**BUSINESS REQUIREMENTS DOCUMENT (BRD)**

Business Requirements Document (BRD)

Project No.: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Production Priority: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Target Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Approved by:**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name of user, department Date

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name of user, department Date

**Prepared by:**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name of user, department Date

**Filename:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Version No. :** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Table of Contents

Version Control 6

Revision History 6

RACI Chart for This Document 6

Codes Used in RACI Chart 6

RACI Chart 7

Executive Summary 7

Overview 7

Background 7

Objectives 7

Requirements 7

Proposed Strategy 7

Next Steps 8

Scope 8

Included in Scope 8

Excluded from Scope 8

Constraints 8

Impact of Proposed Changes 8

Risk Analysis 9

Technological Risks 9

Skills Risks 9

Political Risks 9

Business Risks 9

Requirements Risks 9

Other Risks 9

Business Case 9

Timetable 10

Business Use Cases 10

Business Use-Case Diagrams 10

Business Use-Case Descriptions 10

Actors 10

Workers 10

Business Actors 10

Other Systems 11

Role Map 11

User Requirements 11

System Use-Case Diagrams 11

System Use-Case Descriptions 11

State-Machine Diagrams 14

Nonfunctional Requirements 14

Performance Requirements 14

Stress Requirements 14

Response-Time Requirements 14

Throughput Requirements 15

Usability Requirements 15

Security Requirements 15

Volume and Storage Requirements 15

Configuration Requirements 15

Compatibility Requirements 15

Reliability Requirements 15

Backup/Recovery Requirements 15

Training Requirements 15

Business Rules 15

State Requirements 16

Testing State 16

Disabled State 16

Structural Model 16

Class Diagrams: Entity Classes 16

Entity Class Documentation 16

Test Plan 17

Implementation Plan 18

Training 18

Conversion 18

Scheduling of Jobs 18

Rollout 18

End-User Procedures 18

Post-Implementation Follow-Up 19

Other Issues 19

Sign-Off 19

# Version Control

Completing the following table makes it easy to come back later and track what changes were made to the requirements at each point in the project, who made them, and why they were made. This is a way of implementing change control on the BRD.

## Revision History

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Version #** | **Date** | **Authorization** | **Responsibility (Author)** | **Description** |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

##

## RACI Chart for This Document

The RACI chart identifies the persons who need to be contacted whenever changes are made to this document. RACI stands for responsible, accountable, consulted, and informed. These are the main codes that appear in a RACI chart, used here to describe the roles played by team members and stakeholders in the production of the BRD. They are adapted from charts used to assign roles and responsibilities during a project.

The following describes the full list of codes used in the table:

### Codes Used in RACI Chart

\*Authorize Has ultimate signing authority for any changes to the document.

R Responsible Responsible for creating this document.

A Accountable Accountable for accuracy of this document
 (for example, the project manager)

S Supports Provides supporting services in the production of this document

C Consulted Provides input (such as an interviewee).

I Informed Must be informed of any changes.

### RACI Chart

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Position** | **\*** | **R** | **A** | **S** | **C** | **I** |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

#

# Executive Summary

The “Executive Summary” section should be a précis of the entire document. It should summarize, in a page or two, the context for the document (why it was written), the main issues raised within, and the main conclusions of the document. The purpose of the summary is to provide just enough detail for a high-level stakeholder (who may not have time to read the whole thing) and to help any other potential reader ascertain whether it is worth reading the rest of the document.

This is a one-page summary of the document, divided into the following subsections.

## Overview

This subsection of Executive Summary is a one-paragraph introduction that explains the nature of the project.

## Background

This subsection of Executive Summary provides details leading up to the project that explain why the project is being considered. Discuss the following where appropriate: marketplace drivers, business drivers, and technology drivers.

## Objectives

This subsection of Executive Summary details the business objectives addressed by the project.

## Requirements

This subsection of Executive Summary is a brief summary of the requirements addressed in this document.

## Proposed Strategy

This subsection of Executive Summary recommends a strategy for proceeding based on alternatives.

## Next Steps

This subsection of Executive Summary describes specific actions to be taken next. Complete the following for each action.

* **Action**: Describe the specific action to be taken.
* **Responsibility**: State who is responsible for taking this action.
* **Expected Date**: State when the action is expected to be taken.

# Scope

The “Scope” section defines what is to be included and excluded from the project, what has been predetermined about the project (constraints), the business processes affected by the project, and the impact of the project on stakeholders.

## Included in Scope

This subsection of Scope is a brief description of business areas covered by the project.

## Excluded from Scope

This subsection of Scope briefly describes business areas not covered by the project.

## Constraints

This subsection of Scope documents predefined requirements and conditions.

