Solution Design Document

HR Sourcing and Tracking

Version 1.0

March 23, 2019

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1. Introduction

The Solution Design Document (SDD) describes the process chosen for automation. Xiaomi Technology India PVT Ltd has selected HR Sourcing and Tracking process as one of the processes for automation. This document describes in detail how the automation of this process will be accomplished.

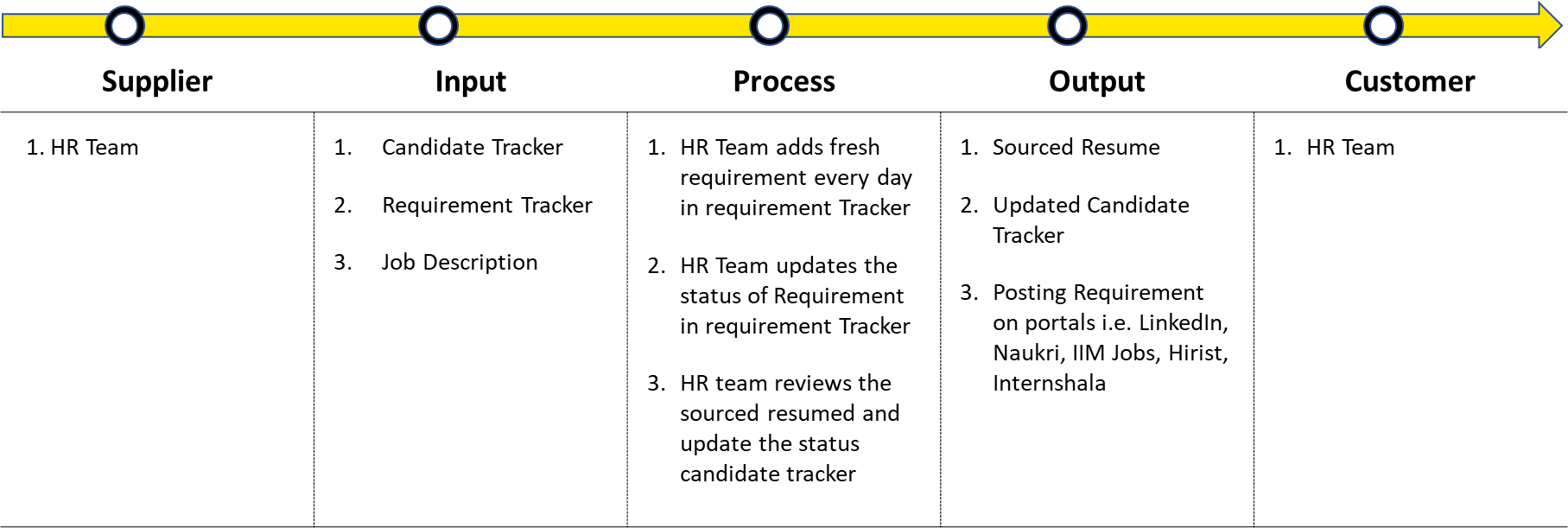
Automation scope HR Sourcing process involves 3 main activities.

1. Sourcing of Resume/Candidate Profiles from Naukri, IIM Jobs and Hirist.
2. Posting Requirements on Naukri, IIM Jobs, Hirist and Internshala.
3. Tracking and maintaining Candidate and Requirement Tracker.

Below is a table that summarizes HR Sourcing and Tracking Automation

|  |  |
| --- | --- |
| **Attribute** | **Description** |
| Business Scope | Sourcing and Tracking Candidate profiles |
| Job Portals | IIM Jobs, Naukri.com, Hirist.com, Internshala |
| Process Output | Stage 1: Sourcing Resume or Candidate Profile and Posting Requirements  Stage 2: Tracking in Report |
| Frequency | Daily ( Midnight to 1 AM ) |
| Transaction Volume | 10 – 20 Requirement / Day |
| Time Sensitivity | Candidate resume needs to be sourced as soon as possible |
| Dependencies | Candidate Status update and Sourcing details (Needs to be inputted manually be HR Team) |
| Failure Implications | Increase in effort, Delay in recruitment. |
| Process Criticality | Medium |
| Expected time for process to run | 1 Hour per Run |

