Risk Register

# **Introduction**

Risk management involves four major phases:

1. ***Risk identification:*** Identify risks that may affect project outcome.
2. ***Risk analysis:*** Prioritise risks for subsequent ongoing management based on their likelihood of occurrence and degree of potential impact.
3. ***Risk response planning:*** Develop appropriate options and action plans to reduce the threats of specific risks to project objectives.
4. ***Risk monitoring and control:*** Identifying, analysing, and planning for newly identified risks, monitoring previously identified risks, and reevaluating existing risks to verify the planned risks response strategies for their effectiveness.

# **Risk Rating Matrix**

| ***RISK RATING***  ***KEY*** | **LOW** | **MEDIUM** | **HIGH** | **EXTREME** |
| --- | --- | --- | --- | --- |
|  | **0 – ACCEPTABLE** | **1 – ALARM**  as low as  reasonably practicable | **2 – GENERALLY UNACCEPTABLE** | **3 – INTOLERABLE** |
|  | **––––––––––––––––––**  **OK TO PROCEED** | **–––––––––––––––––– TAKE MITIGATION EFFORTS** | **–––––––––––––––––– SEEK SUPPORT** | **–––––––––––––––––– PLACE EVENT**  **ON HOLD** |
|  |  |  |  |  |
| ***RISK MATRIX*** | **ACCEPTABLE** | **TOLERABLE** | **UNDESIRABLE** | **INTOLERABLE** |
|  | **LITTLE TO NO EFFECT**  **ON EVENT** | **EFFECTS ARE FELT,**  **BUT NOT CRITICAL**  **TO OUTCOME** | **SERIOUS IMPACT**  **TO THE**  **COURSE OF ACTION**  **AND OUTCOME** | **COULD RESULT**  **IN DISASTER** |
| **IMPROBABLE** | **LOW** | **MEDIUM** | **MEDIUM** | **HIGH** |
| **RISK IS UNLIKELY**  **TO OCCUR** | **– 1 –** | **– 4 –** | **– 6 –** | **– 10 –** |
| **POSSIBLE** | **LOW** | **MEDIUM** | **HIGH** | **EXTREME** |
| **RISK WILL LIKELY**  **OCCUR** | **– 2 –** | **– 5 –** | **– 8 –** | **– 11 –** |
| **PROBABLE** | **MEDIUM** | **HIGH** | **HIGH** | **EXTREME** |
| **RISK WILL OCCUR** | **– 3 –** | **– 7 –** | **– 9 –** | **– 12 –** |

Use this matrix to fill out the risk rating in your risk register.

# **Risk Register**

Try to make this list as exhaustive as possible (at least 15 items). You can use Google Spreadsheet to manage this if you’d prefer.

|  | **Description** | **Rating** | **Impact on Project** | **Monitoring Strategy** | **Mitigation Plan** | **Person Responsible** |
| --- | --- | --- | --- | --- | --- | --- |
| 1 | Team member absent/unable to do task due to emergency | 8 | Unable to complete the allocated task within the set time frame causing last minute confusions | Having regular meetings and maintaining good communications within members | Allocate other members to work on the particular task at the earliest possible moment. | Project Manager |
| 2 | Project member has to discontinue the unit. | 8 | There will be a decrease in the number of project members. This will slow down the project progression as the items in iteration and PI planning may be decreased to reduce burden on remaining members. | Continuous communication and check-ins with team members | Ensure team members are cross-functional and work is pushed regularly. | RTE |
| 3 | Data / Code Loss | 10 | Potential loss of significant project progress, leading to delays and rework | Regularly track source code on GitLab. | Prepare a back-up file for files and data. | Project Manager |
| 4 | GitLab System Down | 5 | Inability to push or pull code, halting project development | Monitor GitLab status and updates from GitLab regularly, specifically when nearing deadlines. | Regularly backup code and projects. Utilise backup and recovery mechanisms. | RTE |
| 5 | Inadequate Documentation of Processes | 4 | Difficulty in understanding project progress and issues. | Review project documentation regularly. | Implement documentation templates. Assign documentation responsibilities to team members. | RTE |
| 6 | Issues when committing, pulling, pushing and merging the repository from GitLab. | 8 | Project delays and potential for merge conflicts | Ensure that the version pulled can be run on personal computer and it is possible to push, pull and commit from | Discuss the issue with group members, if no solution can be brainstormed, immediately seek the teaching team for assistance. | Developers |
| 7 | Inaccurate Requirement Understanding of the clients needs | 8 | Development of features that do not meet client expectations, leading to rework and wasted efforts. | Conduct frequent review sessions. | Engage in continuous communication to clarify and validate the requirements. | Project  Managers |
| 8 | Inadequate Time Management | 8 | Missed deadlines, rushed work, and potential project failure | Track project tasks and deadlines. | Implement time tracking tools. Allocate buffer time for unexpected delays. | RTE |
| 9 | Lack of Clear Communication | 6 | Misunderstandings leading to mistakes and project delays | Regularly hold team meetings. | Encourage open and transparent communication among team members. | RTE |
| 10 | Lack of Clear Project Direction | 6 | Project stagnation, missed goals, and misaligned team efforts | Regularly assess project progress. | Conduct frequent project checks. Set clear project objectives and priorities. | RTE |
| 11 | Team Member Burnout | 4 | Decreased productivity, low morale, and potential absenteeism | Monitor team members' workload and stress levels. | Encourage time management and balanced workloads. Implement rotation or backup plans if needed. | RTE |
| 12 | Dependency on Third-Party Services | 5 | Delays and disruptions if third-party services are unavailable or change unexpectedly | Regularly monitor third-party service status | Establish backup plans or alternative services | System Architect |
| 13 | Merging of wrong git branches to the main, causing errors when pulling | 8 | Causes build failures, delays, and potential bugs, disrupting development. | Ensure that code pushed and committed do not have errors | Immediately notify the team and revert back to previous commit | Developers |
| 14 | Server Downtime during Critical Development Phase | 8 | Halts progress, risks data loss, and disrupts project timelines, leading to missed deadlines. | Implement regular backups of critical data and configurations to minimise data loss in case of downtime. | Schedule regular backups of critical data and configurations.  Ensure that backups are stored securely and can be quickly restored in case of server failure. | System Architect |
| 15 | Technical and knowledge risks ( Team members lacking required skills to complete certain tasks efficiently) | 6 | Leads to delays, inefficiencies, and potential errors, extending project timelines. | Balance workload by aligning and allocating tasks by members strengths and weaknesses. | Seek support and guidance from team members who are more skilled in that specific area. | RTE and Project Manager |
| 16 | Inadequate Testing Coverage | 7 | Introduction of bugs into production, leading to rework and potential system failures | Regularly review and update test cases | Ensure thorough testing before deployment | System Architect |
| 17 | Copyright  concerns  regarding the  product  released |  | Legal issues can postpone project timelines.  Risk of lawsuits or fines for infringement. | Ensure that all resources  used are open sourced | Immediately replace all  copyrighted assets as soon as  possible | System Architect |
| 18 | Project Scope  Expansion  Beyond the  Agreed |  | Extended timelines and higher management channels. | Regularly review project  requirements. Document  all change requests and  updates. | Continuously monitor project  progress and compare it against  the baseline requirement.  Detect and address any scope  deviations promptly. | Project Manager |