

### Experiment No. 9

**SEMESTER:** V (2024-2025)

**DATE OF DECLARATION:** 30/09/24

**SUBJECT:** SE

**DATE OF SUBMISSION:** 07/10/24

**NAME OF THE STUDENT:** Shaun Menezes

**ROLL NO:** 40

<b>AIM</b>	To write a RMMM plan for “ <b>Inefficiency in Timely Announcement of Holidays for Educational Institutions in Flood-Prone Areas</b> ”
<b>LEARNING OBJECTIVE</b>	The student will conduct a comprehensive assessment of risk associated with “ <b>Inefficiency in Timely Announcement of Holidays for Educational Institutions in Flood-Prone Areas</b> ”.
<b>LEARNING OUTCOME</b>	The students will be able to apply software engineering process model to the selected case study
<b>COURSE OUTCOME</b>	<b>CSL501.3:</b> Students will be able to apply software engineering process model to the selected case study
<b>PROGRAM OUTCOME</b>	<p><b>PO1:</b> Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.</p> <p><b>PO2:</b> Identify, formulate, review research, literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.</p> <p><b>PO3:</b> Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.</p> <p><b>PO9:</b> Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.</p> <p><b>PO10:</b> Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.</p>
<b>BLOOM'S TAXONOMY LEVEL</b>	Evaluate
<b>THEORY</b>	<b>RMMM plan:</b>

	<p>A risk management strategy can be included in the software project plan or the risk management steps can be organized into a separate Risk Mitigation, Monitoring and Management Plan. The RMMM plan documents all work performed as part of risk analysis and is used by the project manager as part of the overall project plan. Some software teams do not develop a formal RMMM document. Rather, each risk is documented individually using a risk information sheet (RIS). In most cases, the RIS is maintained using a database system, so that creation and information entry, priority ordering, searches, and other analysis may be accomplished easily.</p> <p>Once RMMM has been documented and the project has begun, risk mitigation and monitoring steps commence. As we have already discussed, risk mitigation is a problem avoidance activity. Risk monitoring is a project tracking activity with three primary objectives: (1) to assess whether predicted risks do, in fact, occur; (2) to ensure that risk aversion steps defined for the risk are being properly applied; and (3) to collect information that can be used for future risk analysis. In many cases, the problems that occur during a project can be traced to more than one risk. Another job of risk monitoring is to attempt to allocate origin (what risk(s) caused which problems throughout the project).</p>
<p><b>LAB EXERCISE</b></p>	<p><b>1. Risk Identification – “Inefficiency in Timely Announcement of Holidays for Educational Institutions in Flood-Prone Areas”</b></p> <p><b>Risk Assessment Checklist Reference:</b></p> <p><b>Technical Challenges:</b></p> <ol style="list-style-type: none"> <li>1. Delayed access to real-time weather updates.</li> <li>2. Ineffective dissemination of holiday announcements through traditional channels.</li> <li>3. Poor integration of weather forecasting tools with educational institution communication systems.</li> <li>4. Inadequate backup systems for power or internet outages during floods.</li> </ol> <p><b>User-Related Issues:</b></p> <ol style="list-style-type: none"> <li>1. Low adoption rates of digital communication tools by students, parents, and staff.</li> <li>2. Difficulty in reaching all stakeholders due to varying levels of technology literacy.</li> <li>3. Users relying on unofficial sources of information, leading to misinformation.</li> </ol>

**Coordination and Regulatory Challenges:**

- 1. Lack of coordination between weather agencies and educational institutions.
- 2. Delays in decision-making by local authorities regarding school closures.
- 3. Regulatory constraints on real-time data sharing between weather services and educational institutions.