## Impact of Proposed Changes

This subsection of Scope describes the impact of proposed changes in the business area. Use the following table to document the impact.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Business Use Case** | **New?** | **Desired Functionality** | **Current Functionality (if a Change)** | **Stakeholders / Systems** | **Priority** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

#

# Risk Analysis

In this section of the BRD, you describe risks. A risk is something that could affect the success or failure of a project. Analyze risks regularly as the project progresses. While you may not be able to avoid every risk, you can limit each risk’s impact on the project by preparing for it beforehand. For each risk, you’ll note the likelihood of its occurrence, the cost to the project if it does occur, and the strategy for handling the risk. Strategies include the following:

* **Avoid:** Do something to eliminate the risk.
* **Mitigate:** Do something to reduce damage if risk materializes.
* **Transfer:** Pass the risk up or out to another entity.
* **Accept:** Do nothing about the risk. Accept the consequences.

## Technological Risks

This subsection of “Risk Analysis” specifies new technology issues that could affect the project.

## Skills Risks

This subsection of “Risk Analysis” specifies the risk of not getting staff with the required expertise for the project.

## Political Risks

This subsection of “Risk Analysis” identifies political forces that could derail or affect the project.

## Business Risks

This subsection of “Risk Analysis” describes the business implications if the project is canceled.

## Requirements Risks

This subsection of “Risk Analysis” describes the risk that you have not correctly described the requirements. List areas whose requirements were most likely to have been incorrectly captured.

## Other Risks

In this subsection of “Risk Analysis,” document any other risks not covered in the prior subsections.

# Business Case

Describe the business rationale for this project. This section may contain estimates on cost/benefit, return on investment (ROI), payback (length of time for the project to pay for itself ), market-share benefits, and so on. Quantify each cost or benefit so that business objectives may be measured after implementation. Revise estimates periodically as the project progresses.

# Timetable

In this section of the BRD, provide a timetable for the project.

# Business Use Cases

Complete this section if the project involves changes to the workflow of end-to-end business processes. Document each end-to-end business process affected by the project as a business use case. If necessary, describe existing workflow for the business use case as well as the new, proposed workflow.

## Business Use-Case Diagrams

Business use-case diagrams describe stakeholder involvement in each business use case.

## Business Use-Case Descriptions

Describe each business use case with text and/or an activity diagram. If you are documenting with text, use an informal style or the use-case template described in the upcoming “User Requirements” section.

# Actors

In this section, describe the actors (people, organizations, or other entities) that participate in the execution of business processes that interact with the business and/or interact with the IT system.

## Workers

List and describe stakeholders who act within the business in carrying out business use cases.

|  |  |
| --- | --- |
| **Department / Position** | **General Impact on Project** |
|  |  |
|  |  |
|  |  |

## Business Actors

List and describe external parties, such as customers and partners, who interact with the business.

|  |  |
| --- | --- |
| **Actor** | **General Impact on Project** |
|  |  |
|  |  |
|  |  |

##

## Other Systems

List computer systems potentially affected by this project. Include any system that will be linked to the proposed system.

|  |  |
| --- | --- |
| **System** | **General Impact on Project** |
|  |  |
|  |  |
|  |  |

##

## Role Map

The role map describes the roles played by actors (users and external systems) that interact with the IT system.

# User Requirements

This section describes requirements for automated processes from a user perspective.

## System Use-Case Diagrams

System use-case diagrams describe which users use which feature and the dependencies between use cases.

## System Use-Case Descriptions

During the Initiation phase, only short descriptions of the use cases are provided. During the Discovery phase, the following template is filled out for each medium- to high-risk use case. Low-risk use cases may be described informally. This template may also be used to document the business use cases included earlier in the BRD.

Use-Case Description Template

1. Use Case: The use-case name as it appears on system use-case diagrams
Perspective: Business use case/system use case
Type: Base use case/included/extending/generalized/specialized
	1. Use-Case Brief: Describe the use case in approximately one paragraph, identifying important flows and outcomes.
	2. Business Goals and Benefits: Briefly describe the business goals supported by the use case.
	3. Actors
		1. Primary Actors: Identify the users or systems that initiate the use case.
		2. Secondary Actors: List the users or systems that receive messages from the use case. Include users who receive reports or online messages.
		3. Off-Stage Stakeholders: Identify non-participating stakeholders who have interests in this use case.
	4. Rules of Precedence
		1. Triggers: Describe the event or condition that “kick-starts” the use case (for example, “User calls Call Center; inventory low”). If the trigger is time-driven, describe the temporal condition, such as “end-of-month.”
		2. Pre-Conditions: List conditions that must be true before the use case begins. (If a condition forces the use case to occur whenever it becomes true, do not list it here; list it as a trigger.)
	5. Post-Conditions
		1. Post-Conditions on Success: Describe the status of the system after the use case ends successfully. Any condition listed here is guaranteed to be true on successful completion.
		2. Post-Conditions on Failure: Describe the status of the system after the use case ends in failure. Any condition listed here is guaranteed to be true when the case fails as described in the exception flows.
	6. Extension Points: Name and describe points at which extension use cases may extend this use case.
		1. Example of Extension Point Declaration: “Preferred Customer: 2.5-2.9”
	7. Priority
	8. Status: Your status report might resemble the following:

