



# FINAL REPORT

GROUP 5



**Seniors  
Services  
Society**  
of B.C.

# Our Team



**Alan Chen**



**Sylvia Wang**



**William Wu**



**Silvy Lin**



Seniors  
Services  
Society  
of B.C.



## About SSSBC

- Non-profit Organization in BC located in New Westminster
- Offers several services for low-income seniors aged above 60
  - Housing Navigation
  - Tax Completion
  - Community Education
  - Better-at-home Support

19 Total Staff

50+ Volunteers

\$1,000,000+  
In operating budget  
for all services

# SSSBC's Mission

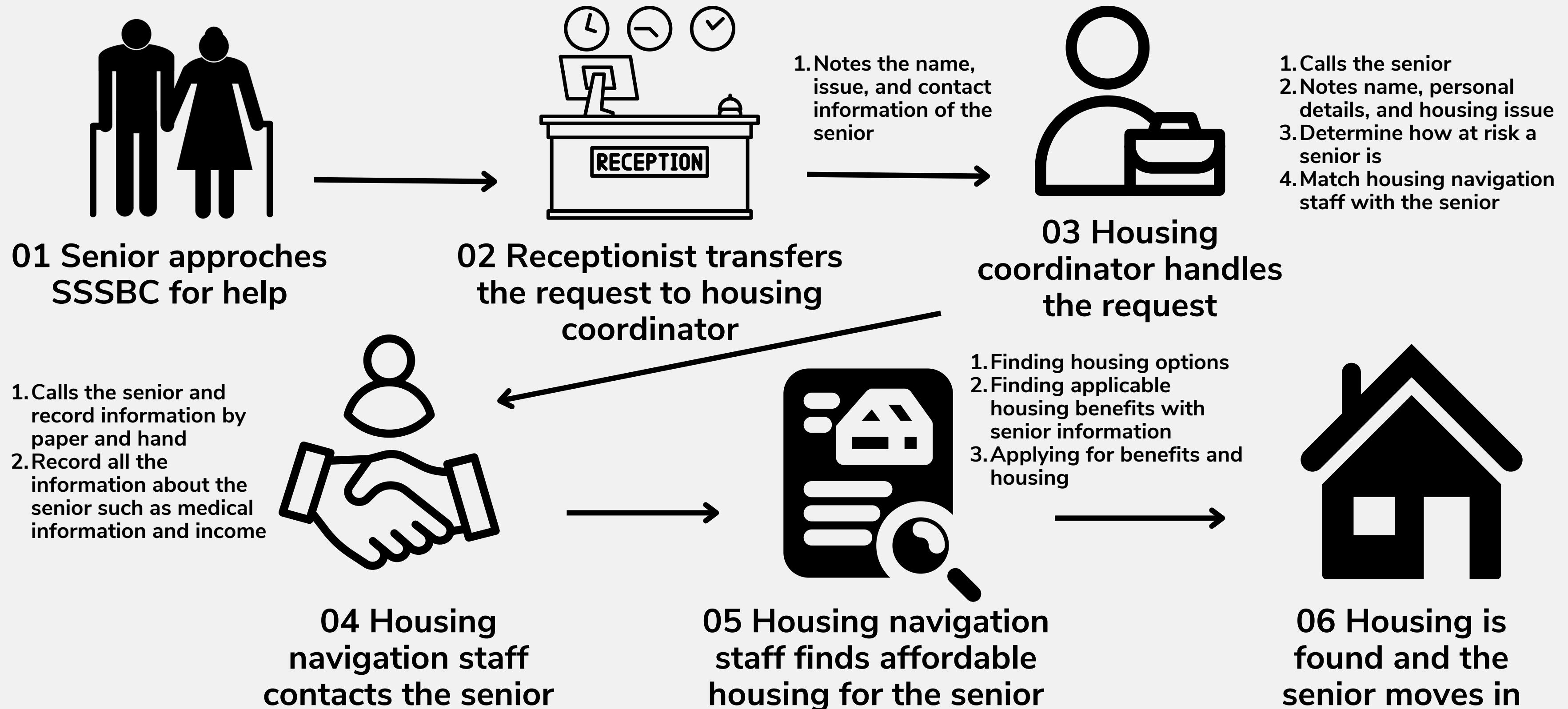
**"To connect adults 60+ with individual supports and housing navigation services to enhance their lives"**



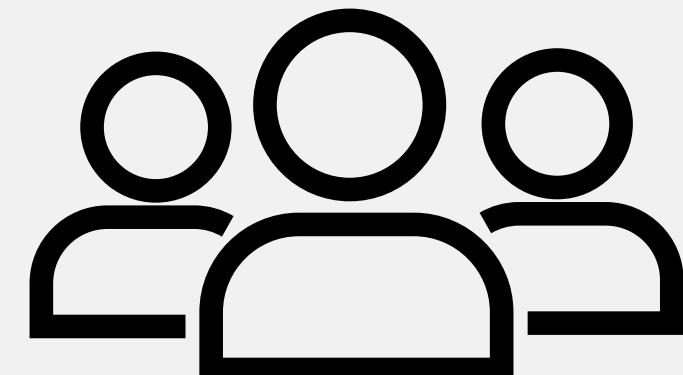
# Work System: Housing Navigation System

**Root Definition:** The Housing Navigation System helps low-income seniors find homes, by means of connecting them with available housing and benefit options, to allow SSSBC to meet its mission and improve housing security for seniors

# Housing Navigation System Overview



# Work System Snapshot: Customers



OVERVIEW

WORK SYSTEM

PROBLEM ANALYSIS

REQUIREMENTS&  
CONSTRAINTS

ALTERNATIVES

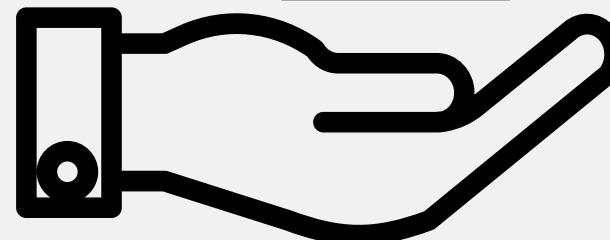
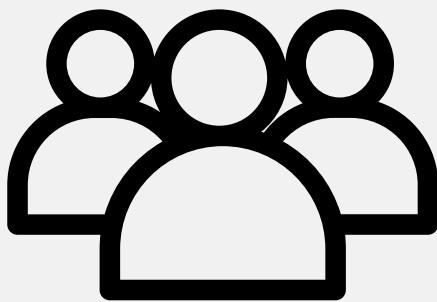
RECOMMENDATION

