**Project Name**

**Requirements Document**

**Author**

**Date**

Revision History

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| --- | --- | --- | --- |
| **Version** | **Date** | **Author** | **Purpose** |
| 1.0 |  |  | Initial release |
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# Introduction

*[The Requirements Document should provide a complete and comprehensive set of requirements applicable to the project. The focus should be on the “what” – the project team should be empowered to determine the “how” whenever possible. A good basic set of requirements should include:*

* *SMART requirements*
* *Business process diagrams and other illustrations*
* *Use cases and user stories*

*Many other methods are possible, but this is a minimal set for success.*

*In the introduction, discuss the purpose of the project, the high-level goals and objectives, and anything else pertinent to building an understanding of the project.]*

# Requirements

*[The Requirements section presents functional and non-functional requirements in SMART form – specific, measurable, achievable, relevant, and time oriented.*

*Consider this example describing a portion of the requirements for an ATM (automated teller machine):*

1. *The ATM will allow cash withdrawals:*
2. *Authenticated and validated users with sufficient funds*
3. *Amounts up to $5,000 per day in $20 increments*
4. *Complete and post transaction within 15 seconds*
5. *Authenticated and validated users shall be defined as …… In the event the user is unable to authenticate and validate, an error message stating the cause will be displayed.*
6. *“Sufficient funds” means either:*

*a) There are sufficient funds in the account selected for withdrawal*

*-OR-*

*b) There is a linked overdraft account which has sufficient funds to cover the withdrawal. When the withdrawal is made, funds will be transferred from this account to the account selected for withdrawal.*

1. *In the event there are insufficient funds, an error message stating cause will be displayed.*

*Note the requirements consist of functional (specifies how the product, service, or other result will function) requirements (e.g. allow cash withdrawals) and non-functional (limits, constraints, and other quantitative information which clarifies the requirements and makes them more specific) requirements (e.g. $5,000 per day in $20 increments).*

*It is also important that requirements consider what to do in the event that conditions are not met (e.g. insufficient funds).]*

# Business Process Diagrams

*[Business Process Diagrams are visual models which can take a variety of forms such as swimlane diagrams, flow charts, and more. They help to further clarify the functional and non-functional requirements. Swimlane diagrams combine process flow with roles (example is in the lesson/chapter on Requirements). They may add detail difficult to write about for a complex requirement or simply provide visual confirmation of the requirements.]*

# Use Cases / User Stories

*[Use cases and user stories are another way to clarify requirements, this time, from the perspective of the user. Use cases are often presented in the form of a diagram showing a user.*

*User stories are typically written in the form “As a <user role>, I want to <action> so that <benefit>. So, for the ATM, we might write “as a bank customer, I want to withdraw cash so that I have money to spend”. Confirmations similar to non-functional requirements may accompany these statements (e.g. customer can withdraw up to $5,000 per day in $20 increments). While these are mostly used with Agile projects, they can be helpful in clarifying any relatively complex user interactions.*

*Having this additional form of documentation adds clarity to the requirements, making it easier for the team to determine what designs will satisfy the requirements.]*