Airport Management System

Business Requirements Document

V1.0

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Role			
Signature			
Date			

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1.0 Introduction

1.1 Purpose of this document

This document is aimed at:

- Providing the necessary inputs to the detailed requirements gathering phase and further on for the SDLC processes.

- This document also serves to establish the traceability between the Business Objectives and the requirements identified in the proposed solution and how they satisfy the stated objectives.

- Provide expectation traceability in terms of the requirements and the user expectation

- Serves as a formal template for documenting the Business Requirements which also includes statutory and regulatory requirements.

The purpose of this document is to systematically capture requirements for the project and the system to be developed. Functional requirements are captured in this document. It also serves as the input for the project scoping.

1.2 Project Overview

1.2.1 Objectives

Below are the objectives that shall be fulfilled post the execution of this project:

The Airport Management System system is a system to add the plane information along with pilot details, add the Hangar and add the allotting Hangars to the planes, scheduling of the Hangars availability.

The following are the important modules in the system

- Adding Planes
- Adding Pilots
- Adding Hangars Details
- Allotting the planes into Hangars.
- Get Hangar Status

1.3 Intended Audience

- All member of the project.

- Delivery Assurance Group.

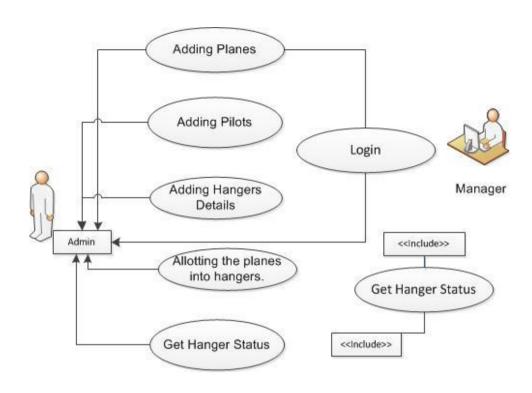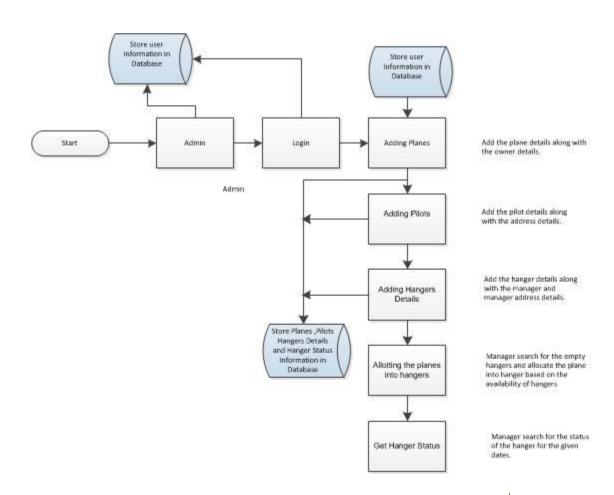# 2.0 Process Architecture

Below is the overall functional flow of the project including the components of interaction

- Create Admin Registration page & Authentication.

- Create Manager Registration page & Authentication.

- Add plane details.

- Add pilot details.

- Add Hangar details.

- Allot planes to the Hangars.

- Update Hangar status.

- View Hangar status.

- Disconnect on log off.

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3.0 High Level Business Requirements

Note - Primary focus is to complete developing the critical requirements (highlighted in Yellow) and then to proceed with the remaining requirements.

