4 publisher 5.Report
ELF	1. __User Authorization Details___-_____ 2. __Book transaction details ____-_____ 3. Member Maintenance details ___-_____ 4. __Publisher Maintenance details ____- 5. __ Report __ details _-_____

B) Unadjusted Function Point Value calculation

Definition of Complexities: Your Transactions which are derived from only from 1 Table are to be categorized as Low and if they are derive from 2 tables they can be categorized in Mid-level complexity, and

in case of >= 3 they will be placed under High level of complexity.

	Count for screens of Low level complexity (C)	Multiplier Low level complexity (M)	V1 = C * M	Count for screens of Mid-level complexity (C)	Multiplier Mid-level complexity (M)	V2 = C * M	Count for screens of High-level complexity (C)	Multiplier High-level complexity (M)	V3 = C * M	Category wise sum V1+V2+V3
EI	3	3	9	1	4	4	1	6	6	19
EO	3	4	12	1	5	5	1	7	7	24
EQ	3	3	9	1	7	7	1	6	6	22
ILF	3	7	21	1	0	0	1	15	15	36
ELF	0	5	0	0	7	7	0	10	10	17
								Unadjusted Function Point Value =		**118**

C) Value Adjustment Factor (VAF) calculation

Note: Calculate Value Adjustment Factor, where any 5 "General System Characteristics (GSC) must have a value above 2. Also show respect Quality Characteristic mapping of these 5 factors.

	Quality Characteristic	Weight (0-5)		Quality Characteristic	Weight (0-5)
1.		3	8.		3
2.		2	9.		2
3.		1	10.		4
4.		4	11.		1
5.		5	12.		3
6.		0	13.		2
7.		1	14.		0

Value Adjustment Factor (VAF) = 31

D) Technology Complexity Factor calculation

TCF = 0.65 + (VAF * 0.01)
= 0.65 +(31*0.01)
= 0.96

E) Adjusted Function Point Value (AFPV) or Function Point Value (FP) Calculation

AFPV = _ Unadjusted Function Point * TCF
= 118 * 0.96
= 113.28

F) Conversion of AFPV in to LOC Size metric

the number of LOCs per FP for C# language 54 and check other languages from https://www.qsm.com/resources/function-point-languages-table, ASP 51 and VB.net 52

Project Size in LOC = AFPV * LOC/FP

Project Size in LOC = 113.28 * 54 = 6117.12 LOC

G) Software Size:
Software Size for COCOMO: 9.763 KLOC
Software Type: Business
Model Mode: Cocomo I – Basic – ORGANIC (0 – 50 KLOC)

a) Effort Estimation: Equation
2.4 * 9.494 ^ 1.05 = E
E = 26.25

b) Schedule Estimation: Equation
2.5 * E ^ 0.4 months = S
S= 2.5 * **26.25**^0.4
S = 9.23

c) Productivity Estimation: Equation
Loc/E = 9763/26.25=371.92

d) Average Loading Estimation: Equation
E/S = 26.26/9.23
E/S = 2.84

e) Average Salary of Technical Staff (AS): Equation
Assume = 50,000 RS

f) Cost for Salary (Cs): Equation
E * Avg salary = Cs
Cs = **26.25*** 50000
Cs = 1312500

g) Budgeted Cost of Project (Cb): Equation
Cs + Cs * X% = Cb
Cb = 3510385 + (2% of 3510385)
Cb =3510385 +70207.7
Cb = 3580692.7

