**Risk Management Plan**

**Chubby Gourmet’s E-Commerce Web Application**

**HighTable**

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**6.9 Risk Management Plan**

**6.9.1 Introduction**

The Risk Management Plan plays a vital role in the Chubby Gourmet project, which strives to develop a cutting-edge web application catering to culinary enthusiasts. By implementing effective risk management strategies, the project team ensures the delivery of a premium-quality product while proactively addressing potential obstacles to project success.

The project team is dedicated to developing an exceptional web application that transforms the way individuals engage with small businesses like Chubby Gourmet. Their goal is to create a cutting-edge platform that enables users to discover, explore, and indulge in unique culinary experiences. By offering personalized recommendations, a user-friendly interface, and a vibrant community, Chubby Gourmet aims to provide food enthusiasts with a seamless and engaging experience. The project's success relies on delivering a delightful user experience, fostering trust and loyalty, and positioning Chubby Gourmet as the ultimate platform for culinary exploration.

However, like any complex project, the Chubby Gourmet project is not without its risks. Potential challenges and uncertainties may arise that could impact the project's objectives, including its quality, timeline, budget, and overall success. Therefore, the Risk Management Plan plays a crucial role in identifying, assessing, and mitigating these risks, ensuring that the project team can effectively navigate potential obstacles and deliver a successful web application.

To futher develop a risk management Plan for Chubby Gourmet’s Web Application, the following information should be considered:

|  |  |
| --- | --- |
| Identifying and Assessing Risks | The project team should identify potential risks related to the development, implementation, and operation of Chubby Gourmet’s System. Risks can come from various sources, including technical issues, regulatory compliance, cybersecurity, and human factors. Once identified, risks should be assessed based on their likelihood of occurring and the impact they may have on the project. |
| Risk Mitigation Strategies | After identifying and assessing risks, the project team should develop a plan for mitigating or avoiding the risks. Mitigation strategies should be prioritized based on their effectiveness in reducing risk and their feasibility in terms of time and cost. Strategies may include contingency planning, redundancy, and the development of fallback procedures. |
| Contingency Planning | The project team should develop contingency plans for significant risks that could significantly impact the project's success. Contingency plans should outline the steps required to minimize the impact of the risk and maintain the project's progress. These plans should be regularly reviewed and updated as the project progresses, and new risks are identified. |
| Communication and Reporting | The project team should establish a clear communication and reporting framework for risk management. This framework should ensure that risks are regularly reviewed, and the project team is updated on any changes to the risk landscape. Communication should occur between project managers, team members, and stakeholders. |
| Risk Monitoring and Review | Risk management is an ongoing process that requires continuous monitoring and review. The project team should establish a regular review process to ensure that risk management strategies remain effective, risks are updated, and new risks are identified. The review process should be transparent, with all stakeholders being updated on any changes. |

By considering these additional factors in a risk management plan, the Chubby Gourmet’s System project team can ensure that the project is completed successfully, meeting all objectives while minimizing potential risks.

**6.9.2 Top Three Risks**

The project’s top three risks are:

1. Chubby Gourmet's web application may experience scalability and performance issues as it becomes more well-known and draws more users. It may lead to slow response times, frequent downtime, or even crashes if the application is not built to handle many concurrent users or if the underlying infrastructure is improperly configured. The development team should think about load testing, streamlining the application's code and database queries, putting in place caching systems, and using scalable infrastructure solutions to reduce this risk.
2. Data Loss or Corruption: Data is an asset for Chubby Gourmet, including user profiles, recipes, and other application-related information. The risk of data loss or corruption can arise from hardware failures, software bugs, human errors, or natural disasters. To minimize this risk, regular data backups should be performed and stored securely. Additionally, implementing data redundancy measures, such as replication or distributed storage systems, can help ensure data availability and prevent loss or corruption in case of unforeseen events.
3. Resource risk due to the possibility of insufficient resources being available to complete the project on time. This may cause delays and budget overruns.

**6.9.3. Risk Management Approach**

To mitigate these risks, Chubby Gourmet's project team has developed strategies including thorough testing and validation of the data migration process, adopting an Agile development methodology to quickly identify and address technical issues, providing training and support to ensure successful system adoption, and maintaining regular communication with stakeholders to promptly address any potential delays or issues.