1. Scope and Limitations
   1. SIPOC (Supplier, Input, Process, Output, Customer)



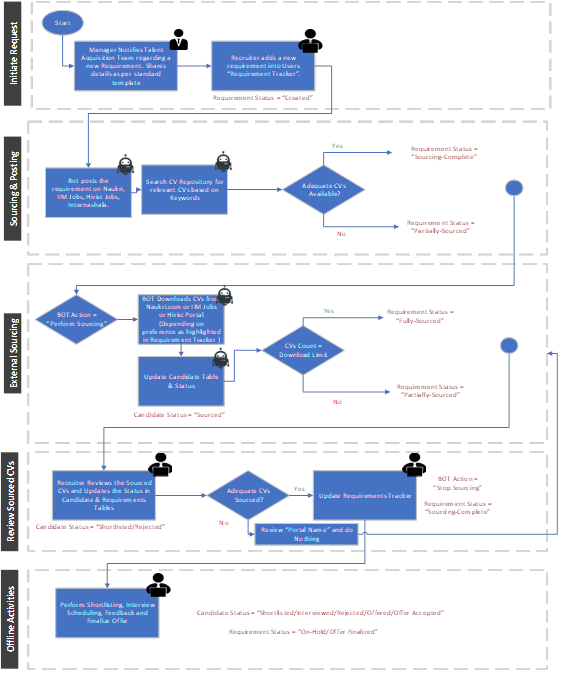
* 1. Systems in Scope

The following systems/ applications are in scope of the process:

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Application Names** | **Version and Type** | **Description** |
| 1 | Outlook | Office 365 | Sending respond emails. |
| 2 | Excel | Office 365 | Validate and update the Requirement and Candidate Tracker |
| 3 | Naukri.com | Website | Search and Post requirement on Portal |
| 4 | IIM Jobs .com | Website | Search and Post requirement on Portal |
| 5 | Hirist.com | Website | Search and Post requirement on Portal |
| 6 | LinkedIn.com | Website | Search and Post Job requirement on the Linked in Portal. (Details for linked In i.e. Credentials and other details to be shared by 24 Apr 2020 ) |
| 7 | Internshala.com | Website | Post job requirement on the Internshala portal |

* 1. Out of Scope
     1. Integration of the solution with Xiaomi Talent Recruit portal is currently out of scope for this solution.
     2. IJP, Referral and Vendor Email is out of Scope for current build
     3. Job posting and sourcing on LinkedIn Portal will be considered in scope for this build if details i.e. credentials and other details of linked in is provided by 24th April 2020. ( This may impact the timeline planned depending on complexity )
  2. To-Be Process in Scope

Below diagram, is a high-level representation of the process in scope is illustrated as follows:



* 1. To-Be Document Templates

Below is a list of all the trackers/reports used throughout the process:

* + 1. Input

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Input Name** | **Purpose** | **Template** |
| **Input for BOT** | | | |
| 1 | Requirement Tracker | Track each requirement as they come in from Business teams |  |
| 2 | Candidate Tracker | Track all the resume’s extracted / Downloaded from web portal |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **S No** | **Activity (Source/Post)** | **Trigger/ Purpose** | **Template** |
| 1. 1 | Source and Post (IIM Jobs) | Bot posts on IIM Job Portal where “Post (IIM Jobs)” in “Requirement Tracker” is “Yes”. Bot Sources resume from IIM Jobs portal if “Portal” is selected as “IIM Jobs” in “Requirement Tracker”. | Excel + JD |
| 1. 2 | Source and Post (Hirist) | Bot posts on Hirist Job Portal where “Post (Hirist Job)” in “Requirement Tracker” is “Yes”. Bot Sources resume from Hirist Job portal if “Portal” is selected as “Hirist Job” in “Requirement Tracker”. | Excel + JD |
| 1. 3 | Source and Post (Naukri) | Bot posts on Naukri Portal where “Post (Naukri)” in “Requirement Tracker” is “Yes”. Bot Sources resume from Naukri portal if “Portal” is selected as “Naukri” in “Requirement Tracker”. | Excel + JD |
| 1. 4 | Post (Internshala) | Bot posts on Internshala portal where “Post (Internshala)” in “Requirement Tracker” is “Yes” | Excel + JD |

