# Project Risk

The risk in this project is assessed using a scale for 1-5 for likelihood and severity, the table in the following section defines these values.

**Any risk with an Impact of Medium or above must be mitigated.**

## Risk Matrix

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | | **Severity** | | | | |
| Negligible (1) | Minor (2) | Moderate (3) | Critical (4) | Catastrophic (5) |
| **Likelihood** | Rare (1) | Very Low  (1) | Very Low (2) | Low  (3) | Medium  (4) | Medium  (5) |
| Unlikely (2) | Very Low  (2) | Low  (4) | Medium  (6) | Medium  (5) | High  (10) |
| Moderate (3) | Low  (3) | Medium (6) | Medium  (9) | High  (12) | Very High  (15) |
| Likely (4) | Medium  (4) | Medium  (5) | High  (12) | Very High  (16) | Extreme  (20) |
| Almost certain (5) | Medium  (5) | High  (10) | Very High  (15) | Extreme  (20) | Extreme  (25) |

## Risk Register

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Risk ID | Description | Current Risk | | | Owner | Date | Mitigation | Residual Risk | | |
| L | I | S | L | I | S |
| *R0* | *Developer’s computer fails and data is lost* | *2* | *5* | *10* | *MW* | *07 Feb 2023* | *Setup and maintain a daily offsite backup of all data pertaining to the project* | *2* | *2* | *4* |
| R1 | The team leader’s unexpected unavailability | 3 | 4 | 12 | Team Leader | 23 Feb 2024 | Designate a deputy team leader who can temporarily assume responsibilities. | 2 | 3 | 6 |
| R2 | Poor communication with team members leading to misunderstandings and delays. | 4 | 3 | 12 | Team Leader | 23 Feb 2024 | Establish regular communication channels ( meetings, emails,messagin apps ), encourage an open and transparent communication culture, use project management tools for tracking progress and updates. | 2 | 2 | 4 |
| R3 | Deputy team leader getting overwhelmed with responsibilities. | 4 | 3 | 12 | Team Leader | 23 Feb 2024 | Regular check-ins with the team leader, delegation of tasks to other team members, time management training. | 2 | 2 | 4 |
| R4 | Misinterpretation of client requirements leading to incorrect system design. | 3 | 4 | 12 | System Analyst | 23 Feb 2024 | Regular communication with the client to clarify requirements, documentation of requirements and design decisions. | 2 | 3 | 6 |
| R5 | Inadequate understanding of system requirements leading to suboptimal system architecture. | 3 | 4 | 12 | System designer | 23 Feb 2024 | Collaborate closely with system analysts. | 2 | 3 | 6 |
| R6 | Underestimation of development effort leading to missed deadlines. | 4 | 4 | 16 | Developer /Programmer | 23 Feb 2024 | Break down tasks into smaller, manageable units, track progress regularly using project management tools, implement agile development practices. | 2 | 3 | 6 |
| R7 | Inadequate test coverage leading to undetected bugs in the system. | 4 | 5 | 20 | Tester Quality Assurance | 23 Feb 2024 | Develop comprehensive test plans covering all functional and non-functional requirements, automate repetitive tests where possible, conduct thorough regression testing after each code change. | 2 | 4 | 8 |
| R8 | Time constraints leading to rushed or incomplete testing. | 3 | 3 | 9 | Tester Quality Assurance | 23 Feb 2024 | Involve testers early in the development process, allocate sufficient time for testing in project planning. | 2 | 2 | 4 |
| R9 | Loss of data due to inadequate backup and recovery procedures. | 2 | 5 | 10 | System Analyst | 18 March 2024 | Implement robust backup and disaster recovery solutions, regularly test the restoration process. | 1 | 3 | 3 |
| R10 | System security vulnerabilities leading to data breaches. | 2 | 4 | 8 | Developer/Programmer | 18 March 2024 | Team members can see our code on GitHub, and we often look over our code together to spot any mistakes that could be risky. This helps us learn and keep our project more secure. | 2 | 3 | 6 |
| R11 | Overlooking user experience issues due to focus on technical requirements. | 3 | 3 | 9 | Tester Quality Assurance/System Designer | 18 March 2024 | Our team will set up testing sessions for end users, to try out our app and provide feedback, This process is crucial for enhancing the app’s usability and overall user experience. | 2 | 2 | 4 |
| R12 | Insufficient testing environments leading to untested scenarios. | 3 | 4 | 12 | Tester Quality Assurance | 18 March 2024 | Set up multiple testing environments that mimic real-world operations as closely as possible. | 1 | 3 | 3 |
| R13 | Quality Standards Non-conformity | 2 | 4 | 8 | Tester/ Quality Assurance | 16 April 2024 | Define clear quality benchmarks, conduct regular training on quality standards, and perform early quality checks. | 1 | 2 | 2 |
| R14 | Inadequate Unit Testing | 3 | 4 | 12 | Developer/Programmer | 16 April 2024 | Develop comprehensive unit tests before coding, practice test-driven development, and use automated testing tools. | 2 | 2 | 4 |
| R15 | Document Management Inefficiencies | 2 | 4 | 8 | Deputy Team Leader | 16 April 2024 | Utilize a centralized document management system, conduct periodic audits of the Project Binder, and enforce document control procedures. | 1 | 2 | 2 |
| R16 | Code Integration Issues | 3 | 3 | 12 | Developer/Programmer | 16 April 2024 | Use continuous integration practices, perform regular code merges, and conduct integration testing frequently. | 2 | 3 | 6 |
| R17 | Design Over-Complexity Leading to Development Challenges | 3 | 4 | 12 | System Designer | 16 April 2024 | Implement design simplification reviews, prototype complex components, and ensure regular feedback from developers. | 2 | 2 | 4 |
| R18 | Loss of Critical Project Information | 2 | 5 | 10 | System Analyst | 16 April 2024 | Regular backups, use version control for documentation, conduct knowledge sharing sessions. | 1 | 3 | 3 |
| R19 | Critical Technology Failure | 3 | 5 | 15 | System Designer | 16 April 2024 | Develop a simple, clear plan for what to do in case of a technology failure, including steps to switch to backup systems or recover lost data. | 1 | 3 | 3 |
| R20 | Data Loss | 2 | 4 | 8 | Team Leader | 16 April 2024 | Regularly back up all project data and code on multiple platforms: local storage, GitHub.  Maintain a project binder that includes all critical documentation, both in physical and digital form, ensuring that it is updated regularly by all team members. | 1 | 4 | 4 |