

<u>Sr no</u>	<u>Staff Size And Experience (SS)</u>	<u>Response</u>	<u>Impact</u>
1	Are the best people available?	Y	4
2	Do the people have the right combination of skills?	Y	3
3	Are enough people available?	Y	4
4	Are staff committed for entire duration of the project?	Y	4
5	Will some staff be working only part time on this project?	N	3
6	Do staff have the right expectations about the job at hand?	Y	3
7	Have staff received necessary training?	N	2
8	Will turnover among staff be low enough to allow continuity?	Y	4

Probability = 25% Impact = 3.37

<u>Sr. No</u>	<u>Development Environment Risk (DV)</u>	<u>Response</u>	<u>Impact</u>
1	Is a software project management tool available?	Y	3
2	Is a software process management tool available?	Y	3
3	Are tools for analysis and design available?	Y	3
4	Do analysis and design tools deliver methods that are appropriate for the product to be built?	Y	4
5	Are compilers or code generators available and appropriate for the product to be built?	Y	4
6	Are testing tools available and appropriate for the product to be built?	Y	3
7	Are software configuration management tools available?	Y	3
8	Does the environment make use of a database or repository?	Y	3
9	Are all the software tools integrated with one another?	Y	4
10	Have members of the project teams received training in each of the tools?	N	2
11	Are local experts available to answer questions about the tools?	Y	4
12	Is on-line help and documentation for the tools adequate?	Y	3

Probability = 8.33% Impact = 3.25

Sr. No	Customer Related Risk(CC)	Response	Impact
1	Have you worked with the customer in the past?		
2	Does the customer have a solid idea of what is required? Has the customer taken the time to write this down?		
3	Will the customer agree to spend time in formal requirements gathering meetings to identify project scope?		
4	Is the customer willing to establish rapid communication links with the developer?		
5	Is the customer willing to participate in reviews?		
6	Is the customer technically sophisticated in the product area?		
7	Is the customer willing to let your people do their job that is, will the customer resist looking over your shoulder during technically detailed work?		
8	Does the customer understand the software engineering process?		

Probability = 12.5 % Impact = 3.25

<u>Sr. No</u>	<u>Technical Issue's Risks(TI)</u>	<u>Response</u>	<u>Impact</u>
1	Are facilitated application specification techniques used to aid in communication between the customer and developer?		
2	Are specific methods used for software analysis?		
3	Do you use a specific method for data and architecture designs?		
4	Is more than 90% of your code written in a high order language?		
5	Are specific conventions for code documentation defined and used?		
6	Do you use a specific method for test case design?		
7	Are software tools used to support software planning and tracking activities?		
8	Are configuration management software tools used to control and track change activity throughout the software process?		
9	Are software tools used to support the software analysis and design process?		
10	Are tools used to create software prototypes?		
11	Are software tools used to support the testing process?		
12	Are software tools used to support the production and management of documentation?		
13	Are quality metrics collected for all software projects?		
14	Are productivity metrics collected for all software projects?		

Probability = 28.57% Impact = 2.857

<u>Sr. No</u>	<u>Technology to be built risks(TP)</u>	<u>Response</u>	<u>Impact</u>
1	Is the technology to be built new to your company?		
2	Do the customer requirements demand the creation of new algorithms, input or output technology?		
3	Does the software interface with new or unproven hardware?		
4	Does the software to be built interface with a database system whose function and performance have not been proven in this application area?		
5	Does the software to be built interface with vendor supplied software products that are unproven?		
6	Is a specialized user interface demanded by product requirements?		
7	Do requirements for the product demand the creation of program components that are unlike any previously developed by your organization?		
8	Do requirements demand the use of new analysis, design, or testing methods?		
9	Do requirements demand the use of unconventional software development methods, such as formal methods, AI-based approaches, artificial neural networks?		
10	Do requirements put excessive performance constraints on the product?		
11	Is the customer uncertain that the functionality requested is “do-able”?		

Probability =72.7% Impact =2.72

<u>Sr. No</u>	<u>Business Impact Risk(BI)</u>	<u>Response</u>	<u>Impact</u>
1	Effect of this product on company revenue?	H	1
2	Visibility of this product by senior management?	H	2
3	Reasonableness of delivery deadlines?	H	2
4	Number of customers who will use this product and the consistency of their needs relative to the product?	H	2
5	Number of other products/systems with which this product must be interoperable?	L	2
6	Sophistication of end users?	L	3
7	Amount and quality of product documentation that must be produced and delivered to the customer?	L	4
8	Governmental constraints on the construction of the product?	L	4

9	Costs associated with late delivery?	L	3
10	Costs associated with a defective product?	H	2

Probability =50% Impact =2.5

<b>Sr no</b>	<b>Project Size Risk(PS)</b>	<b>Response</b>	<b>Impact</b>
1	Estimated size of the product in LOC or FP?	5577LOC	3
2	Degree of confidence in estimated size estimate?	H	3
3	Estimated size of product in number of programs, files, transactions?	H	3
4	Percentage deviation in size of product from average for previous products?	L	3
5	Size of database created or used by the product?	H	3
6	Number of users of the product?	H	1
7	Number of projected changes to the requirements for the product? Before delivery? After delivery?	L	3
8	Amount of reused software?	N/A	