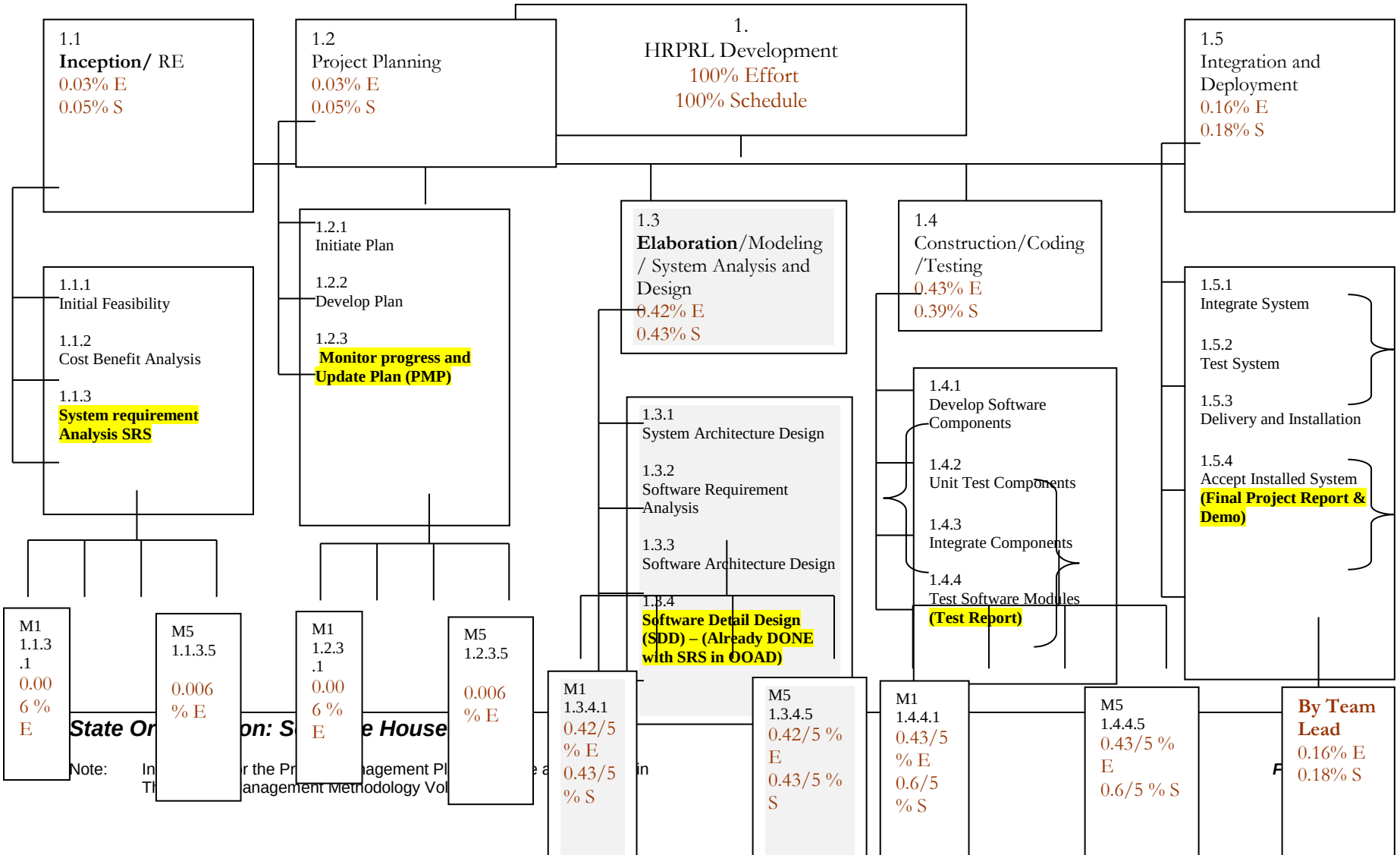
G) Software Size: 6117.12
Software Size for COCOMO: 6.117 KLOC
Software Type: Business/ Utility/Embedded
Model Mode: Cocomo I – Basic – ORGANIC (0 – 50 KLOC) / Semi detached/Embedded

h) Effort Estimation: Equation
2.4 * 6.117 ^ 1.05 = E
E = 16.0722

2. Calculate the phase-wise percentage distribution wise E and S values as given in detailed COCOMO detailed model.

H) Distribution of Effort and Schedule among Different phases of SDLC							
E = _____70.2077_____ **S = _____13.6928_____**							
Plan and Requirement		**Modeling / System Design & Detailed Design**		**Module Coding and Unit Testing**		**Integration & Deployment**	
0.06 * E =	0.10 * S =	(0.16+0.26) * E =	(0.19+0.24) S =	0.42 * E =	0.39 * S =	0.16 * E =	0.18 * S =
4.212	1.36928	29.487	5.8879	29.4872	5.3401	11.233	2.464

3. Now adding percentage distribution as given in detailed COCOMO model in the WBS phase-wise.



State Or on: S e House

Note: In r the Pr agement Pl e a in
Th anagement Methodology Vol

4. **Now convert WBS contents in a Tabular format in order to make a GANTT CHART.**