IMPACT ANALYSIS

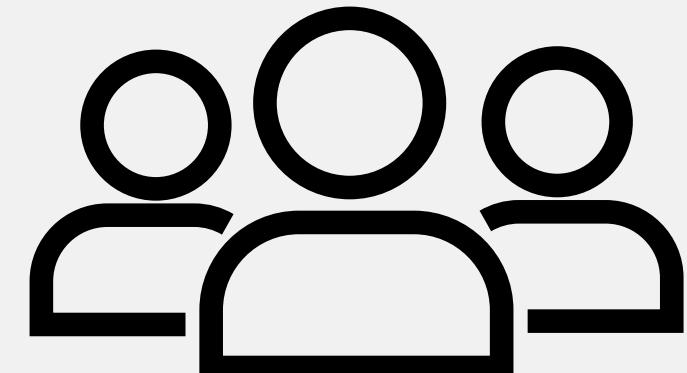
# Work System Snapshot: Services



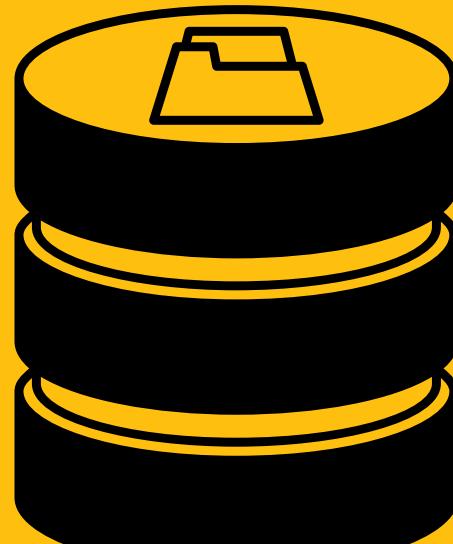
01 Housing  
Navigation Service



# Work System Snapshot: Participants



# Work System Snapshot: Information



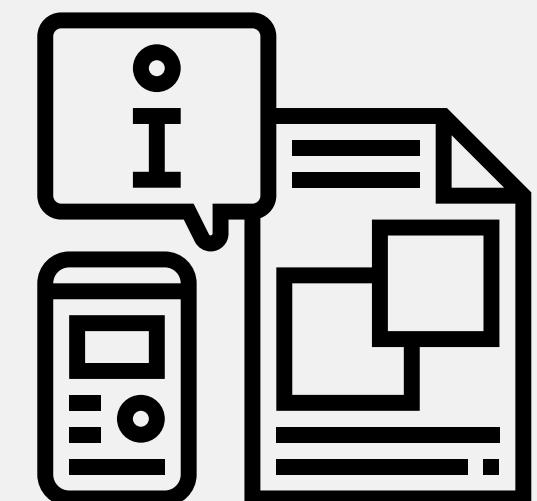
01 Seniors  
Information



02 Seniors  
Files



03 Housing  
Availability



# Work System Snapshot: Technologies



# Problem Statement

The current database technology and management are inefficient to support the work system to provide services to enough seniors

## Problem Breakdown

1. During intake process, the same information is asked three times, resulting in time wasted because data aren't centralized
2. Spends 2 hours inputting data after each meeting with a senior
3. During data input, program is often stuck resulting in data loss
4. During data retrieval, it takes over 5 minutes to load up the database and filter options are limited

## Root Cause

- Database is hard to use (and over 20 years old)
- Staff prefer not to use it
  - Staff manage data in different places. Lack of standardization on data management

# Problem Statement

The current database technology and management are inefficient to support the work system to provide services to enough seniors

## Problem Breakdown

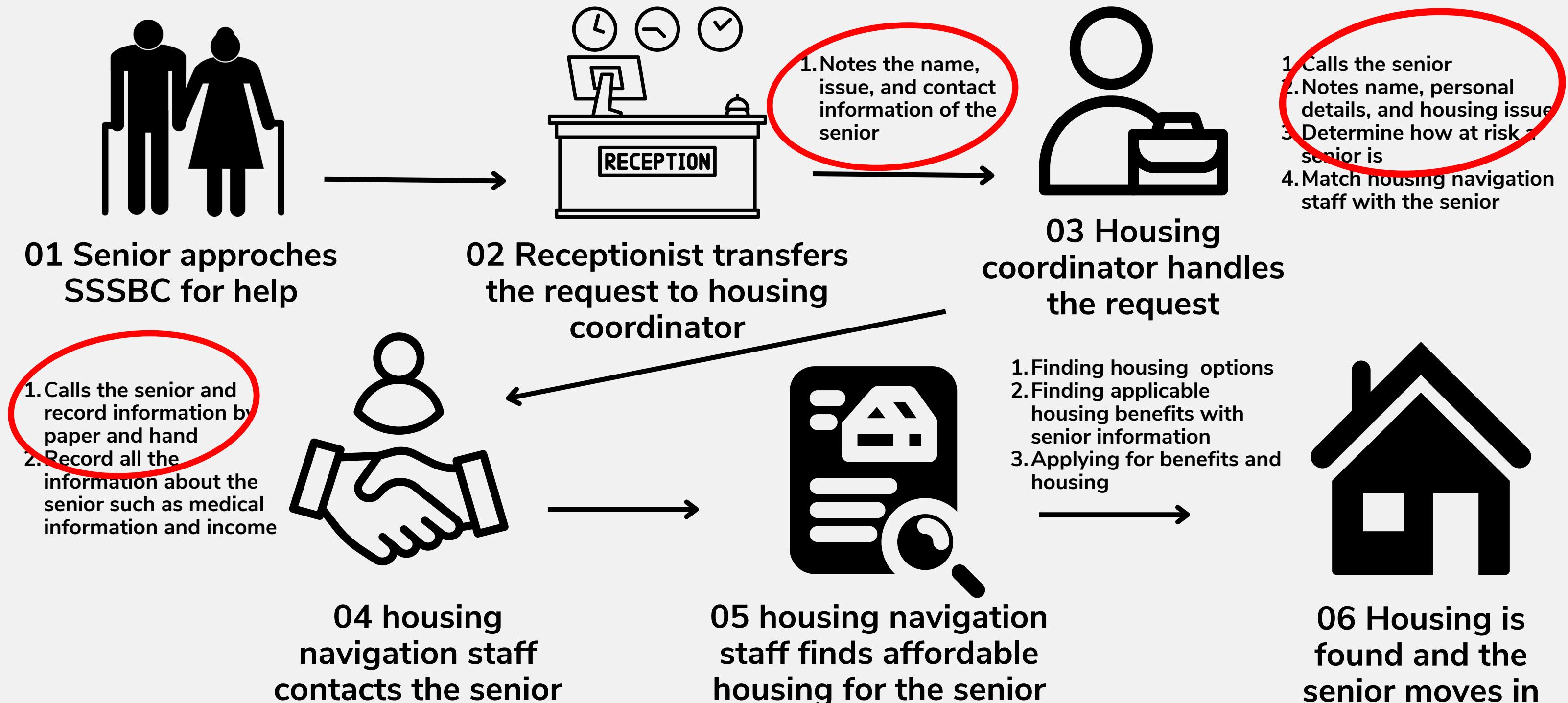
1. During intake process, the same information is asked three times, resulting in time wasted because data aren't centralized
2. Spends 2 hours inputting data after each meeting with a senior
3. During data input, program is often stuck resulting in data loss
4. During data retrieval, it takes over 5 minutes to load up the database and filter options are limited

