



Airport Management System

Business Requirements Document

V1.0

| | Prepared By / Last Updated By | Reviewed By | Approved By |
|-----------|-------------------------------|-------------|-------------|
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| 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

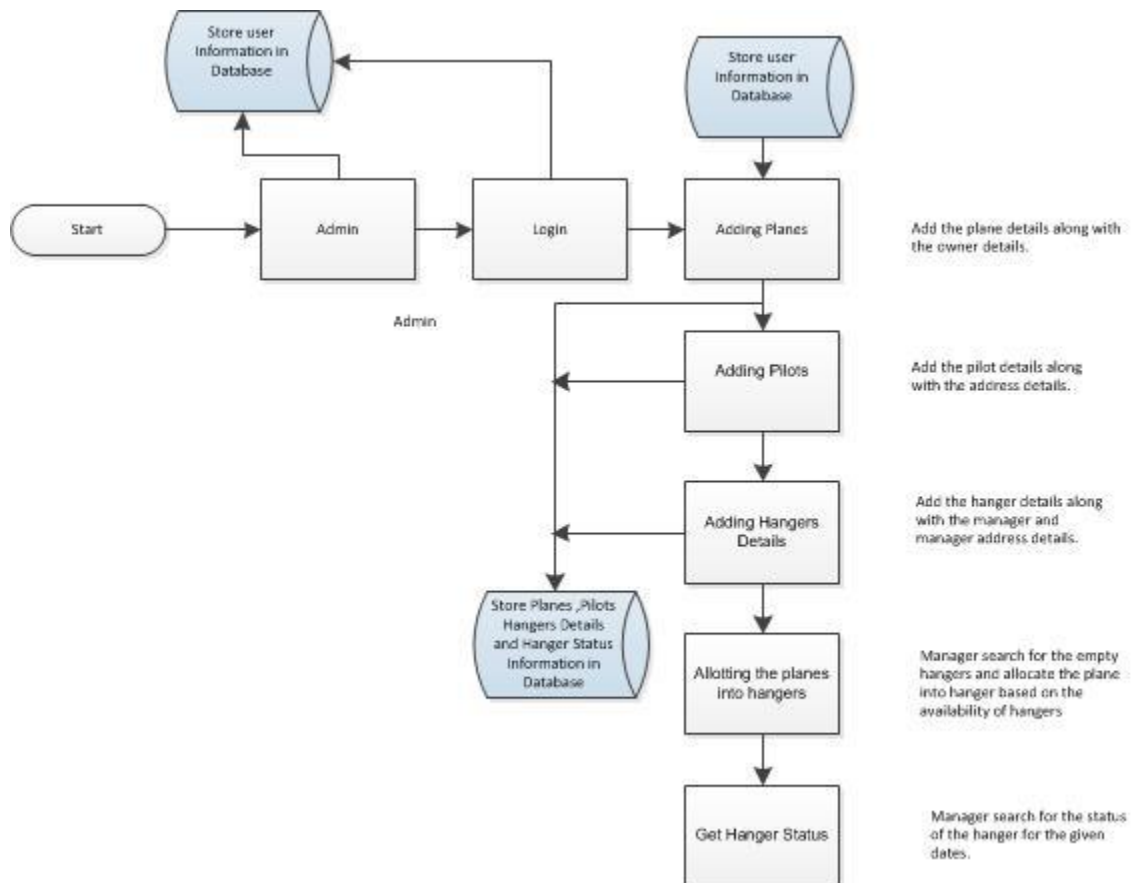
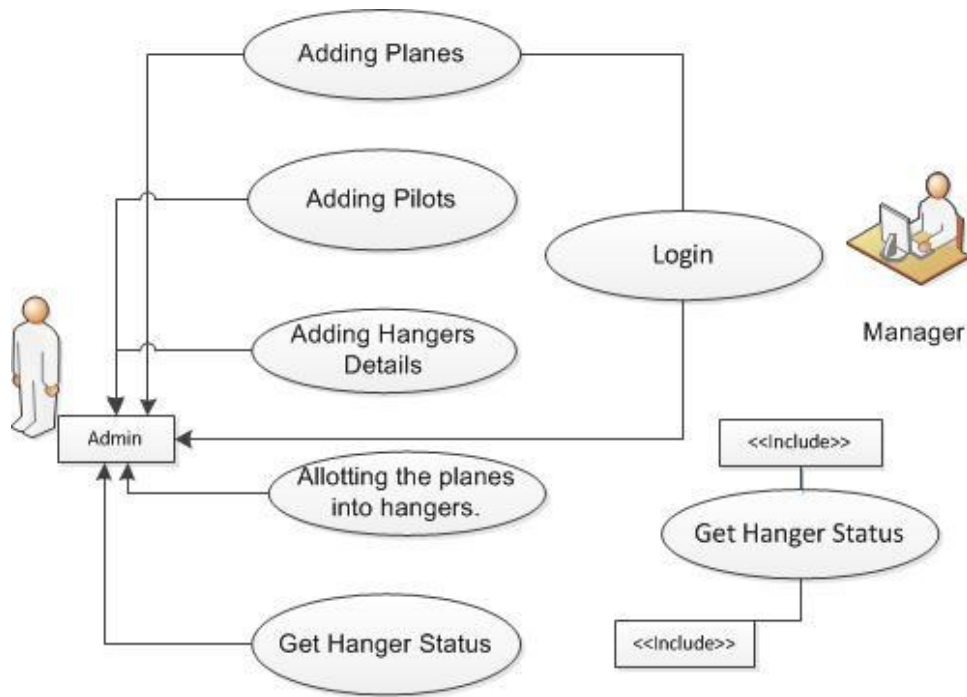
- All member of the project.
- Delivery Assurance Group.

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.





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 | |

| 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 hangar | 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 |

| | | | | |
|--------------------|------------|--------------|-----|-----------------|
| 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 | |

| | | | | |
|-----------|--|--|--|--|
| till date | | | | |
|-----------|--|--|--|--|

6.0 Terms & Conditions

Interns shall be solely responsible for all its acts and omissions under this program. Interns will comply at all times with all applicable laws. Interns shall not use Cognizant's name, logo and trademark in any promotional materials or other communications with third parties without the prior written consent of Cognizant. Any materials used by interns in relation to program will not infringe the copyrights, trademarks, patents, trade secrets or other intellectual property rights, privacy or similar rights of any person or entity. Interns agrees not to post, draw, make, display any content that is threatening, libelous, obscene, defamatory, abusive, pornographic, or advocates/encourages any conduct that could constitute a criminal offence or give rise to any civil liability. Cognizant its associates' personal details including but not limited to name, address, contact number shall not be shared or forwarded to any third party, without prior written consent of Cognizant, its associates. All intellectual property provided by Cognizant as part of program shall be owned exclusively by Cognizant. Intern shall indemnify, defend and indemnify Cognizant its associates, officers, directors from and against any claims, demands, loss, damage, liability, causes of action, judgments, or costs and expenses of every nature (including attorney's fees and expenses) incurred by Cognizant based on any claim that any breach of terms and conditions of this program.

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 |
| | | | | |