Activity #	Activity Name	Activity Name Description	# of Days	Start Date	Dependency on previous tasks	Milestone
1.1	**RE**	**Requirement Engineering**	**28**	**24/1/2021**	**none**	**21/2/2021**
1.1.1	**Initial Feasibility**		3	24/1/2021	None	27/1/2021
1.1.2	**Cost Benefit Analysis**	Analysis of cost	3	27/1/2021	None	30/1/2021
1.1.3	**System requirement Analysis SRS**	**Gather info (SRS)**	**6**	30/1/2021	None	5/2/2021
1.1.3.1	System requirement Analysis SRS **for Module 1**	Gather info for module 1	3	5/2/2021	None	8/2/2021
1.1.3.2	System requirement Analysis SRS **for Module 2**	Gather info for module 2	3	8/2/2021	None	11/2/2021
1.1.3.3	System requirement Analysis SRS **for Module 3**	Gather info for module 3	3	11/2/2021	None	14/2/2021
1.1.3.4	System requirement Analysis SRS **for Module 4**	Gather info for module 4	3	14/2/2021	None	17/2/2021
1.1.3.5	System requirement Analysis SRS **for Module 5**	Gather info for module 5	3	17/2/2021	None	21/2/2021
1.2	**Project Planning**	**Project Management Planning**	**16**	**15/3/2021**	**1.1**	**5/4/2021**
1.2.1	Develop plan	Development of project plane	1	**15/3/2021**	**RE**	**16/3/2021**
1.2.2	Implement plan	Implementation of project plane	1	**16/3/2021**	**RE**	**17/3/2021**

1.2.3	Monitor Progress	Take review on each phase	1	**17/3/2021**	**RE**	**18/3/2021**
1.2.3.1	Monitor Progress for module 1	Planning and monitor progress for module 1	1	**18/3/2021**	**RE**	**19/3/2021**
1.2.3.2	Monitor Progress for module 2	Planning and monitor progress for module 2	1	**19/3/2021**	**RE**	**20/3/2021**
1.2.3.3	Monitor Progress for module 3	Planning and monitor progress for module 3	1	**20/3/2021**	**RE**	**21/3/2021**
1.2.3.4	Monitor Progress for module 4	Planning and monitor progress for module 4	1	**21/3/2021**	**RE**	**22/3/2021**
1.2.3.5	Monitor Progress for module 5	Planning and monitor progress for module 5	1	**22/3/2021**	**RE**	**23/3/2021**
1.3	**System architecture design**	**Develop Architecture System Design**	1	**23/3/2021**	**planning**	**24/3/2021**
1.3.1	System requirement	Analysis	1	**24/3/2021**	**Planning**	**25/3/2021**
1.3.2	Software architecture design	Implement Design	1	**25/3/2021**	**Planning**	**26/3/2021**
1.3.3	System detail design	Develop System detail design	1	**26/3/2021**	**Planning**	**27/3/2021**
1.4	**Construct, Coding and Testing**	Implementation of software	1	**27/3/2021**	**1.2**	**28/3/2021**
1.4.1	Develop software Components	Implementation of software	1	**28/3/2021**	**Design**	**29/3/2021**
1.4.2	Unit test components	Implementation of software	1	**29/3/2021**	**Design**	**30/3/2021**
1.4.3	Integrate components	Test for every Module	1	**30/3/2021**	**Design**	**31/3/2021**
1.4.4	Test software Module	Test at end	1	**31/3/2021**	**Design**	**01/4/2021**

1.5	**Integrate and development**	Development of a project	1	**01/4/2021**	**Construction /coding/ testing**	**02/4/2021**
1.5.1	Integrate system	Combine module	1	**02/4/2021**	**Construction /coding/ testing**	**03/4/2021**
1.5.2	Test System	Test all project	1	**03/3/2021**	**Construction /coding/ testing**	**04/3/2021**
1.5.3	Delivery and installation	Installation / Final test after deploy a project	1	**4/4/2021**	**Construction/ coding/ testing**	**5/4/2021**

6. Work Product Identification

Provide a list of all deliverables required by the project, the date due and the person responsible for the deliverable. Pick Last activities from each phase they are deliverables.