## Root Cause

- Database is hard to use (and over 20 years old)
- Staff prefer not to use it
  - Staff manage data in different places. Lack of standardization on data management

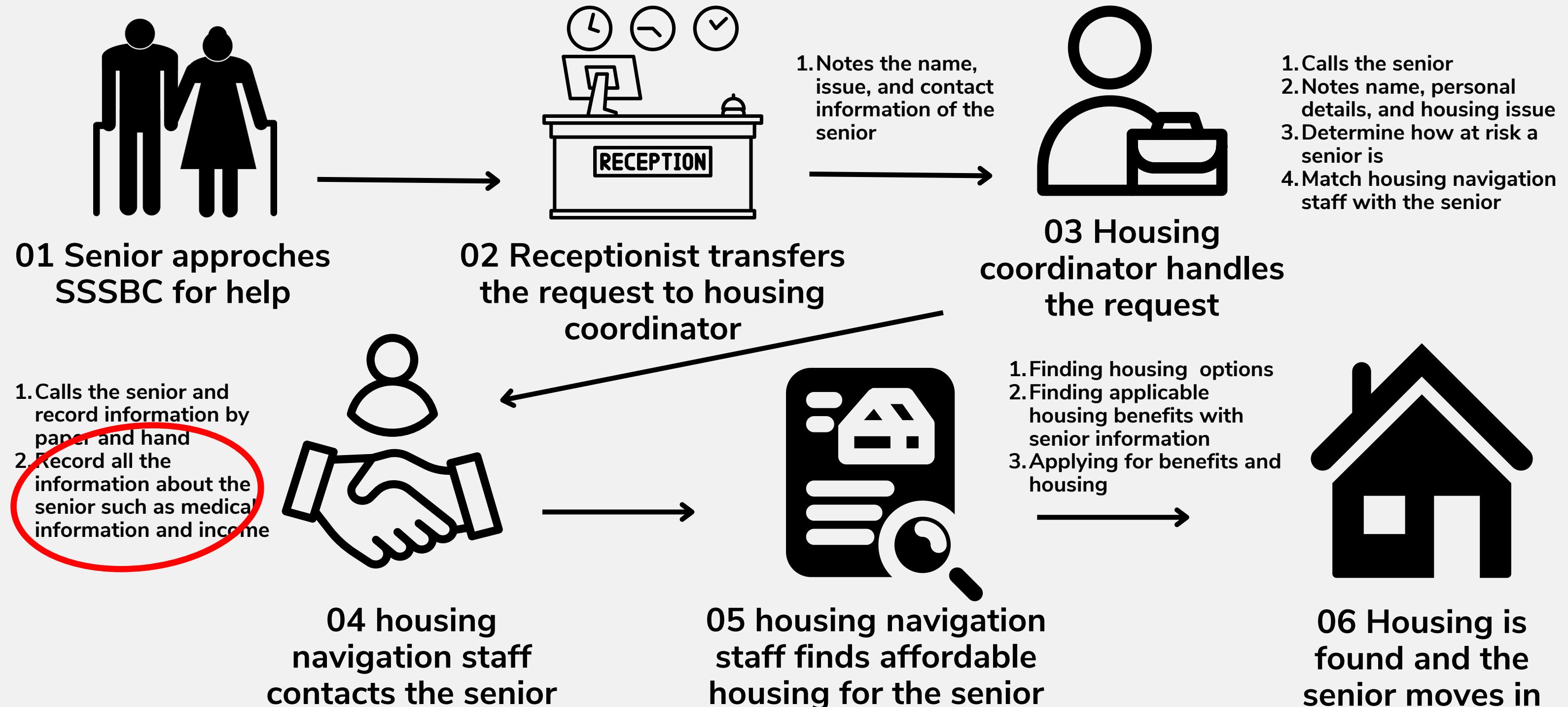
# Problem Breakdown

**Process issue:** During intake process, the same information is asked three times.



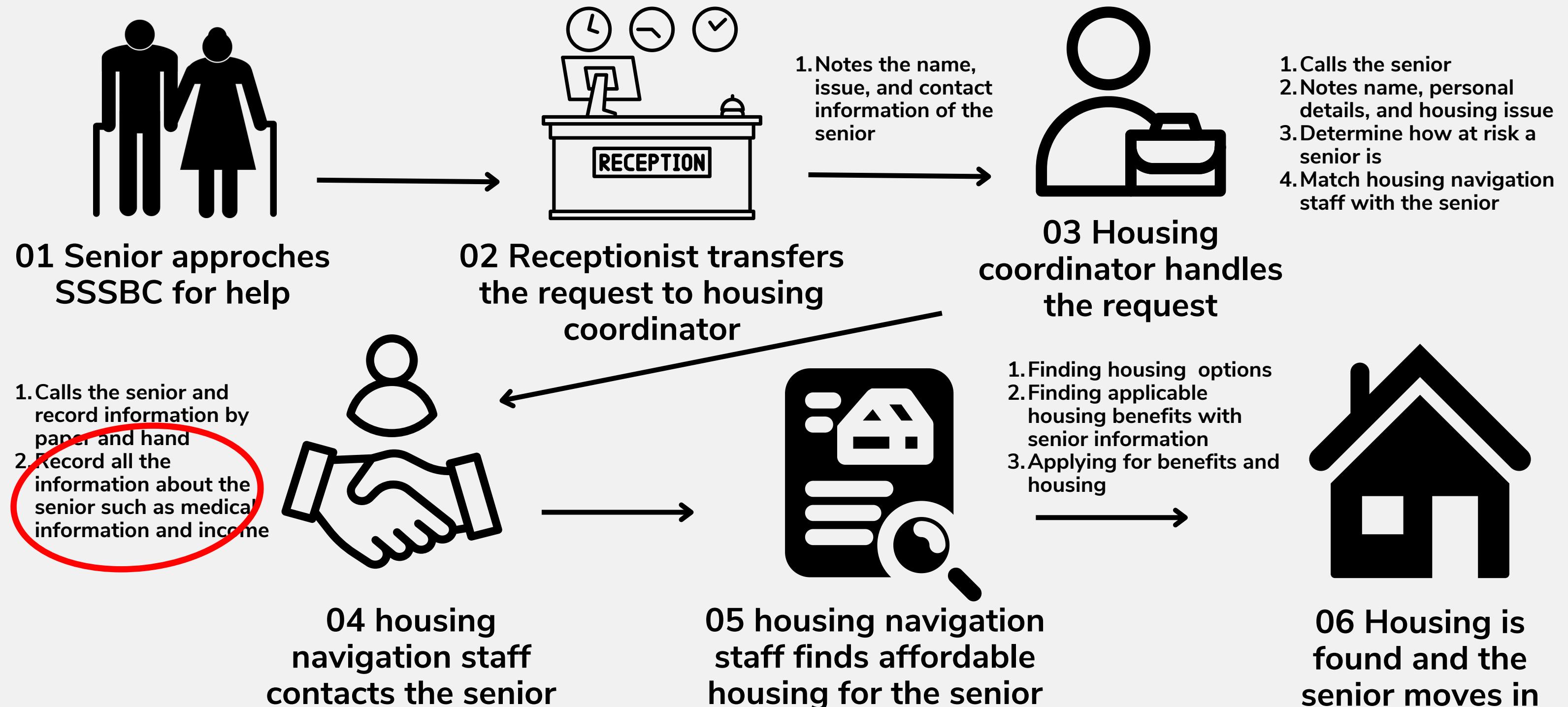