S.No.	Business Requirement ID	Short Description	Description in detail	Interacting Business Processes
1	Req_1	Initial Selection	Ability of the system to allow to Supplier to choose Admin/Supplier Login/Registration	
2	Req_2	Manager Registration	Ability of the system to procure the fundamental details of the Manager	
3	Req_3	Manager Authentication	Ability of the system to authenticate the Manager credentials of the registered Manager.	
4	Req_4	Admin Registration	Ability of the system to procure the fundamental details of the Admin.	
5	Req_5	Admin Authentication	Ability of the system to authenticate the credentials of the registered Admin.	
6	Req_6	Add planes / update planes	Ability of the system to add/ update plane details.	
7	Req_7	Add pilots / update	Ability of the system to add pilot details.	
8	Req_8	Add Hangars	Ability of the system to add Hangar details.	
9	Req_9	Allotting planes to the Hangar	Ability of the system to allot planes to Hangar.	
10	Req_10	Update Hangar status	Ability of the system to update the Hangar details.	
11	Req_11	View Hangar Status	Ability of the system to view the Hangar details.	
12	Req_12	Manager / Admin logoff	Ability of the system to enable Manager / Admin to logoff	

4.0 Detailed Business Requirements

4.1   Functional Requirements

The Requirements in this document are prioritized as follows:

Value	Rating	Description
1	Critical	This requirement is critical to the success of the project. The project will not be possible without this requirement.
2	High	This requirement is high priority, but the project can be implemented at a bare minimum without this requirement.
3	Medium	This requirement is somewhat important, as it provides some value but the project can proceed without it.

| 4 | Low | This is a low priority requirement, or a "nice to have" feature, if time and cost allow it. |
| 5 | Future | This requirement is out of scope for this project, and has been included here for a possible future release. |

Req. #	Rationale Categorization	Business Requirement	Req. Type *	Priority **	Originator ***	BR Traced to Business Requirement / Use case ID	Impacted Stakeholders
Req_ 1.1	Initial selection	Screen should display the option for Admin login / Registration and Manager login / Registration	UI	Critical	NA	Req_1	
Req_ 2.1	Manager Registration	When the Manager clicks on the registration link, it should re-direct to registration form.	UI	Critical	NA	Req_2	
Req_ 2.2	Manager Registration	Manager needs to fill some of the basic attributes/fields as mentioned below in requirement: First Name, Last Name, Age, Gender, Contact Number, Manager Id, Password	UI	Critical	NA	Req_2	Please refer to Table 1.0 under References
Req_ 2.3	Manager Registration	Clicking 'Submit' should validate the datatype constraints for each field	F	Critical	NA	Req_2	
Req_ 2.4	Manager Registration	Manager failing to provide information on the mandatory fields be provided with an alert message – 'Please update the highlighted mandatory field(s).' Also, highlight the missed out field in red	E	Medium	NA	Req_2	
Req_ 2.5	Manager Registration	Post-successful field level validation, save the information in the database	F	Critical	NA	Req_2	
Req_ 2.6	Manager Registration	Upon saving the information in the database, display the message 'Your details are submitted successfully'.	E	Medium	NA	Req_2	

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Req. #	Rationale Categorization	Business Requirement	Req. Type *	Priority **	Originator ***	BR Traced to Business Requirement / Use case ID	Impacted Stakeholders
Req_ 2.7	Manager Registration	Admin should be able to view the New Managers for registration	F	Critical	NA	Req_2	
Req_ 2.8	Manager Registration	Admin should approve / reject the Manager Request.	F	Critical	NA	Req_2	
Req_ 2.9	Manager Registration	If rejected, the Manager should not be allowed to login with the registered credentials	F	Critical	NA	Req_2	
Req_ 2.10	Manager Registration	Manager should get SMS on Approval / Rejection	E	Medium	NA	Req_2	
Req_ 3.1	Credential Authentication	A registered Manager – is able click 'Login' link, after keying in 'Manager ID' & 'Password' field and get his credentials authenticated with the existing database entry.	F	Critical	NA	Req_3	
Req_ 4.1	Admin Registration	When the Admin clicks on the registration link, it should re-direct to registration form.	UI	Critical	NA	Req_4	
Req_ 4.2	Admin Registration	Admin needs to fill some of the basic attributes/fields as mentioned below in requirement: First Name, Last Name, Age, Gender, Contact Number, Vendor Id, Password	UI	Critical	NA	Req_4	Please refer to Table 2.0 under References
Req_ 4.3	Admin Registration	Clicking 'Submit' should validate the datatype constraints for each field	F	Critical	NA	Req_4	