The following steps will be taken to manage risks in Chubby Gourmet’s System project:

* **Risk Identification:** The project team will identify project-related risks through brainstorming sessions, reviews of previous project experiences, and examination of the project's requirements and scope. The hazards will be listed in a risk register together with information on their chance of occurrence, potential impact, and description.
* **Risk Assessment:** The risks that have been identified will be evaluated in terms of both their likelihood of happening and their impact on the project. The risk matrix will be used by the project team to rank each risk according to severity. Priority will be given to risks with a high level of severity for either mitigation or contingency preparation.
* **Risk Mitigation:** For risks with a high effect and likelihood of occurrence, mitigation plans will be created. The techniques for reducing or preventing the risk will be part of the mitigation plans. In addition, the project team will determine backup strategies for hazards that cannot be eliminated.
* **Risk Monitoring:** Throughout the course of the project, the risks will be regularly tracked. The project team will periodically examine the risk register to make sure that risks are being appropriately managed. The risk assessment procedure will be repeated as more risks that are discovered throughout the project are added to the risk register.
* **Risk Communication:** The act of informing relevant parties, such as the project sponsor, the project team, and other stakeholders, about risks and associated management techniques is referred to as risk communication. The project team will maintain constant communication and make sure stakeholders are informed throughout the process if any risks are detected, evaluated, and handled.

**6.9.4. Risk Identification**

Through a comprehensive risk identification process for the Chubby Gourmet project, various methods were employed to identify and assess potential risks. These methods included expert interviews, analysis of historical data from previous projects, and a risk assessment conference involving the project team and key stakeholders. The aim was to create a risk register that documents the identified hazards, including a brief description, potential impact, and likelihood of occurrence.

During the risk assessment meeting, the project team and key stakeholders were actively engaged in identifying and assessing risks specific to Chubby Gourmet's success. The outcomes of this meeting were diligently recorded in the risk register, ensuring that all identified risks were captured.

To supplement the risk identification process, the project team conducted a thorough review of historical information from similar projects. This allowed them to identify potential risks that might arise during the development of Chubby Gourmet and develop corresponding mitigation strategies. Additionally, expert interviews were conducted with team members who possessed relevant experience in developing similar systems. These interviews provided valuable insights and helped identify additional risks, which were then addressed through appropriate mitigation strategies.

The risks identified through the risk assessment meeting and expert interviews were documented in a format consistent with the Agile risk management plan. The risk register is regularly updated to ensure the inclusion of new risks and the effective management of existing ones. Throughout the project lifecycle, the project team remains vigilant in monitoring and managing risks to mitigate their potential impact on Chubby Gourmet's development and overall success.

Some potential risks identified for Chubby Gourmet’s System include:

* **Lack of resources:** There is a risk that the project may not have sufficient resources, such as personnel, budget, or equipment, which could impede the successful completion of the project.
* **Scope creep:** There is a risk that the project's scope may expand beyond its initial boundaries, resulting in delays and cost overruns.
* **Dependencies on external parties:** The project may rely on the cooperation and performance of external parties, such as vendors or third-party services, which introduces a risk of delays or complications if those parties do not meet expectations.
* **Changes in technology:** There is a risk that evolving technology or industry standards may impact on the project, requiring additional work or resources to adapt and integrate new technologies.
* **Security vulnerabilities:** There is a risk that the project may be exposed to security breaches or data loss, potentially resulting in significant consequences for the application and its users.
* **Human error:** There is a risk of mistakes or errors made by project team members, which could impact the project's progress, quality, or functionality.
* **Unforeseen circumstances:** There is a risk of unexpected events or circumstances, such as natural disasters or market shifts, which may impact the project and require adjustments to plans and timelines.

To mitigate these risks, the project team has implemented various strategies, including thorough testing and validation processes, adopting an Agile development methodology to address technical issues promptly, providing training and support to team members for successful system adoption, and maintaining regular communication with key stakeholders to identify and address potential delays or issues.

**6.9.5 Risk Qualification and Prioritization**

A probability-impact matrix was used to qualify and rank the dangers listed in the risk registry. High priority was given to risks that had a high likelihood of happening and a major impact on the project. To ensure that risks are given the proper priority, the project team will review and update the risk register on a regular basis.

