# 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 | Incorporate security audits, apply best practices in security, and provide regular updates and patches. | 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 | Include UX specialists in testing phases, conduct user acceptance testing with actual restaurant staff. | 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 | Use redundant systems, perform regular technology risk assessments, and establish quick disaster recovery protocols. | 1 | 3 | 3 |
| R20 | Data Loss | 2 | 4 | 8 | Team Leader | 16 April 2024 | Implement advanced cybersecurity measures, conduct regular security training, and perform frequent data backups with secure offsite storage. | 1 | 4 | 4 |