Use-case brief complete: 2012/06/01.
Basic flow + risky alternatives complete: 2012/06/15
All flows complete: 2012/07/15
Coded: 2012/07/20
Tested: 2012/08/10
Internally released: 2012/09/15
Deployed: 2012/09/30

* 1. Expected Implementation Date
	2. Actual Implementation Date
	3. Context Diagram: Include a system use-case diagram showing this use case, all its relationships (includes, extends, and generalizes) with other use cases, and its associations with actors.
1. Flow of Events
Basic Flow
	1. (Insert basic flow steps.)

Alternate Flows

2.X.a (Insert the Alternate Flow Name): The alternate flow name should describe the condition that triggers the alternate flow. “2.X” is the step number within the basic flow where the interruption occurs. Describe the steps in paragraph or point form.

Exception Flows

2.Xa (Insert the Exception Flow Name): The exception flow name should describe the condition that triggers the exception flow. An exception flow is one that causes the use case to end in failure and for which “post-conditions on failure” apply. “2.X” is the step number within basic flow where the interruption occurs. Describe the steps in paragraph or point form.

1. Special Requirements: List any special requirements or constraints that apply specifically to this use case.
	1. Non-Functional Requirements: List requirements not visible to the user during the use case—security, performance, reliability, and so on.
	2. Constraints: List technological, architectural, and other constraints on the use case.
2. Activity Diagram: If it is helpful, include an activity diagram showing workflow for this use case or for select parts of the use case.
3. User Interface: Initially, include description/storyboard/prototype only to help the reader visualize the interface, not to constrain the design. Later, provide links to screen-design artifacts.
4. Class Diagram: Include a class diagram depicting business classes, relationships, and multiplicities of all objects participating in this use case.
5. Assumptions: List any assumptions you made when writing the use case. Verify all assumptions with stakeholders before sign-off.
6. Information Items: Include a link or reference to documentation describing rules for data items that relate to this use case. Documentation of this sort is often found in a data dictionary. The purpose of this section and the following sections is to keep the details out of the use case proper so that you do not need to amend it every time you change a rule.
7. Prompts and Messages: Any prompts and messages that appear in the use case proper should be identified by name only, as in “Invalid Card Message.” The “Prompts and Messages” section should contain the actual text of the messages or direct the reader to the documentation that contains text.
8. Business Rules: The “Business Rules” section of the use-case documentation should provide links or references to the specific business rules that are active during the use case. An example of a business rule for an airline package is “Airplane weight must never exceed the maximum allowed for its aircraft type.” Organizations often keep such rules in an automated business rules engine or manually in a binder.
9. External Interfaces: List interfaces to external systems.
10. Related Artifacts: The purpose of this section is to provide a point of reference for other details that relate to this use case, but would distract from the overall flow. Include references to artifacts such as decision tables, complex algorithms, and so on.

# State-Machine Diagrams

Insert state-machine diagrams describing the events that trigger changes of state of significant business objects.

# Nonfunctional Requirements

Describe across-the-board requirements not covered in the use-case documentation. Details follow.

## Performance Requirements

Describe requirements relating to the system’s speed.

### Stress Requirements

This subsection of performance requirements describes the degree of simultaneous activity that the system must be able to support. For example, “The system must be able to support 2,000 users accessing financial records simultaneously.”

### Response-Time Requirements

This subsection of performance requirements describes the maximum allowable wait time from the moment the user submits a request until the system comes back with a response.

### Throughput Requirements

This subsection of performance requirements describes the number of transactions per unit of time that the system must be able to process.

## Usability Requirements

Describe quantitatively the level of usability required. For example, “A novice operator, given two hours of training, must be able to complete the following functions without assistance....” Also, refer to any usability standards and guidelines that must be adhered to.

## Security Requirements

Describe security requirements relating to virus protection, firewalls, the functions and data accessible by each user group, and so on.

## Volume and Storage Requirements

Describe the maximum volume (that is, the number of accounts) that the system must be able to support, as well as random access memory (RAM) and disk restrictions.

## Configuration Requirements

Describe the hardware and operating systems that must be supported.

## Compatibility Requirements

Describe compatibility requirements with respect to the existing system and external systems with which the system under design must interact.

## Reliability Requirements

Describe the level of fault-tolerance required by the system.