After identifying potential risks associated with the Dispatch Directory System business case, we need to determine the probability and impact of each risk. This will help in prioritizing the risk mitigation strategies.

We have used a probability-impact matrix to qualify and prioritize the risks for this project.

We have categorized the risks into four categories: Extreme, High, Medium, Low, and Negligible.

The probability of risks happening and their impact on the project is described below:

* Extreme: Risks with a very high probability of occurring and a severe impact on the project.
* High: Risks with a high probability of occurring and a significant impact on the project. These risks require immediate attention, and we need to develop mitigation strategies for them.
* Medium: Risks with a medium probability of occurring and a moderate impact on the project. These risks should be closely monitored, and mitigation strategies should be developed in case they occur.
* Low: Risks with a low probability of occurring and a minor impact on the project. These risks can be monitored periodically, and mitigation strategies can be developed in case they occur.
* Negligible: Risks with a very low probability of occurring and negligible impact on the project. These risks can be ignored.

The following are the identified risks and their prioritization based on probability and impact:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | **Risk** **Assessment** **Matrix** | |  |  |
| Probability  Impact | Rare (1) | Unlikely (2) | Possible (3) | Likely (4) | Almost  Certain (5) |
| Insignificant  (1) | N | N | N | N | L |
| Minor (2) | N | N | L | L | M |
| Significant  (3) | N | L | L | M | H |
| Disastrous  (4) | N | L | M | H | E |
| Catastrophic  (5) | L | M | H | E | E |

Technical Risks:

* High Probability and High Impact
* Lack of technical expertise to develop the system. E4
* System performance and scalability may not meet the expected user demand. E4
* Failure of the new system to integrate with the current systems. E4
* Software bugs and errors impacting functionality and user experience. E5
* Data corruption or loss due to inadequate backup and recovery processes. E5

Resource Risks:

* High Probability and Medium Impact
* Insufficient availability of skilled developers and designers. E5
* Budget constraints affect the procurement of necessary tools and resources. E5
* Inadequate hardware or infrastructure resources for hosting and deployment. E4
* Lack of access to necessary software licenses or subscriptions. E5

Security Risks:

* Medium probability and Medium impact
* Unauthorized access to the system – L3
* Insufficient user authentication and authorization mechanisms – L3
* Inadequate data encryption during transmission and storage – L3

Based on the above prioritization, we will focus on developing mitigation strategies for the extreme and high priority risks first. We will continuously monitor the medium and low priority risks and develop mitigation strategies if required. The negligible priority risks will be ignored as they have a very low probability of occurring and have a negligible impact on the project.

We will align this risk qualification and prioritization with the risk management plan of agile by regularly reviewing and updating the risk register throughout the project. We will also ensure that risks are included in sprint planning, so the team is aware of the risks and can plan accordingly. Additionally, we will encourage the team to identify and report any new risks they may come across during the project.

**6.9.6. Risk Monitoring**

The Agile Risk Management Plan for the Chubby Gourmet project establishes a systematic approach to monitor and manage risks throughout the project's lifecycle. The plan emphasizes the importance of continuous risk monitoring and documentation, including the identification of trigger conditions that may initiate risks.

To implement the plan effectively, the project manager will integrate high-scoring risks into the project schedule and designate a risk manager responsible for overseeing their monitoring. The risk manager will work closely with the project manager to determine the appropriate level of attention needed for each risk and provide regular updates during bi-weekly project team meetings. The risk manager will also maintain a record of the identified trigger conditions for each risk.

Ensuring awareness of the identified risks and their potential impact, the project manager will communicate this information to the entire project team. The team members will be encouraged to promptly notify the risk manager of any new risks or changes to existing risks they observe. The risk manager will then assess and prioritize these new risks accordingly.

During the bi-weekly team meetings, the risk manager will report on the status of identified risks, any newly identified risks, and the effectiveness of the implemented mitigation plans. Collaboratively, the project team and the risk manager will review and make necessary adjustments to the risk management plan based on the evolving project circumstances.