Probability =28.57% Impact =2.71

<b>Sr. No</b>	<b>Process Definition Risk(PD)</b>	<b>Response</b>	<b>Impact</b>
1	Does your senior management support a written policy statement that emphasizes the importance of a standard process for software development?		
2	Has your organization developed a written description of the software process to be used on this project?		
3	Are staff members signed-up to the software process as it is documented and willing to use it?		
4	Is the software process used for other projects?		
5	Has your organization developed or acquired a series of software engineering training courses for managers and technical staff?		
6	Are published software engineering standards provided for every software developer and software manager?		
7	Have document outlines and examples been developed for all deliverables defined as part of the software process?		
8	Are formal technical reviews of the requirements specification, design, and code conducted regularly?		
9	Are formal technical reviews of test procedures and test cases conducted regularly?		
10	Are the results of each formal technical review documented,		

	including defects found and resources used?		
11	Is there some mechanism for ensuring that work conducted on a project conforms with software engineering standards?	Y	3
12	Is configuration management used to maintain consistency among system/software requirements, design, code, and test cases	Y	3
13	Is a mechanism used for controlling changes to customer requirements that impact the software?	Y	3
14	Is there a documented statement of work, software requirements specification, and software development plan for each subcontract?	Y	3
15	Is a procedure followed for tracking and reviewing the performance of subcontractors?	NA	

Probability = 14.28% Impact = 3

### Risk Table

<b><u>RISK</u></b>	<b><u>CATEGORY</u></b>	<b><u>PROBABILITY</u></b>	<b><u>IMPACT</u></b>	<b><u>RMM</u></b>
Staff size and experience risks	SS	25	3.37	
Development Environment risks	DV	8.33	3.25	
Customer characteristics risks	CC	12.5	3.25	
Technical issues risks	TI	28.57	2.857	
Technology to be built risks	TP	72.7	2.72	
Business impact risks	BI	50	2.5	
Product size risks	PS	28.57	2.71	
Process definition risks	PD	14.28	3	

### Risk Table (Sorted)

<b><u>RISK</u></b>	<b><u>CATEGORY</u></b>	<b><u>PROBABILITY</u></b>	<b><u>IMPACT</u></b>	<b><u>RMM</u></b>
Process definition risks	PD	30.00%	2.5	
Product size risks	PS	31.00%	2.71	

Business impact risks	BI	29.00%	2.72	
Technology to be built risks	TP	28.00%	2.857	
Technical issues risks	TI	32.00%	3	
Customer characteristics risks	CC	27.00%	3.25	
Development Environment risks	DV	26.00%	3.25	
Staff size and experience risks	SS	25.00%	3.37	

## RMMM PLAN

RISK INFORMATION SHEET			
<u>Risk ID:</u> 1	<u>Date:</u> 17/3/17	<u>Probability:</u> 30%	<u>Impact:</u> 2.5(Critical)
<b>Description:</b> A series of software engineering training courses for managers and technical staff is not conducted.			
<b>Refinement/context:</b> Sub-condition 1: Given that there are no training courses then staff will find it difficult to deal with the new software. Sub-condition 2: Given that there are no training courses then the project schedule is affected.			
<b>Mitigation/monitoring:</b> 1. Conduct training courses. 2. Assign experienced staff.			
<b>Management plan:</b> Arrange workshops seminars or meetings for making the staff understand the project. Encourage the staff to attend them. Also reschedule the project.			
<b>Current status:</b> 17/3/17: Mitigation Steps Initiated			
<u>Originator:</u> Omkar Patil	<u>Assigned:</u> Taher Pardawala		

<u>Risk ID:</u> 2	<u>Date:</u> 17/03/2017	<u>Probability:</u> 31%	<u>Impact:</u> 2.71(Critical)
<b>Description:</b> Number of users for the product.			

<b>Refinement/Context:</b> Sub condition: Sudden change in number of users due to changes in the organizational framework.	
<b>Mitigation/Monitoring:</b> 1. Account for sudden changes in organizational framework in response to changing market conditions. 2. Consultation with the HR department.	
<b>Management plan:</b> Scale the database to support new users' data for the new framework.	
<b>Current Status:</b> 18/3/17: Mitigation steps initiated	
<b>Originator:</b> Taher Pardawala	<b>Assigned:</b> Omkar Patil

<b>Risk ID:</b> 3	<b>Date:</b> 17/03/2017	<b>Probability:</b> 29%	<b>Impact:</b> 2.72(Critical)
<b>Description:</b> Number of other products/systems with which this product must be interoperable			
<b>Refinement/Context:</b> Sub-condition 1: Given that the new system should be compatible with existing legacy systems, the system interfaces must be compatible. Sub-condition 2: During development of the system, the existing systems are changed/updated.			
<b>Mitigation/Monitoring:</b> 1. Check existing system interfaces and properly document their API constraints. 2. Keep the new system's end points modular – enabling changes in interoperable systems.			
<b>Management plan:</b> Developers of the system should be kept on call during development and initial support stages.			
<b>Current Status:</b> 18/03/17: Mitigation Steps initiated			
<b>Originator:</b> Omkar Patil	<b>Assigned:</b> Taher Pardawala		