# Problem Breakdown

**Process issue:** Spends 2 hours inputting data after each meeting with a senior.



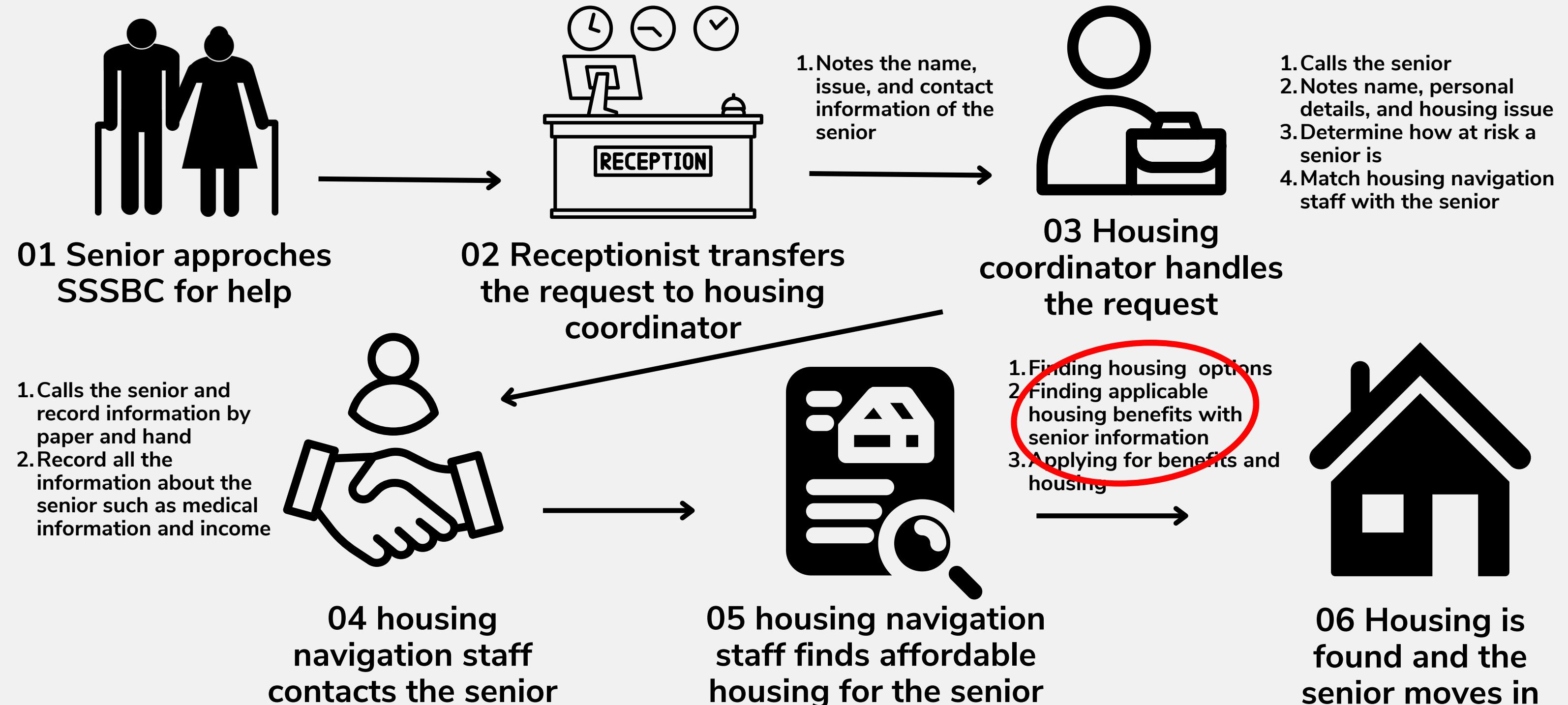
# Problem Breakdown

**Technology issue: During data input, program is often stuck resulting in data loss**



# Problem Breakdown

Technology issue: During data retrieval, the database loading time is long and filter options are limited