Deliverable Name	***Due Date***	***Date Delivered***	***Point of Contact***
SRS by Member 1	21/2/2021	22/2/2021	9760
SRS by Member 2	21/2/2021	21/2/2021	9910
SRS by Member 3	21/2/2021	21/2/2021	9763
SRS by Member 4	21/2/2021	21/2/2021	9646
SRS by Member 5	21/2/2021	21/2/2021	9779
PMP by Member 1	5/4/2021	5/4/2021	9760
PMP by Member 2	5/4/2021	5/4/2021	9910
PMP by Member 3	5/4/2021	5/4/2021	9763
PMP by Member 4	5/4/2021	6/4/2021	9646
PMP by Member 5	5/4/2021	5/4/2021	9779

7. SCHEDULE

Provide the project schedule, using a Gantt chart. The schedule must include milestones, task dependencies, task duration, work product delivery dates, quality milestones (reviews/audits/inspections), configuration management milestones, and action items (with deadlines and responsibilities).

	Task Name	Work	Duration	Start	Finish	Details	S
18	**Design**	**120 hrs**	**14.5 days**	**Mon 1/26/04**	**Fri 2/13/04**	Work	
19	Review preliminary software specifications	16 hrs	2 days	Mon 1/26/04	Wed 1/28/04	Work	
	Analyst	*16 hrs*		*Mon 1/26/04*	*Wed 1/28/04*	Work	
20	Develop functional specifications	40 hrs	5 days	Wed 1/28/04	Wed 2/4/04	Work	
	Analyst	*40 hrs*		*Wed 1/28/04*	*Wed 2/4/04*	Work	
21	Develop prototype based on functional specifications	32 hrs	4 days	Wed 2/4/04	Tue 2/10/04	Work	
	Analyst	*32 hrs*		*Wed 2/4/04*	*Tue 2/10/04*	Work	
22	Review functional specifications	16 hrs	2 days	Tue 2/10/04	Thu 2/12/04	Work	
	Management	*16 hrs*		*Tue 2/10/04*	*Thu 2/12/04*	Work	
23	Incorporate feedback into functional specifications	8 hrs	1 day	Thu 2/12/04	Fri 2/13/04	Work	
	Management	*8 hrs*		*Thu 2/12/04*	*Fri 2/13/04*	Work	
24	Obtain approval to proceed	8 hrs	4 hrs	Fri 2/13/04	Fri 2/13/04	Work	
	Management	*4 hrs*		*Fri 2/13/04*	*Fri 2/13/04*	Work	
	Project manager	*4 hrs*		*Fri 2/13/04*	*Fri 2/13/04*	Work	
25	Design complete	0 hrs	0 days	Fri 2/13/04	Fri 2/13/04	Work	
26	**Development**	**264 hrs**	**21.75 days**	**Mon 2/16/04**	**Tue 3/16/04**	Work	
27	Review functional specifications	8 hrs	1 day	Mon 2/16/04	Mon 2/16/04	Work	
	Developer	*8 hrs*		*Mon 2/16/04*	*Mon 2/16/04*	Work	
28	Identify modular/tiered design parameters	8 hrs	1 day	Tue 2/17/04	Tue 2/17/04	Work	
	Developer	*8 hrs*		*Tue 2/17/04*	*Tue 2/17/04*	Work	
29	Assign development staff	8 hrs	1 day	Wed 2/18/04	Wed 2/18/04	Work	
	Developer	*8 hrs*		*Wed 2/18/04*	*Wed 2/18/04*	Work	
30	Develop code	120 hrs	15 days	Thu 2/19/04	Wed 3/10/04	Work	
	Developer	*120 hrs*		*Thu 2/19/04*	*Wed 3/10/04*	Work	
31	Developer testing (primary debugging)	120 hrs	15 days	Tue 2/24/04	Tue 3/16/04	Work	
	Developer	*120 hrs*		*Tue 2/24/04*	*Tue 3/16/04*	Work	
32	Development complete	0 hrs	0 days	Tue 3/16/04	Tue 3/16/04	Work	
33	**Testing**	**280 hrs**	**48.75 days**	**Mon 2/16/04**	**Thu 4/22/04**	Work	
34	Develop unit test plans using product specifications	32 hrs	4 days	Mon 2/16/04	Thu 2/19/04	Work	
	Testers	*32 hrs*		*Mon 2/16/04*	*Thu 2/19/04*	Work	
35	Develop integration test plans using product specifica	32 hrs	4 days	Mon 2/16/04	Thu 2/19/04	Work	