In summary, the Chubby Gourmet project team will adopt an agile risk management methodology, focusing on continuous improvement and adaptability. The effectiveness of the risk management plan will be regularly evaluated and modified as required, ensuring the project's objectives are achieved while maintaining the desired quality standards.

**6.9.7. Risk Mitigation and Avoidance**

To effectively mitigate and avoid potential risks in the Chubby Gourmet project, the project team will develop a risk management plan that prioritizes each identified risk. Strategies will be implemented to address probable delays, including creating backup plans, allocating additional resources, or modifying project timelines. Continuous assessment of the mitigation techniques will be conducted in collaboration with stakeholders to ensure their effectiveness.

The following key considerations and options will be employed by the project manager for risk mitigation and avoidance:

* Resource Allocation: The project manager will ensure that the project team has the necessary resources, such as skills, expertise, knowledge, tools, and equipment, to successfully complete the project within the defined budget and timeline.
* Risk Assessment: The project team will conduct a comprehensive risk assessment early in the project to identify and analyze potential risks thoroughly. Prompt actions will be taken to address and mitigate these risks.
* Contingency Planning: Backup plans and contingencies will be developed to be prepared for potential risks. The project manager will oversee the development, testing, and confirmation of these contingency plans for each identified risk.
* Communication: Clear and open communication channels will be promoted by the project manager to minimize risks and prevent misunderstandings among the project team, clients, and stakeholders.
* Agile Approach: The project team will adopt an Agile methodology, enabling ongoing risk management and providing flexibility and responsiveness to address changes. The project manager will ensure adherence to the Agile principles throughout the project.
* Change Management: A clear change management process will be established to handle unexpected changes. The project team will document, communicate, and obtain approval from relevant stakeholders for any changes, effectively managing and preventing potential risks.

By implementing these risk mitigation and avoidance strategies, the Chubby Gourmet project team aims to proactively manage and address potential risks, ensuring the successful completion of the project within the defined objectives and quality standards.

**6.9.8. Risk Register**

The risk register, which will be kept up to date throughout the project, will include a thorough explanation of each risk, its likelihood, and potential effects, as well as any mitigation measures taken. To make sure the risk register appropriately reflects the project's current condition, it will be reviewed and updated on a regular basis. All stakeholders will have access to the risk registry, which will be kept in a central location.

This risk management strategy, which emphasizes early and frequent risk identification, collaborative risk management, and ongoing risk monitoring, is generally in line with the Agile methodology. The Dispatch Directory System project team can lessen the effects of probable risks and raise the possibility that the project will succeed by anticipating and resolving them. Furthermore, the risk register for the Dispatch Directory System project will be kept in a shared document with the help of a cloud-based project management tool like Jira, Asana, or Trello. The project team will use this tool to track and prioritize risks, assign responsibilities, and track progress in risk mitigation.

The following criteria will be used for the risk register:

* Risk ID - each risk will be assigned a unique identifier.
* Risk Description - there will be a clear and concise description of the risk event.
* Risk Category - will classify risks into technical, organizational, or legal categories.
* Risk Owner - will be responsible for monitoring and managing each risk.
* Probability - likelihood of a risk occurring is assessed using a scale of 1 to 5, with 1 indicating the lowest likelihood and 5 indicating the highest.
* Impact - the risk's potential impact on the project is rated on a scale of 1 to 5, with 1 indicating the least significant impact and 5 indicating the most significant impact.
* Risk Score - the probability and impact scores are multiplied to determine the overall risk score.
* Mitigation Strategy - outlines the specific measures to be taken to mitigate the risk.
* Status - risk's current status, whether it is open, in progress, or closed, is also documented.
* Target Resolution Date - anticipated date for risk resolution to be resolved.

**Risk Register:**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Risk ID** | **Risk Rank** | **Risk** | **Description** | **Category** | **Destination/  Owner** | **Probability** | **Impact** | **Status** |
| RID 001 | 1 | Technical Risks | Compatibility issues with different web browsers and devices. | Technical | Technical Lead | High | High | In progress |
| RID 002 | 2 | Technical  Risks | System performance and scalability may not meet the expected user demand. | Technical | Project  Manager | High | High | In   progress |
| RID 003 | 2 | Technical Risks | Integration challenges with third-party APIs or services. | Technical | Technical  Lead | High | High | In   progress |