# Problem Statement

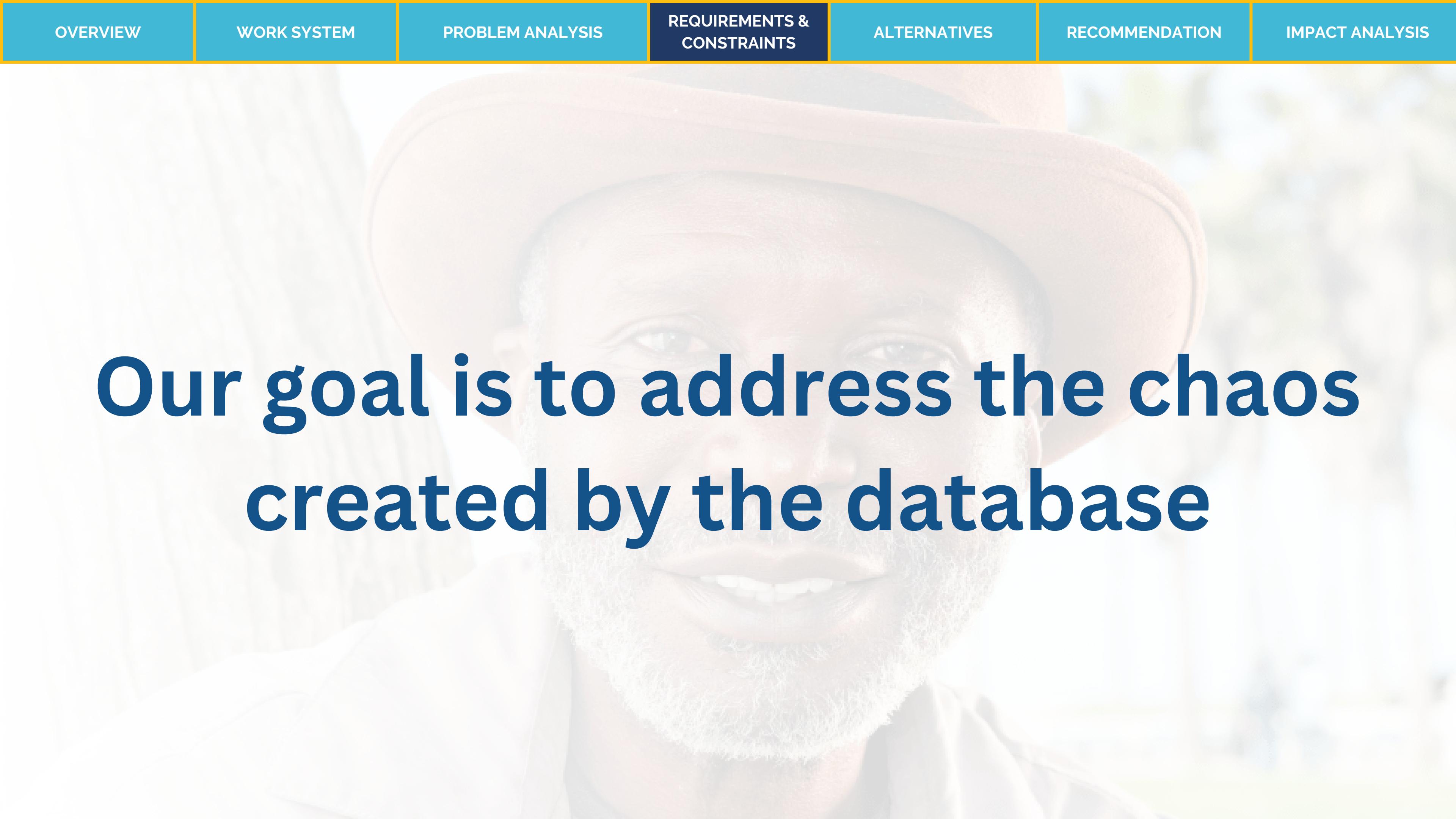
The current database technology and management are inefficient to support the work system to provide services to enough seniors

## Problem Breakdown

1. During intake process, the same information is asked three times, resulting in time wasted because data aren't centralized
2. Spends 2 hours inputting data after each meeting with a senior
3. During data input, program is often stuck resulting in data loss
4. During data retrieval, it takes over 5 minutes to load up the database and filter options are limited

## Root Cause

- Database is hard to use (and over 20 years old)
- Staff prefer not to use it
  - Staff manage data in different places. Lack of standardization on data management



**Our goal is to address the chaos  
created by the database**



## Functional Requirements

### MUST HAVE

- Senior Profile Management: The system **must** allow SSSBC to create and manage profiles for seniors, including personal information like ages, income, and contact details along with files like tax returns.
- Search and Filtering: The system **must** provide search and filtering functionality that allows staff to locate seniors' data using their name, phone number, and/or others information.
- Remote Access: The system **must** be accessible remotely from outside of the office.

### NICE TO HAVE

- Data Analytics: The system **could** be able to analyze data on seniors' demographics, service usage, and other factors to help better decision-making and improve service delivery.



## Non-Functional Requirements

### ENSURES THE SYSTEM IS CONVENIENT TO USE

- Reliability: The system must be reliable and not fail or lose data.
- Performance: The system must be able to perform queries and retrieve data quickly.
- Ease of use: The system must be easy to add records to, use, and navigate, even for non-technical staff members.

### DUTY OF CARE

- Security of PII: The system must have security measures to protect Personal Identifiable Information (PII).

### MAINTAINABLE

- Support: The system must be supported by a vendor or service provider who can provide technical assistance like data migration and resolve any issues that arise.

# Constraints



## Limited technical expertise

- Rely heavily on support from QuickTech
- Have no technical expertise in the organization



## Budget

- Non-profit organization with limited cash reserved
- A one-time fee of \$100,000, \$50,000 for annually recurring cost

# Alternatives

## 01 Status Quo

- Utilize the old database and in case of downtime, temporarily store data in an excel file until the database is up, and then migrate all the data.

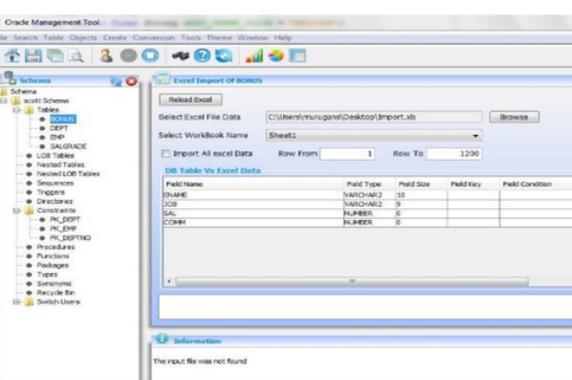


Fig. 5. Excel Import Feature.

## 02 CHASS Database 2.0

- Upgrading current database into a cloud environment.
- Keeping same scope of functionalities and data use.