Req. #	Rationale Categorization	Business Requirement	Req. Type *	Priority **	Originator ***	BR Traced to Business Requirement / Use case ID	Impacted Stakeholders
Req_ 4.4	Admin Registration	Admin failing to provide information on the mandatory fields be provided with an alert message – 'Please update the highlighted mandatory field(s).' Also, highlight the missed out field in red	E	Medium	NA	Req_4	
Req_ 4.5	Admin Registration	Post-successful field level validation, save the information in the database	F	Critical	NA	Req_4	
Req_ 4.6	Admin Registration	Upon saving the information in the database, display the message 'Your details are submitted successfully'.	E	Medium	NA	Req_4	
Req_ 5.1	Credential Authentication	A registered user – is able click 'Login' link, after keying in 'Admin ID' & 'Password' field and get his credentials authenticated with the existing database entry.	F	Critical	NA	Req_5	
Req_ 6.1	Add planes / update planes	On clicking "Add Planes", it should redirect to the page to add Plane.	UI	Critical	NA	Req_6	
Req_ 6.2	Add planes / update planes	Admin should be able to update the mandatory fields of the Planes	F	Critical	NA	Req_6	Please refer to Table 3.0 under References
Req_ 6.3	Add planes / update planes	Clicking 'Submit' should validate the datatype constraints for each field	F	Critical	NA	Req_6	

Req. #	Rationale Categorization	Business Requirement	Req. Type *	Priority **	Originator ***	BR Traced to Business Requirement / Use case ID	Impacted Stakeholders
Req_ 6.4	Add planes / update planes	Admin failing to provide information on the mandatory fields be provided with an alert message – 'Please update the highlighted mandatory field(s).' Also, highlight the missed out field in red	F	Critical	NA	Req_6	
Req_ 6.5	Add planes / update planes	Post-successful field level validation, save the information in the database	F	Critical	NA	Req_6	
Req_ 6.6	Add planes / update planes	Upon saving the information in the database, display the message 'Your details are submitted successfully'.	F	Critical	NA	Req_6	
Req_ 6.7	Add planes / update planes	Admin should be able to view the list of planes by clicking "View Planes" link.	F	Critical	NA	Req_6	
Req_ 6.8	Add planes / update planes	On clicking the Plane ID, the system should display the details of the planes.	F	Critical	NA	Req_6	
Req_ 6.9	Add planes / update planes	Admin should be able to update the details of the plan on clicking "Update details" button	F	Critical	NA	Req_6	
Req_ 6.10	Add planes / update planes	On clicking "Save" button, the updated details should be saved to the database. Upon saving the information in the database, display the message 'Your details are submitted successfully'.	F	Critical	NA	Req_6	
Req_ 7.1	Add pilots / update pilots	On clicking "Add Pilots", it should redirect to the page to add Plane.	UI	Critical	NA	Req_7	Please refer to Table 4.0 under References

Req. #	Rationale Categorization	Business Requirement	Req. Type *	Priority **	Originator ***	BR Traced to Business Requirement / Use case ID	Impacted Stakeholders
Req_ 7.2	Add pilots / update pilots	Admin should be able to update the mandatory fields of the Pilots	F	Critical	NA	Req_7	
Req _7.3	Add pilots / update pilots	Clicking 'Submit' should validate the datatype constraints for each field	F	Critical	NA	Req_7	
Req _7.4	Add pilots / update pilots	Admin failing to provide information on the mandatory fields be provided with an alert message – 'Please update the highlighted mandatory field(s).' Also, highlight the missed out field in red	F	Critical	NA	Req_7	
Req _7.5	Add pilots / update pilots	Post-successful field level validation, save the information in the database	F	Critical	NA	Req_7	
Req _7.6	Add pilots / update pilots	Upon saving the information in the database, display the message 'Your details are submitted successfully'.	F	Critical	NA	Req_7	
Req _7.7	Add pilots / update pilots	Admin should be able to view the list of Pilots by clicking "View Pilots" link.	F	Critical	NA	Req_7	
Req _7.8	Add pilots / update pilots	On clicking the Plane ID, the system should display the details of the Pilots.	F	Critical	NA	Req_7	
Req_ 7.9	Add pilots / update pilots	Admin should be able to update the details of the plan on clicking "Update details" button	F	Critical	NA	Req_7	