* + 1. Files/Format of output files

|  |  |  |  |
| --- | --- | --- | --- |
| **Output from BOT** | | | |
| 1 | Trigger Email | Email Send by Bot on Trigger of Process |  |
| 2 | Status Email | Email Send by Bot with update on Resume Status/Sourcing. | Req ID and No of Resume extracted |
| 3 | Candidate Tracker | Updated Candidate Tracker |  |
| 4 | Requirement Tracker | Updated Requirement Tracker |  |
| 5 | Dashboard/Report | Report/Dashboard Generated for Resume Source so far. | Wednesday end of day execution to generate report of resume’s extracted by Bot in current week. |
| 6 | Transaction Log Sourcing |  |  |

1. Detailed To-Be Process Description

This chapter describes the chosen process in detail, which enable the developer to build the process. The individual steps are illustrated in screen shots for reference purposes.

* 1. Keystroke Level Process Description

This chapter describes the state of the process in detail and a broad classification of process activities between actors.

|  |  |  |
| --- | --- | --- |
| Reading from Requirement Tracker | | |
| **Step** | Details | Comment |
| 1 | Bot opens the Master Requirement Tracker |  |
| 2 | Bot validates the requirement if the resume needs to be source and also from which portal based on the following fields   * ”Bot Action” column * Count of CVs Column * Portal Name Column * Post ( Linked In ) * Post ( IIM Jobs ) * Post ( Internshala ) * Post ( Naukri.com ) | Bot only looks at the “Bot Action” column to decide the action bot needs to take. |
| 3 | Bot reads the following details from Requirement Tracker i.e.   * Skill 1 ( All ) * Skill 2 ( Any ) * Boolean: * Exp (Min) * Exp (Max) * CTC (Min) * CTC (Max) * Current Location * Preferred Location * Current Employer * Industry * Gender * Education * Active In * Notice Period | Fields which will be used to search on Job Portal |
| 4 | Bot will extract on CVs from suggested portal and suggested number of CVs |  |
| 5 | Bot will update the ”Candidate Tracker” and ”Bot Action” Column based on action performed. |  |

|  |  |  |
| --- | --- | --- |
| **Detailed Process – Sub Process 1 – Download Resume from Naukri .com –**  <https://www.naukri.com/recruit/login> | | |
| **Step** | Details | Comment |
| 1 | Navigate to the Naukri Url mentioned above. Naukri application appears login with username and password |  |
| 2 | Click on ”Advanced Search” |  |
| 3 | Enter the Role Name below. |  |
| 4 | Enter the details as shown in screenshot below. | **All Keywords (Must Have):** Skill 1\* (All)  **Any Keywords:** Skill 2\* (Any)  **Turn Boolean on:** Boolean  **Total Experience:**  **Min:** Exp (Min)  **Max:** Exp (Max)  **Annual Salary**  **Rs:** CTC (Min)  **To Rs** CTC (Max)  **Current Location:** Current Location  **Preferred Location:** Preferred Location |
| 5 | Enter the ” Employer” and ”Industry” as shown in screenshot below. | **Employer:** Current Employer  **Industry:** Industry |
| 6 | Enter the ”Diversity” Details in Additional details as shown in screenshot below. | **Diversity:** Gender |
| 7 | Enter the Education details as shown in screenshot below. | Education >  Specific UG Qualification  **Education:** Education  **Education Type:** Full - Time |
| 8 | Enter the detaisl of ”Activity” as shown in screenshot below. | **Active In:** Active In |
| 9 | After filling all the relevent information from Requirement tracker click on ”Search”    After clicking on search button we get all profiles. | **Notice Period:** Notice Period |
| 10 | Check if the profile has already been downloaded or not. Check based on name on Resume. | Bot will match the name of candidate in database to make sure that user has not already downloaded the resume. |
| 11 | After that we need to click on candiate name which will full details along with CV as well. |  |
| 12 | Click on Download CV which resume will download automatically in specified location. |  |