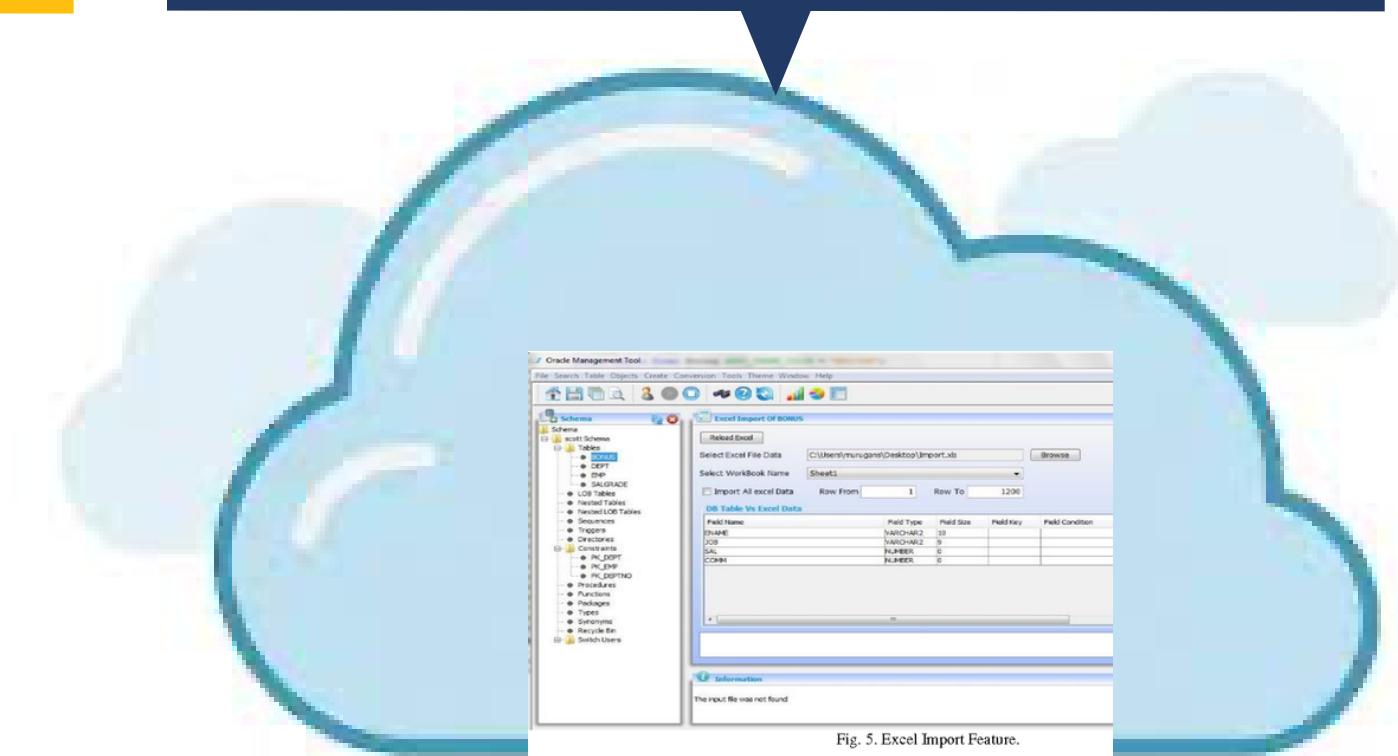
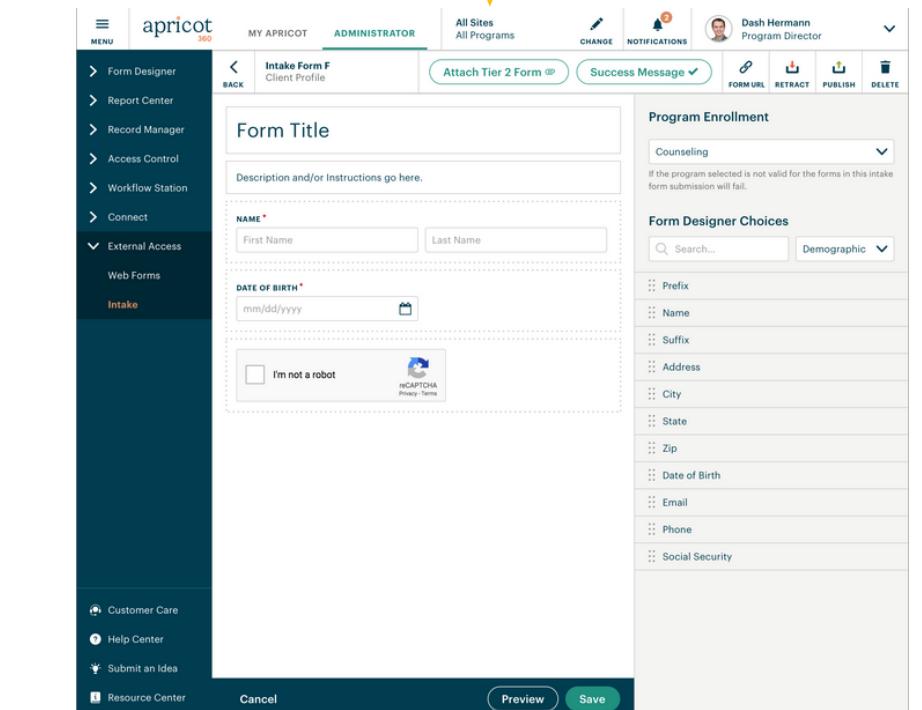


Fig. 5. Excel Import Feature.

## 03 3rd-Party Software

- Migrating to a new Case Management software.
- Increasing the scope of functionalities using the system.

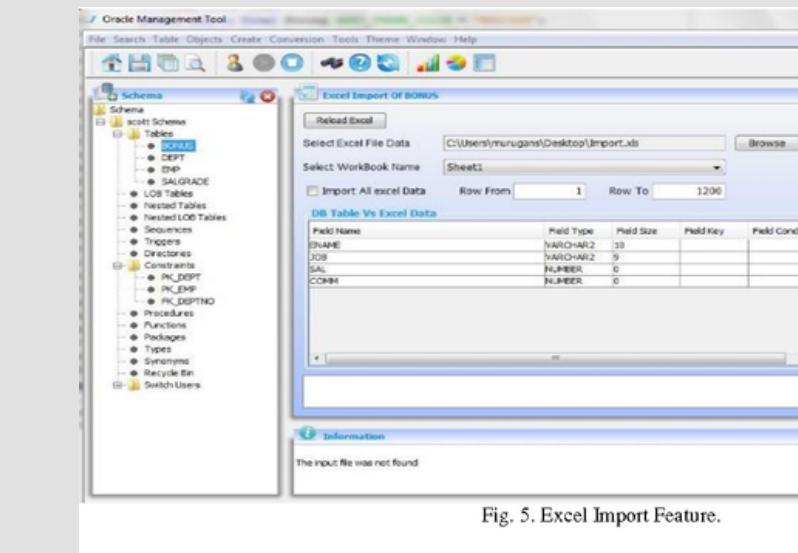


# Deeper Dive

## Alternative 1: Status Quo

### What does this involve?

1. Utilize the current CHASS database
2. If database is down, temporarily store data in an excel file
3. When the database is up again, migrate data from excel back into the database