Req. #	Rationale Categorization	Business Requirement	Req. Type *	Priority **	Originator ***	BR Traced to Business Requirement / Use case ID	Impacted Stakeholders
Req_ 7.10	Add pilots / update pilots	On clicking "Save" button, the updated details should be saved to the database. Upon saving the information in the database, display the message 'Your details are submitted successfully'.	F	Critical	NA	Req_7	
Req_ 8.1	Add Hangars / update Hangars	On clicking "Add Hangars", it should redirect to the page to add Plane.	UI	Critical	NA	Req_8	Please refer to Table 5.0 under References
Req_ 8.2	Add Hangars / update Hangars	Admin should be able to update the mandatory fields of the Hangars	F	Critical	NA	Req_8	
Req _8.3	Add Hangars / update Hangars	Clicking 'Submit' should validate the datatype constraints for each field	F	Critical	NA	Req_8	
Req _8.4	Add Hangars / update Hangars	Admin failing to provide information on the mandatory fields be provided with an alert message – 'Please update the highlighted mandatory field(s).' Also, highlight the missed out field in red	F	Critical	NA	Req_8	
Req _8.5	Add Hangars / update Hangars	Post-successful field level validation, save the information in the database	F	Critical	NA	Req_8	
Req _8.6	Add Hangars / update Hangars	Upon saving the information in the database, display the message 'Your details are submitted successfully'.	F	Critical	NA	Req_8	
Req _8.7	Add Hangars / update Hangars	Admin should be able to view the list of Hangars by clicking "View Hangars" link.	F	Critical	NA	Req_8	
Req _8.8	Add Hangars / update Hangars	On clicking the Plane ID, the system should display the details of the Hangars.	F	Critical	NA	Req_8	

Req. #	Rationale Categorization	Business Requirement	Req. Type *	Priority **	Originator ***	BR Traced to Business Requirement / Use case ID	Impacted Stakeholders
Req_ 8.9	Add Hangars / update Hangars	Admin should be able to update the details of the plan on clicking "Update details" button	F	Critical	NA	Req_8	
Req_ 8.10	Add Hangars / update Hangars	On clicking "Save" button, the updated details should be saved to the database. Upon saving the information in the database, display the message 'Your details are submitted successfully'.	F	Critical	NA	Req_8	
Req_ 9.1	Allotting planes to the Hangar	When Manager clicks Allot Hangar, the system should display the list of Hangars available and the list of planes waiting for hanger	F	Critical	NA	Req_9	
Req_ 9.2	Allotting planes to the Hangar	Manager should have the option to select the available hangar and allot it for a plane	F	Critical	NA	Req_9	Please refer to Table 6.0 under References
Req_ 10.1	Update Hangar status	After allotting Manager should update the status as Available / Allotted	UI	Critical	NA	Req_10	
Req_ 11.1	View Hangar Status	Manager on clicking "View Hangar Status", the page should display the list of all Hangars with status	UI	Critical	NA	Req_11	
Req_ 12.1	Manager / Admin Log off	Option to log off from the system.	UI	Critical	NA	Req_12	