|  |  |  |
| --- | --- | --- |
| **Detailed Process – Sub Process 1 – Download Resume from IIM Jos .com –**  <https://recruit.immjobs.com> | | |
| **Step** | Details | Comment |
| 1 | Login to IIM jobs Portal as a recruit by using above mentioned URL. |  |
| 2 | Click on ”Search Resume” tab in home page then you will navigate to search candidate page where we are going to provide the candidate information |  |
| 3 | Role or skill set: Click on ”Keyword Search” and ”Enter the details”    Note: We are not supposed to click on search button, we need click on cross mark to updated remaining fields. | **All of the Keywords**: Skill 1\* (All)  **Any of the Keywords**: Skill 2\* (Any) |
| 4 | Experience Level:  We need to provide the experience by using below drop-down | **Min Exp:** Exp (Min)  **Max Exp:** Exp (Max) |
| 5 | In the Diversity tab, and click on ”Women Diversity” in case ”Gender” in Requirement Tracker is mentioned as ”Women” | **Diversity > Women Diversity**: Gender |
| 6 | Enter the details of Employer as mentioned in Requirement Tracker | **Employer:** Current Employer |
| 7 | Select the Industry as mentioned in Requirement Tracker. | **Industry:** Industry |
| 8 | Enter the Education detail as mentioned in Tracker. | **Education:** Education |
| 9 | Course type will always be ”Full Time” | **Education Type:** Full - Time |
| 10 | Enter the details of ”Current Location” as shown in screenshot below. | **Current Location:** Current Location |
| 11 | Enter the ”Preferred Location” as shown in screenshot below. | **Preferred Location**: Preferred Location |
| 12 | Enter the ”Min Salary” and ”Max Salary” as shown in screenshot below. | **Salary**  **Min Salary:** CTC (Min)  **Max Salary**: CTC (Max) |
| 13 | Enter the ”Notice Period” as shown in screenshot below. | **Notice Period**: Notice Period |
| 14 | Enter the ”Last Seen” details as shown in screenshot below. | **Filter by last seen:** Active in |
| 15 | Once given all required information, we need click on search tab which will display the details of candidate |  |
| 16 | After that click on candidate profile where we will get full information in same page as one pop-up | Bot will validate the candidate name in candidate tracker to check if the resume has not been already downloaded. |
| 17 | Once profile got opens in another pop-up, we can able to get option called Download where can able to download resumes  Click on Download option, resumes will download in specified location and finally click close cross mark will navigate back the old screen. |  |

|  |  |  |
| --- | --- | --- |
| **Web-Posting – Post job on Naukri.com** | | |
| **Step** | Details | Comment |
| 1 | Open the URL: <https://www.naukri.com/recruit/login?msg=TO&URL=https%3A%2F%2Frecruit.naukri.com> |  |
| 2 | Click on Login/Register tab.  A screenshot of a cell phone  Description automatically generated  Enter the recruiter credentials in email and password fields  Click on Login. | Username and Password will be stored in credential Vault.  Business user can login anytime and update the credential details. |
| 3 | On the home page navbar click Jobs & Responses.  A picture containing drawing  Description automatically generated  On Jobs & Responses select Post a private job |  |
| 4 |  |  |
| 5 | On Job details tab enter the required fields. A screenshot of a social media post  Description automatically generatedA screenshot of a social media post  Description automatically generated  Enter the details on the portal as expected by user. | Specify UG Qualification: Education (Recruitment Tracker)  Specify PG Classification: Education (Recruitment Tracker)    Job Title / Designation: Requirement Tracker  Job Description: JD document  Keywords: Requirement Tracker (Key Skill1, Key Skill 2)  Work Exp (Min and Max): Requirement Tracker  Annual CTC, Hide from Jobseekers. (To be ticked)  Location: Location  Industry: Requirement Tracker  Functional Area: Requirement Tracker |
| 6 | In Manage response tab either select RMS or Walk-in both which have different fields if you choose to fill one.  A screenshot of a cell phone  Description automatically generated | Receive Response on: RMS  Save to Requirement: “As New Requirement” (Requirement Tracker)  Email Address: Requirement Tracker  (Recruiter Email) |
| 7 | Now fill the email address to get responses from the candidates.  A screenshot of a social media post  Description automatically generated | Email Address: Recruitment Tracker (Recruiter Email) |
| 8 | In this next tab provide advertisement details like Company name, about company and other details.  A screenshot of a cell phone  Description automatically generated | Standard Value  Company Name: Xiaomi Technology India Pvt Ltd  About Company: “” |
| 9 |  |  |
| 10 | To provide additional company details click on ‘+’ button and fill the remaining fields.  A screenshot of a cell phone  Description automatically generated | Company Website: [www.xiaomi.com](http://www.xiaomi.com)  Contact Person:  Recruitment Tracker |
| 11 | In the Job branding tab upload photo, presentation and select company logo.  A screenshot of a cell phone  Description automatically generated |  |
| 12 | In the last tab select the refresh frequency.  A screenshot of a cell phone  Description automatically generated | NA |
| 13 | After completing these steps either select Preview& Post job or Save& Post later. | Click on Post Job |