### Benefits

1. No additional costs
2. No additional training

### Considerations

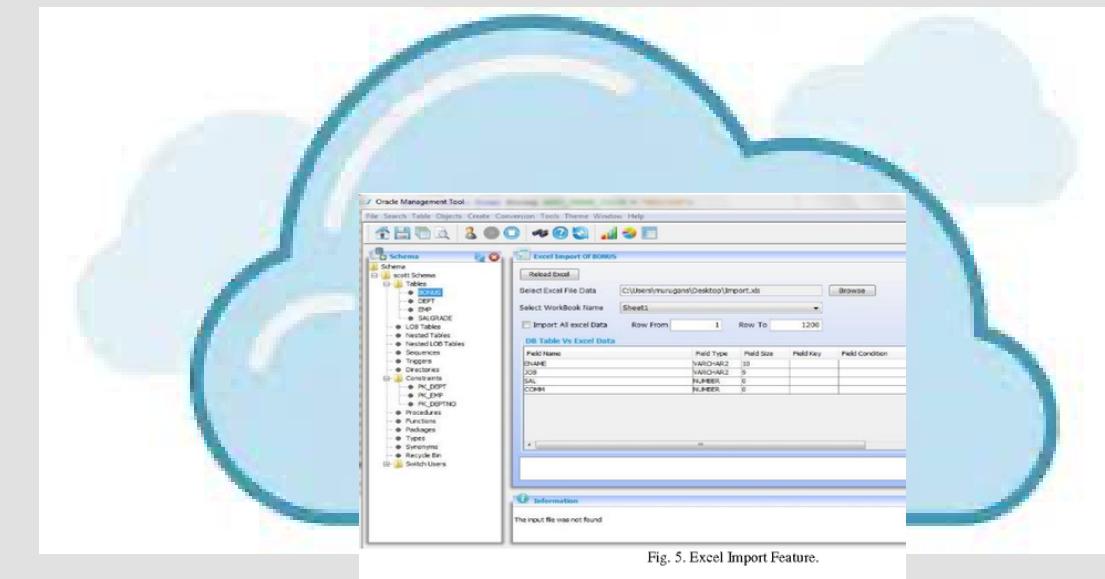
1. CHASS database is nearing its "End-of-life" as support by IT Contractor is more difficult.
2. Will continue dealing with current problems of inconveniences and time wasted from data loss and technology unresponsiveness.

# Deeper Dive

## Alternative 2: CHASS Database 2.0

### What does this involve?

1. Upgrading SSSBC's current central CHASS Database into a new cloud-based database technology
2. No changes made to current work processes and data functions.



### Benefits

1. Maintainable by IT Contractor
2. Minimal cognitive dissonance in learning new tools
3. Cloud database may be accessible remotely

### Considerations

1. Building a secure cloud environment requires specialized expertise
2. Expensive capital costs
3. Will not solve process problems, which may require new functionalities in the system
4. Adding new features may be costly and risky

# Deeper Dive

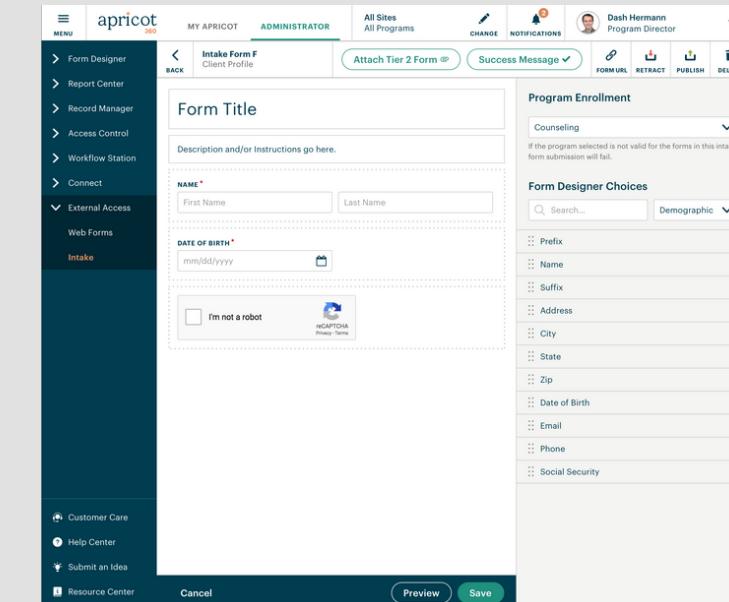
## Alternative 3: 3rd Party Case Management Software

### What does this involve?

Moving away from CHASS into a 3rd party case management software

This means pre-built functions SSSBC can configure and use

Can expand the scope of what's stored and uses the system, such as integrating intake process also into one system



### Benefits

1. Security built-in
2. Can have support via vendor
3. Web-based platform
4. Can easily add new features to current solve process issues

### Considerations

1. Higher operating expenses as it's subscription-based
2. Learning curve

# Alternatives Decision Matrix

Scale: 0 to 5

CRITERIA	WEIGHTAGE	01 Status Quo		02 CHASS Database 2.0		03 3rd-Party Software	
		RATING	TOTAL	RATING	TOTAL	RATING	TOTAL
Managing Senior Profile	3	5	15	5	15	5	15
Search and Filtering	2	3	6	3	6	3	6
Remote Access	3	0	0	5	15	5	15
Data Analytics	2	1	2	1	2	5	10
Security	3	2	6	1	3	5	15
Reliability	2	1	2	5	10	5	10
Performance	2	1	2	5	10	5	10
Ease of adoption	2	5	10	5	10	2	4
Budget	2	5	10	1	2	5	10
Support	2	2	4	2	4	5	10
		TOTAL		TOTAL		TOTAL	

# Recommendation |

## 01 Status Quo

- Utilize the old database and in case of downtime, temporarily store data in an excel file until the database is up, and then migrate all the data.

### Pros:

- No cost
- No extra learning required

### Cons:

- Does not address the root problem
- Current database at "end of life"

## 02 CHASS Database 2.0

- Upgrading current database into a cloud environment
- Keeping same scope of functionalities and data use

### Pros:

- Customized
- Reduces cognitive dissonance in learning new tools

### Cons:

- Time-consuming
- Costly to set up
- More difficult to be secure, hosting PII

## 03 3rd-Party Software

- Migrating to a new Case Management software
- Increasing the scope of functionalities using the system

### Pros:

- Time efficient
- No ownership of DB/Stack required
- SOC2 compliant for enhanced security
- Advanced features (eg, intake, scheduling)
- Includes data analytics.

### Cons:

- Relatively steep learning curve
- Higher operating expenses

Budget: a one-time fee of \$100,000, in addition to an annual expenditure of approximately \$50,000.