## Backup/Recovery Requirements

Describe the backup and recovery facilities required.

## Training Requirements

Describe the level of training required and clearly state which organizations will be required to develop and deliver training programs.

# Business Rules

List business rules that must be complied in the solution. For example, a flight-reservation system might have a rule that the baggage weight on an aircraft must never exceed a given maximum. If an external rules engine is being used, this section should refer the reader to the location of these rules.

# State Requirements

Describe how the system’s behavior changes when in different states. Describe the features that will be available and those that will be disabled in each state.

## Testing State

Describe what the user may and may not do while the system is in the test state.

## Disabled State

Describe what is to happen as the system goes down (that is, how it “dies gracefully”). Clearly define what the user will and will not be able to do.

# Structural Model

The structural model describes business concepts and categories of business objects that are tracked by the business and that must be tracked by the solution. The model also includes business rules pertaining to those objects, such as the rule that an account may be tied to more than one customer.

## Class Diagrams: Entity Classes

Insert class diagrams representing classes of business objects and relationships among the classes. This section centralizes rules that govern business objects, such as the numerical relationships among objects, the operations associated with each object, and so on.

## Entity Class Documentation

Insert documentation to support each of the classes that appear in the class diagrams. Not every class needs to be fully documented. First do a risk analysis to determine where full documentation would most benefit the project. Complete the following for each class you document.

* **Class Name**: Name the class, as it appears in the structural model.
* **Alias:** List any other names by which the class is known within the business domain.
* **Description:** Provide a brief description of the class.
* **Example:** Provide an example of an object of this class.
* **Attributes:** These may be documented in a table as follows:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Attribute** | **Derived?** | **Derivation** | **Type** | **Format** | **Length** | **Range** | **Dependency** |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

When your requirements are complete up to this point and approved by the appropriate people, submit them to developers. You can then work on the test plan, implementation plan, and end-user procedures.

# Test Plan

To standardize the testing, you should develop a test-plan document for analysts to follow when constructing the project’s test plans. Although every project is different, the following may be used as a guideline. Each project should consider the following stages during testing:

1. **Submit the requirements to the technical team.** The technical team completes development. Concurrently, the BA builds numbered test scenarios for requirements-based testing. Consider using decision tables to identify scenarios and boundary-value analysis to select test data. The technical team conducts white-box testing to verify whether programs, fields, and calculations function as specified. The BA or technical team specifies the required quality level for white-box testing, such as multiple-condition coverage.
2. **Perform requirements-based testing.** The BA or dedicated quality assurance (QA) staff administers or supervises tests to prove or disprove compliance with requirements. Ensure that all formulae are calculated properly. Describe principles and techniques to be used in black-box testing, such as structured testing guidelines and boundary-value analysis.
3. **Conduct system testing.** Ensure that the integrity of the system and data remain intact. For example:
* **Regression test:** Retest all features (using a regression test bed).
* **Stress test:** Test multiple users at the same time.
* **Integration tests:** Make sure that the changes do not negatively affect the overall workflow across IT and manual systems.
* **Volume test:** Test the system with high volume.
1. **Perform user-acceptance testing.** Involve the end-users at this stage. Choose key users to review the changes in the test environment. Use the testing software as a final check.

# Implementation Plan

In this section of the BRD, describe plans for deploying the solution into production.

## Training

In this subsection of “Implementation Plan,” describe training plans. For example:

* Specify who is responsible for training.
* Specify who is to be trained.
* Specify how training will be done.

## Conversion

In this subsection of “Implementation Plan,” describe plans for converting and upgrading the existing infrastructure, data, and software. For example:

* Specify existing data that must be converted.
* Specify how software will be promoted to new release.
* Specify plans for granting privileges to the users.

## Scheduling of Jobs

In this subsection of “Implementation Plan,” specify plans for adding batch jobs to the production run. The plans should include instruction regarding the following issues:

* Advising IT operations of which jobs to add to the production run. Specify the frequency of the run: daily, weekly, monthly, quarterly, semi-annually, or annually.
* Ensuring that the job is placed in the correct sequence.
* Advising IT operations of the reports to be printed and the distribution list for reports and files.

## Rollout

Advise all affected users when the project is promoted.

# End-User Procedures

Write up the procedures for the affected departments. Distribute this document to members of those departments in addition to providing any hands-on training.

# Post-Implementation Follow-Up

Follow up within a reasonable time frame after implementation to ensure that the project is running successfully. Determine whether any further enhancements or changes are needed to ensure success of the project.

# Other Issues

In this section of the BRD, add any other issues that were not addressed in prior sections.

# Sign-Off

Use this section of the BRD for sign-offs on the requirements. Sign-offs should include the sponsor and representatives of the solution provider.