|  |  |  |
| --- | --- | --- |
| **Web-Posting – Post job on**  <https://internshala.com/> | | |
| **Step** | Details | Comment |
| 1 | Click on ”Login” |  |
| 2 | Login to Internshala.com with ”Employer Credential”  Click on ”Post Internship” |  |
| 3 | Select the relevent ”Primary Porfile” | Requirement Tracker field: Skill 1 / Skill 2  If not match to anyone then “Others” |
| 4 | Fill in the relevent details on the Portal | Select Type of Internship: Regular  Internship City: Requirement Tracker  Is Part Time Allowed: No  Number of Opening: No of Position  Internship Start Date: Requirement Tracker  Internship Duration:  Requirement Tracker |
| 5 | Fill in the Interns Responsibilities based on Job Discription. | Role and Responsibility: Job Description |
| 6 | Fill in the stripend and Perks details. | Stipend and Perks:  Negotiable  Min and Max / Month: Requirement Tracker  Perks: Certificate, Informal Dress code, 5 Days a week, Free snacks & Beverages  Does this internship come with a Pre-Placement Offer (PPO): No |
| 7 | Click on ”Post Internship” to post the requirements. | Skills you are looking for: Requirement Tracker |

|  |  |  |
| --- | --- | --- |
| **Web-Posting – Post job on IIMJobs.com** | | |
| **Step** | Details | Comment |
| 1 | Login to IMM jobs Portal as a recruit by using above mentioned URL. |  |
| 2 | Click on ”Post Job” |  |
| 3 | Enter the releven details based on ”Requirement Tracker” | Job Title: Recruitment Tracker  Location: Recruitment Tracker  Year of Experience: Recruitment Tracker  Job Description: JD Document  YouTube URL for Video JD: NA  Targeting Industry: Recruitment Tracker |
| 4 | Fill in the relevent details base don requirement Trackers | Category: Recruitment Tracker  Function Area: Recruitment Tracker  Salary Min & Max: Recruitment Tracker |
| 5 | Fill in the relevent details in Requirement Tracker. | Course Type: Full Time |

|  |  |  |
| --- | --- | --- |
| Other Requirements | | |
| **Step** | Details | Comment |
| 1 | Bot will upload all data on daily basis to database with TimeStamp |  |
| 2 | Bot will generate report with details of resume extracted and dates. |  |

* 1. Validation/Checks (Before Clicking on CVs)

|  |  |  |
| --- | --- | --- |
| **Sl No** | **Validation** | **Validation Type** |
| 1 | Resume: Duplicate Check | Duplicate resume should not be downloaded by bot. |
| 2 | Salary / Budget check should match | Salary or Budget should bot be above the required limit. |