5.0 References

5.1 Table 1.0(Manager)

Field Name	Field Type	Data Type	Mandatory	Possible Values
Manager	Text(10)	Alphabetic	Yes	System

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ID				Generated
First Name	Text(50)	Alphabetic	Yes	
Last Name	Text(50)	Alphabetic	Yes	
Age	Numeric(2)	Numeric	Yes	
Gender	Drop Down	NA		Male, Female
DoB	Text(10)	Alphanumeric	No	
Contact Number	Text(10)	Numeric	Yes	
Alt Contact Number	Text(10)	Numeric	No	
Email ID	Text(50)	Alphanumeric	No	
Password	Text(15)	Alphanumeric	Yes	

5.2   Table 2.0(Admin)

Field Name	Field Type	Data Type	Mandatory	Possible Values
Admin ID	Text(10)	Alphabetic	Yes	System Generated
First Name	Text(50)	Alphabetic	Yes	
Last Name	Text(50)	Alphabetic	Yes	
Age	Numeric(2)	Numeric	Yes	
Gender	Drop Down	NA		Male, Female
DoB	Text(10)	Alphanumeric	Yes	
Contact Number	Text(10)	Numeric	Yes	
Alt Contact Number	Text(10)	Numeric	No	
Email ID	Text(50)	Alphanumeric	Yes	

5.3   Table 3.0(Planes)

Field Name	Field Type	Data Type	Mandatory	Possible Values
Plane ID	Auto-generated(8)	Numeric	Yes	Non-editable system generated
Owner ID	Numeric(10)	Numeric	Yes	System generated
Owner first Name	Text(100)	Alphabetic	Yes	
Owner Last name	Text(100)	Alphabetic	Yes	
Owner Contact number	Numeric (10)	Numeric	Yes	
Owner Email	Text (50)	Alphanumeric	Yes	
Plane Type	Text (10)	Alphanumeric	Yes	
Plane capacity	Numeric(3)	Numeric	Yes	

5.4   Table 4.0(Pilots)

Field Name	Field Type	Data Type	Mandatory	Possible Values
Pilot ID	Auto-generated(8)	Numeric	Yes	
License Number	Text(100)	Alphabetic	Yes	
Address Line 1	Text(100)	Alphanumeric	Yes	
Address Line 2	Text(100)	Alphabetic	Yes	
City	Text(50)	Alphabetic	Yes	
State	Text(50)	Alphabetic	Yes	
Zip Code	Text(10)	Numeric	Yes	
SSN	Numeric(9)	Numeric	Yes	

5.5   Table 5.0(Hangar)

Field Name	Field Type	Data Type	Mandatory	Possible Values
Hangar ID	Auto-generated(8)	Numeric	Yes	
Manager ID	Text(100)	Alphabetic	Yes	
Manager Address Line 1	Text(100)	Alphanumeric	Yes	
Manager Address Line 2	Text(100)	Alphanumeric	No	
City	Text(50)	Alphabetic	Yes	
State	Text(50)	Alphabetic	Yes	
Zip Code	Text(10)	Numeric	Yes	

5.6   Table 5.0(Hangar status)

Field Name	Field Type	Data Type	Mandatory	Possible Values
Hangar ID	Auto-generated(8)	Numeric	Yes	
Manager ID	Text(100)	Alphabetic	Yes	
Status	Text(1)	Alphabetic	Yes	A - Available O - Occupied
Occupancy From date	Text(10)	Alphanumeric	No	
Occupancy till date	Text(10)	Alphanumeric	No	
Available from date	Text(10)	Alphanumeric	No	
Available	Text(10)	Alphanumeric	No	

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7.0 Change Log

Version Number	Changes Made			
V1.0.0	Initial baseline created on 7/02/2019 by Manonmani Guruswamy			
Vx.y.z	<Please refer the configuration control tool / change item status form if the details of changes are maintained separately. If not, the template given below needs to be followed>			
	Section No.	Changed By	Effective Date	Changes Effected