Work Packages, Tasks & Activities		Week											
		1	2	3	4	5	6	7	8	9	10	11	12
Concept Exploration	Internal Case Study												
	Communicate with CRM												
Initial Project Plan	SPMP Pass #1												
	Review by CRM												
	SPMP Pass #2												
Travel & Orientation	Meeting with CRM Representatives												
	Meeting with 26 programmers												
	Recruiting into Organizational Chart												
	OOP Training												
Initial SRS	SRS Pass #1												
	Prototype 1 (Screens)												
	SRS Review by Team												
Final SPMP	Pass #3												
Final SRS	SRS Review as per SPMP												
	SRS Submission to CRM												
Design	High level Design												
	High Level Review												
	Prototype 2												

	Detail Level Design												
	Detail Level Review												
	Prototype 3												
System Construction	Source Code & Executable Program												
	Review by CRM												
System Verification & Validation	Testing Summary Report												
	Review by CRM												
	Customer Acceptance Feedback												
System Delivery	System Delivery & Maintenance												

8. Estimated Cost at Completion

Provide an estimated cost at completion, which is an assessment of the total effort at completion of the contract.

		Analysis in Hours					***Analysis in Dollars***				
WBS No.	***Activity Description***	***Budget Hours***	***Actual Hours***	***Est. to Complete remaining work***	***Est. @ Complete of project***	***Variance (+ = More)***	***Budget $***	***Actual $***	***Est. to Complete***	***Est. @ Complete***	***Variance (+ = More)***
				A+ @	***@ = B-A***	***a-b/a***					

9. Resource Loading Profiles - Staffing

Provide a staffing plan that shows the number of personnel, by type, that will be required on the project on a monthly basis.

Organization	**Liaison- interfaces**	**Contact Information**
Customer: APMM	Masood	872874287
Subcontractor: None	Hasssa Habib	87287427887
Software Quality Assurance: CRM	Sumair ul haq	873873879838
Software Configuration Management: Team 2	Muhammad Hassaan	8234874387837
Change Control: Team 2	M . Osama	7367439743889

Role	**Description**	**Person**
Project Leader	Leads project team; responsible for project deliverables	Masood Arif
Project Management Team/Analysts	Assisting in building SPMP, SRS and prototype, as well as doing the necessary requirement and risk analysis for the project	Hasssa Habib Sumair ul haq
Project Development Manager	Leads Chinese software developers; responsible for project deliverables	Muhammad Hassaan M .Osama
Programming Manager	Responsible for the communication between the Management Team and the rest of the software development team; the Programming Manager is also responsible for reallocating the human resources and equipment of the project.	Masood Arif

Software Managers	Responsible for managing the team of 7 people; does the design of the software; after reviewing reports from Test Engineer decides whether code needs to be sent back to Development Engineer for improvement or to be send to Quality Assurance Manager for quality assurance phase	Hassan Habib
Development Engineers	Responsible for designing of software and distributing work among Code Developers	Sumair ul haq
Code Developers	Responsible for writing programming code	Masood Arif
Test Engineer	Responsible for testing and validation process in his/her team; leads Test Technician in the testing process and reports the results of the testing process to the software manager	Masood Arif
Test Technician	Performs the testing and validation procedure; reports found errors to Test Engineer	Muhmmad Osama
Quality Assurance Manager	Responsible for quality assurance; reports to Software Manager and Project Development Manager	Sumair ul haq
Quality Engineer	Performs quality assurance procedure; reports the results to Quality Assurance Manager	Muhammad Hassaan

10. Project Requirements

Provide a detailed listing of project requirements, with references, to the statement of work, work breakdown structure, and specifications.