* 1. Table List (Tables to be created in Database)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl No** | **Table** | **Table Type** | **Columns** | **Description** |
| 1 | Candidate Tracker | Permanent | As per Template |  |
| 2 | Requirement Tracker | Permanent | As per Template |  |
| 3 | Audit Log Table |  |  |  |
| 4 | Candidate\_T\_Current Run | Temporary |  |  |
| 5 | Requirement T Current Run | Temporary |  |  |

* 1. Folder Structure



* 1. Exceptions

All exception will be flagged with appropriate description in Logs file. There will also be an email triggered for the exception. Operation team needs to manually process the exception cases.

|  |  |  |
| --- | --- | --- |
| **Sl No** | **Exception Scenario** | **Recovery & Alert Mechanism** |
| 1 | Credentials are expired for Naukri/IIM Jobs Portal | Bot will mark it as Technical Exception and send an email to Business and Support team |
| 2 | Relevant resumes are not available on the Portal | Bot will mark it as Business Exception and send an email at the end of full execution. |

Note: All the errors will be highlighted at the end of execution in status email.

* 1. Audit Trail

Automation solution will capture and store basic audit trail related information of each case, which will be used as Transaction log to identify the status of each stage and each case. It will be stored in database and user would have option to access it with the help of text log file.

|  |  |
| --- | --- |
| **Field** | **Description** |
| Timestamp | Date- Time of execution |
| Task Name | Name of the Task being executed by bot |
| Activity | Brief description of Activity being performed by Bot |
| Username | User/Machine on which Bot is running. |

* 1. Robot Transaction Logging

There will be a view available in database for Transaction logs. Historical data can be generated and shared on request basis by support team.

* 1. Credential Requirement

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl No** | **No** | **Bot ID and Naming Convention** | **ID Name** | **Environment** |
| 1 | 01 | BOT ID 01 | SIT\_HRSourcingTrack\_Robo01 | SIT |
| 2 | 01 | BOT ID 01 | UAT\_ HRSourcingTrack \_Robo01 | UAT |
| 3 | 01 | BOT ID 01 | PROD\_ HRSourcingTrack \_Robo01 | Production |

* 1. License Requirement

|  |  |
| --- | --- |
| **Bot Type** | **Number of License Required** |
| Un-Attended Runtime Bot | 1 (License will be utilized for 1 hour per day for every weekday) |

* 1. Data Privacy

After completion of execution any data in bot memory related to transaction like Candidate Name, Requirement ID etc. will be deleted. All data required for further processing will be stored in SQL Server or Shared folder.

* 1. Data Archival

All logs and reports generated by bot will be stored / archived based on Xiaomi data archival policy. This can be further discussed and finalized with business team later.

* 1. Assumptions

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl No** | **Description** | **Assumption/Risk** | **Business/Technical** | **Status** | **Mitigation** |
| 1 | Any change or upgrade to external systems, i.e. Naukri/IIM Jobs would require change to solution. | Risk | Technical | Open | Business team to update the support team if there is any change / update on the website. |

1. Considerations for Testing
   1. Unit Testing

This testing is done on the developer ends in Developer environment with using test data provided by business.

|  |  |
| --- | --- |
| Virtual Machine | TBD |
| Shared Folder Path | TBD |
| Frequency, Duration | TBD |

Note: Test case document will be updated during SIT stage.

* 1. Acceptance Testing

This testing will be done by business team in Production environment. During this phase, project team will provide support in resolving any issue or in making any tweaks in the BOT processing.

|  |  |
| --- | --- |
| Orchestrator Server | TBD |
| Virtual Machine | TBD |
| Shared Folder Path | TBD |
| Frequency, Duration | Daily for 1 week |

Note: Test cases needs to be shared by business team, in line with Unit Testing Test cases mentioned in section 4.1

* 1. Requirements for moving to Production environment
     1. QA report
     2. Acceptance email- Endorsement from SME for UAT complete
     3. UAT Test case report
     4. Endorsement from Supervisor and Manager

1. Ongoing Management
   1. Monitoring & Troubleshooting Guide

This section will be updated post development in SIT phase.