**2. Risk Table for “Inefficiency in Timely Announcement of Holidays for Educational Institutions in Flood-Prone Areas”**

Risk ID	Risk Description	Probability	Impact	Risk Exposure (Probability × Impact)
R1	Delayed access to real-time weather updates	Medium	High	Medium
R2	Ineffective dissemination of holiday announcements	High	Medium	High
R3	Poor integration of weather tools with communication systems	Medium	High	Medium
R4	Inadequate backup systems for power/internet outages	High	High	High
R5	Low adoption of digital communication tools	Medium	Medium	Medium
R6	Difficulty in reaching stakeholders with varying tech literacy	Medium	Medium	Medium
R7	Reliance on unofficial sources leading to misinformation	Medium	Medium	Medium
R8	Lack of coordination between weather agencies and institutions	High	High	High
R9	Delays in decision-making by local authorities	Medium	High	Medium

	R10	Regulatory constraints on data sharing	Low	Medium	Low
	3. RMMM Plan (Risk Mitigation, Monitoring, and Management)				
	<b>Risk ID</b>	<b>Mitigation Plan</b>	<b>Monitoring Plan</b>	<b>Management Plan</b>	
	R1	Partner with reliable weather forecasting services and automate updates to institutional systems.	Monitor update latency by comparing real-time weather changes with system alerts.	If updates are delayed, consider using a more efficient weather service.	
	R2	Develop a mobile app and use automated SMS/email alerts to improve announcement dissemination.	Track delivery rates of alerts and monitor feedback from recipients.	If announcements are not reaching users, troubleshoot issues with delivery systems.	
	R3	Upgrade or integrate systems to allow seamless communication between weather forecasting tools and school platforms.	Conduct regular performance checks of integrated systems.	If integration fails, roll back to previous systems or implement new protocols.	
	R4	Establish backup communication systems (e.g., mobile networks or offline channels) during power or internet outages.	Monitor power outage trends and backup system effectiveness.	If backups fail, switch to more robust, off-grid solutions like radio networks.	
	R5	Promote the use of digital tools through training sessions for students, staff, and parents.	Track adoption rates and assess the effectiveness of the promotion strategy.	If adoption remains low, revise the training or offer more accessible alternatives.	
	R6	Offer multi-channel announcements (e.g., SMS, social media, local radio) to reach stakeholders with varying tech literacy.	Monitor feedback from users and identify gaps in outreach methods.	If gaps persist, explore additional communication options like local news.	
	R7	Encourage official channels for	Monitor instances of misinformation	If misinformation spreads, counteract it	

		information and launch awareness campaigns about misinformation.	and verify the spread of official announcements.	with frequent updates via trusted sources.
	R8	Establish early warning protocols between weather agencies and educational institutions to improve coordination.	Monitor collaboration efforts through scheduled reviews and response times.	If coordination fails, appoint a liaison or automate notifications between agencies.
	R9	Set clear decision-making timelines with local authorities and implement per-defined closure thresholds for floods.	Monitor the response times and compliance with established protocols.	If delays occur, streamline decision processes or escalate the issue to higher authorities.
	R10	Work with legal and regulatory teams to ensure real-time data sharing complies with local regulations.	Track changes in data-sharing regulations and compliance requirements.	If regulatory issues arise, delay implementation until compliance is ensured.
	<b>Group Details</b>			
	Sr. No.	Roll No.	Name of the Batch	Name of the Student
	1.	34	B	Aibal Biju
	2.	35	B	Ramya Kulkarni
	3.	40	B	Shaun Menezes
<b>REFERENCES</b>	<ol style="list-style-type: none"> <li><a href="http://www.wikihow.com/Write-a-Problem-Statement">http://www.wikihow.com/Write-a-Problem-Statement</a></li> <li><a href="http://cse.mait.ac.in/pdf/LAB%20MANUAL/EVEN%20SEM/ETCS%20354%20Object%20Oriented%20Software%20Engineering.pdf">http://cse.mait.ac.in/pdf/LAB%20MANUAL/EVEN%20SEM/ETCS%20354%20Object%20Oriented%20Software%20Engineering.pdf</a></li> </ol>			