No.	Requirement	RFP Reference Not submitted by the client in Adv.	SOW Reference	WBS Task Reference	Specification Reference	Date Completed	Comments/Clarification
1.	**3.1.1 Login**	**N/A**	**1**	**1.1.3.1**	**3.1.1**	**5/4/2021**	**Good**
2.	**3.1.2 Module 1 CRUDS**	**N/A**	**2**	**1.1.3.2**	**3.1.2**	**5/4/2021**	**Improvement**
3.	**3.1.3 Module 2 CRUDS**	**N/A**	**3**	**1.1.3.3**	**3.1.3**	**5/4/2021**	**Nice**
4.	**3.1.4 Module 3 CRUDS**	**N/A**	**4**	**1.1.3.4**	**3.1.4**	**5/4/2021**	**Well performed**
5.	**3.1.5 Module 4 CRUDS**	**N/A**	**5**	**1.1.3.5**	**3.1.5**	**5/4/2021**	**Improvement**
6.	**3.1.6 Module 5 CRUDS**	**N/A**	**6**	**1.1.3.6**	**3.1.6**	**5/4/2021**	**Good**

SOW = Statement of Work

11. *Risk Identification*

Provide a description of all risks identified for the project. A risk is anything that might detrimentally affect the successful completion of the project if left unaddressed. The contractual, management, and technical risks associated should be identified and assessed as to the probability of the risk occurring, the cost to correct if the risk occurs, the impact of the risk on the project, and the suggested mitigation activities and cost of mitigation.

Risk Worksheet

Last Risk Assessment Date: Prepared by: Hassan Habib Khan

Risk Category/ Event	*Loss Hours*	*Probability*	*Risk Hours*	*Previous Risk Hours*	*Preventive Measures*	*Contingency Measures*	*Comments*
Governance Risk	**120**	**0.8**	**48**	**-**	**Our Lawyer will handle all the situation accordingly.**	**Consult the court or ministers to resolve the issues with government.**	**CRITICAL**
Schedule Risk	**24**	**0.2**	**12**	**-**	**We will have a tight schedule and will make a schedule. According to our schedule project will be completed and deployed before the time.**	**If our schedule is not as per planned we already made our schedule in a way that we will do the development before time, we will utilize that time as well but if we are too behind schedule our developers have to work overtime.**	**MEDIUM**
Operational Risk	**24-48**	**0.5**	**24**	**-**	**Avoid poor implementations and process problems.**	**Our managers will be restricted to overcome problems and start implementing new strategies.**	**LOW**
Software Risk	**24**	**0.3**	**24**	**-**	**Hire professionals. Select the**	**If we faced this type of emergency we will switch the software technology at**	

					appropriate software for development, stable servers and project management. We will use the best and most stable servers for every software to avoid future problems.	**once which is currently in use in our organization. We are already using the best servers so we don't have to worry about that but for the software performance and stability we will use the most talented team of ours to overcome the tie wasted and complete the project fully.**	**MEDIUM**
Staff experience and professionalism .	**24-72**	**0.3**	**48**	**-**	**Our organization hires the junior developers who are under the teams of professional and experienced team leaders. We also have a team of experienced developers which can handle every type of situations and can work under pressure.**	**If we faced some type problems form our staff we will right away send the project to our experienced developers team or in case they are already stuck in a project we will hire a professional which can team up with our junior developer's leader and can finish the work according to schedule.**	**CRITICAL**
Natural Hazard risk	**-**	**0.5**	**-**	**-**	**Natural Hazards are not something that can be predicted or controlled but**	**If the situation is under control there will be no off. If the situation is critical but will be under control in few days we can either work**	

					humans but we have to be prepared for any type of situation. According to our scheduling we want to complete the project before given time so in this case also we can utilize those leftover days. If the situation is like COVID-19's hazard our developers will remotely.	**remotely or take some rest, it all depends on the schedule. But if the situation is critical and we can't predict when it will be under control our teams will work remotely.**	**CAN BE CRITICAL**
Software Performance and Security Risk	**-**	**0.4**	**-**	**-**	**We are using latest and stable technologies but we will still prototype our modules and test the software with huge dummy data and our security team will try to catch the loop holes. Our maintenance team will be ready to handle the panicked situation**	**Software performance is not being compromised form our organization but if we faced this type of situation our maintenance team will right away check the software bugs and our security team will be ready if there something hacking activity detected.**	**MEDIUM**

					accordingly.		
Poor Management	**48-72**	**0.2**	**48**	**-**	**We will hire professionals for our organization who can face any type of situation and can handle the planning of difficult software. Proper strategies and project planning will be made before starting any project and everyone will act according to the plan.**	**Our project managers will be asked to revise the project planning and strategies. If they can't handle the situation we can compromise our management we will right away send project planning to another professional team manager who will work the previous manager to handle the situation with new and better strategies.**	**MEDIUM**
Budget Changes	**48-72**	**0.1**	**60**	**-**	**We will sign the proper legal contract in which every small detail will be mentioned to avoid future difficulties.**	**However, if the client wants to change the budget we will not leave our client but will act accordingly and we have to compromise on development. Old codes will be refactored, there will be no tough schedule and every situation will be handled by juniors.**	**LOW**

