Team Member Name:	Team Member UID:
Manish Jadhav	2023301012
Mayur Solankar	2023301018

EXPERIMENT NO:	8
AIM:	Perform risk analysis for selected case study(HMS) and make a RMMM for the same.

Problem Statement:	The Hostel Management System (HMS) project addresses the challenges faced in efficiently managing hostels in today's world. With a focus on enhancing student satisfaction, the HMS aims to provide a comprehensive solution. It offers user management for administrators, students and visitors, simplifies room booking, facilitates smooth check-in/check-out processes, manages billing and payments, monitors room availability, maintains student profiles, and provides reporting and analytics tools. The system ensures data security and privacy compliance while offering a user-friendly interface accessible via a web app. By automating administrative tasks and optimizing room management, the HMS benefits hostel owners, while also improving the student experience and modernizing hostel operations.

Theory :-

Risk Identification (Risk Item List):

● **Product size risk:** The scope of the project may increase like Third Party Payments or Bill Payments, which may substantially increase the size of the project.

● **Business Impact:** Management may cause an issue if proper funds are not available to provide the desired changes, as it is a non profit project; earnings from the end user are out of the question.

● **Customer characteristics:** The app should in multilingual, as it may be used all across the country, the problem of language barrier may arise where, and some user may not understand English and Hindi.

● **Process definition:** If the process definition is not properly implemented by all the team members of the development team, many merge conflicts and inconsistency may occur which can be hazardous.

● **Development environment:** It may happen that Oracle Enterprise(the database to host and store information) may exceed its capacity(10,000 logins per day) and this may lead to either server crash or login failure.

● **Technology to be built:** As the project scope increases, the complexity of the project will also increase and all the members of the development may not be familiar with the new technology to be implemented.

● **Staff size:** The development team may not be familiar with new technology advancements that need to be considered while increasing the scope of the project.

RISKS	CATEGORY	PROBABILITY	LOSS	EXPOSURE	IMPACT	RMMM
Funding will be lost	CU	25%	10000	2500	Low	
Customer will change requirements	PS	85%	20000	17000	High	Fig.2
Lack of training on tools	TE	80%	20000	16000	High	
Software goes out of date	TE	30%	10000	3000	Low	
Loss of data	TE	25%	50000	12000	High	Fig.3
Miscommuni -cation between team members	ST	40%	10000	4000	Low	

Fig.1

Risk ID: **1**	**Classification:** CU	**Report Date:** 10/11/2024
Description: There is a low chance of losing funding if critical milestones are not met on time, which could impact the overall project deliverables and goals.		
Probability: 25%	**Impact: Low**	**Risk Exposure:** 2500
First Indicator: Delays in achieving project milestones and lack of regular updates from stakeholders.		
Mitigation Approaches: 1) Monitor milestone progress closely and report status regularly to stakeholders. 2) Ensure contingency plans are in place to address potential funding issues.		
Date Started: 25/10/2024	**Date to Complete:** 02/11/2024	**Owner:** Project Manager
Current Status: 8/11/24 - Monitoring milestone progress		
Contingency Plan: If funding loss becomes imminent, negotiate with stakeholders for additional resources or extend project deadlines to meet objectives.		
Trigger for Contingency Plan: When delays in milestone completion directly threaten funding continuity and project deliverables.		

Risk ID: 2	**Classification:** Requirements	**Report Date:** 10/11/2024
Description: There is a high chance of the customer changing his demands midway during the application development which may result in modification of developed modules and may also disturb the planning schedule.		
Probability: 85%	**Impact:** High	**Risk Exposure:** 17000
First Indicator: Frequent communication from the customer regarding changes or new requests not originally defined in the project scope.		
Mitigation Approaches: 3) Contact customers after development of each module for conformance. 4) Maintain a margin in the schedule to accommodate changes in the customer's requirements.		
Date Started: 25/10/2024	**Date to Complete:** 02/11/2024	**Owner:** Project Manager
Current Status: 8/11/24 - Mitigation steps initiated		
Contingency Plan: In case of excessive changes causing project delays, evaluate the impact on the project timeline and budget.		
Trigger for Contingency Plan: When the cumulative impact of customer-requested changes threatens the project's ability to meet its original objectives within the defined constraints.		

Fig.2

Risk ID: 4	**Classification:** TE	**Report Date:** 10/11/2024
Description: There is a chance of the software becoming outdated, which could lead to compatibility issues, increased maintenance costs, or reduced efficiency.		
Probability: 30%	**Impact:** Low	**Risk Exposure:** 3000
First Indicator: The software shows reduced compatibility with newer tools or platforms, and updates are no longer provided by the vendor.		
Mitigation Approaches: • Regularly monitor software versions and updates from the vendor. • Plan for periodic upgrades or migrations to newer technologies to ensure compatibility.		
Date Started: 25/10/2024	**Date to Complete:** 02/11/2024	**Owner:** Developer
Current Status: 8/11/24 - Assessment of current software status and upgrade options underway.		
Contingency Plan: If the software becomes outdated, allocate resources to quickly transition to an alternative platform or upgraded version to minimize downtime.		
Trigger for Contingency Plan: When the software's limitations significantly impact project functionality or increase operational risks.		

Risk ID: 5	Classification: Technical	Report Date: 10/11/2024

Description:

In any software project, there is a possibility of the hardware getting corrupted, which can lead to a loss of all the currently stored data. This in turn will affect the promised project deadlines.

Probability: 25%	Impact: High	Risk Exposure: 12000

First Indicator: Frequent system crashes or data corruption issues.

Mitigation Approaches:

Ensure that the data is backed up in multiple hard disks and cloud accounts. Using github is a very good option.

Date Started: 25/10/2024	Date to Complete: 02/11/2024	Owner: IT Manager

Current Status: 8/11/24 - Mitigation steps initiated

Contingency Plan: In case of data loss, initiate a data recovery procedure from the latest backup.

Trigger for Contingency Plan: When data loss is confirmed and cannot be recovered through standard means.

Fig.3

Conclusion :-

By implementing a risk management framework, organizations(Like HMS) can proactively identify and address potential risks, minimize negative impacts, and seize opportunities. It helps to provide risk awareness and accountability throughout the organization(HMS), enabling better decision-making.