General Risk Analysis Comments:

Risk Items	Risk Management Techniques
Personnel Shortfalls	Staffing with top talent, job matching; team building; morale

	building; cross training; pre-scheduling key people
Unrealistic schedules and budgets	Detailed, multi source cost and schedule estimation; design to cost; incremental development; software reuse; requirement scrubbing
Developing the wrong software functions	Organizational analysis; mission analysis; ops-concept formulation; user surveys; prototyping; early users' manuals
Developing the wrong user interface	Task analysis; prototyping; scenarios; user characterization (functionality, style, workload)
Gold Plating	Requirement scrubbing; prototyping; cost-benefit analysis; design to cost
Continuing stream of requirement changes	High change threshold; information hiding; incremental development (defer changes to later increments)
Shortfalls in externally furnished components	Benchmarking; inspections; reference checking; compatibility analysis
Shortfalls in externally performed tasks	Reference checking; pre-award audits; award-fee contracts; competitive design or prototyping team building
Real-time performance shortfalls	Simulation; benchmarking; modeling; prototyping; instrumentation; tuning
Straining computer-science capabilities	Technical analysis; cost-benefit analysis; prototyping; reference checking

Risk Management:

1	Identify the project's top10 risk items
2	Present a plan for resolving each risk item
3	Update list of top risk items, plan, and results monthly
4	Highlight risk-item status in monthly project reviews. Compare with previous month's ranking status
5	Initiate appropriate corrective actions

12. Configuration Management Plan

Provide a configuration management plan that defines the person responsible for project configuration management, the procedures that will be used, the planned configuration items, planned release dates for configuration items, and resources required to conduct CM.

CM Responsibility

Manager:

Additional Staff for CM:

Procedure Reference:

Configuration Items:. Ensure that CM is implemented throughout the project's life cycle.

No.	Item	Comments
1.	analysis	prototyping; early users' manuals
2.	risk item	Present a plan for resolving
3.	ranking status	Highlight risk-item status in monthly project reviews

Ensure that project has a repository for storing configuration items and associated CM records. Briefly describe.

responsible for project configuration management, the procedures that will be used, the planned configuration items, planned release dates for configuration items, and resources required

13. Quality Plan

Provide a quality plan that defines the person responsible for project quality assurance, the procedures that will be used and resources required to conduct quality assurance.

QA Responsibility

Manager:

Additional Staff for QA:

Procedure Reference:

Planned Quality Event: Ensure that QA is implemented throughout the project's life cycle. Dates include QA audits and reviews, design walkthroughs and other project activities that QA staff will participate in.

No.	Item	Comments
1.	Gold Plating	Initiate appropriate corrective actions
2.	Stream	change threshold; information hiding
3.	Shortfalls	cost-benefit analysis; prototyping; reference

Ensure that project has a repository for storing configuration items and associated QA records. Briefly describe.

Ensure that QA audits the baselines and CM activities on a regular basis. Briefly describe

14. Top Five Issues

Provide a list of known issues associated with the project, with proposed or recommended solutions.

Issue Description	***Responsible Individual***	***Open Date***	***Closure Date***	***Status***
Complete Requirement	*Masood Arif*			*Held by the complete RE procedure*
Development Life Cycle	*Hassan habib*			*The modeling procedure of defining sustainability*
Views	*Muhammad Osama*			*The user friendly view should be appropriate defining.*
Error On uploading	*Sumair ul haq*			*The hosting file size nor enough*
Issue Description	***Responsible Individual***	***Open Date***	***Closure Date***	***Status***

15. Action Item Status

Maintain a list of action items, including a description of the item, a point of contact a date by which action should be taken and a description of the action taken to close items.

Action Item #	***Action Item Description***	***Responsible Individual***	***Open Date***	***Closure Date***	***Status***
	The Input model	*Sumair ul haq*			*Resolve*
	Contract	*Muhammad Hassan*			*Sustain*