# Recommendation

Upgrade to **Case Management Software** for better data management and user experience USING APRICOT CORE



- Centralizes data from multiple sources
- One-stop platform for better data management, reporting, and insights
- Streamlines operations and improves user experience
- Optimizes client intake and scheduling workflows
- Achieves operational excellence with enhanced efficiency and productivity.

apricot

SAP®

salesforce

ORACLE

Cloud-based

Data security

Advanced features

Data Analytics

Cost

Support

## Apricot Core

- Apricot is a **cloud-based web app** with **advanced features** (eg, multi-field duplication check, advanced search and filtering, file uploads, intake and scheduling form, workflow customization) and **data analytics**
- Secure cybersecurity measures have been implemented, meeting **SOC2, HIPAA, and PIPA compliance** standards to protect PII
- Apricot exclusively serves **non-profit organizations**, offering customized functionalities and affordable pricing, in contrast to traditional B2B CRM software

Within budget for  
SSBBC

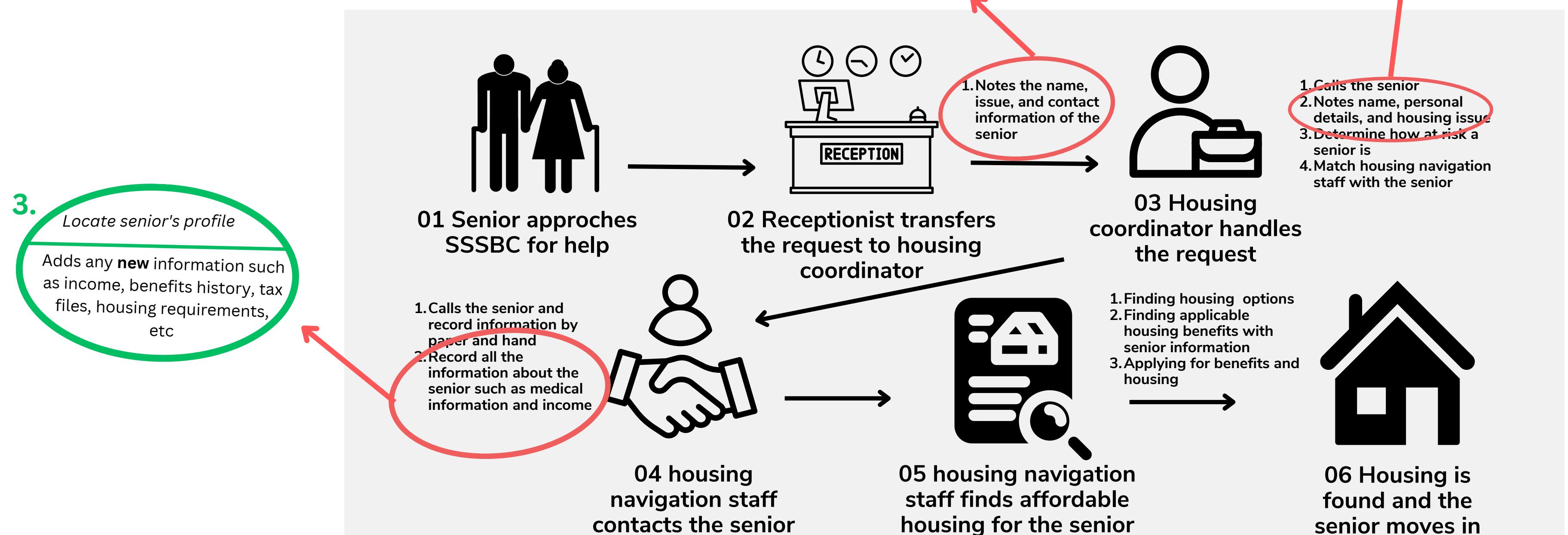
## Vendor Selection: Apricot Core

Details & Next Steps



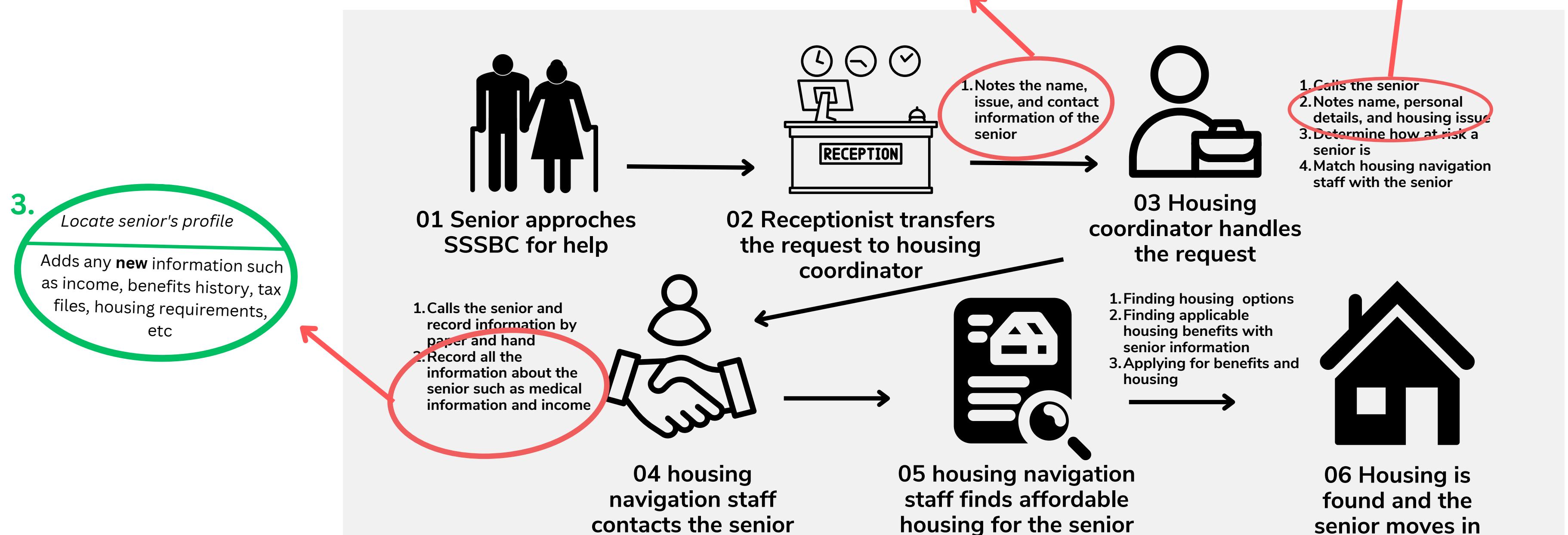
# Changing how staff interact with system:

Information is added into the system, as it becomes known to SSSBC



# Changing how staff interact with system:

Information is added into the system, as it becomes known to SSSBC



# Expected benefits to the system interaction changes:

~~During intake process, the same information is asked three times.~~

~~Takes Housing Navigator 2 hours inputting data after each meeting with a senior.~~

1. Seniors (often in an **emotional breakdown**) do not need to repeat information and their story multiple times.

2. Staff are **ready to dive in** to helping seniors right away, as information from previous steps is already accessible.

3. Housing navigator that is currently the "bottleneck", **saves time** in "inputting info" as profile creation/basic information inputting gets done by Receptionist and Housing Coordinator in earlier steps.



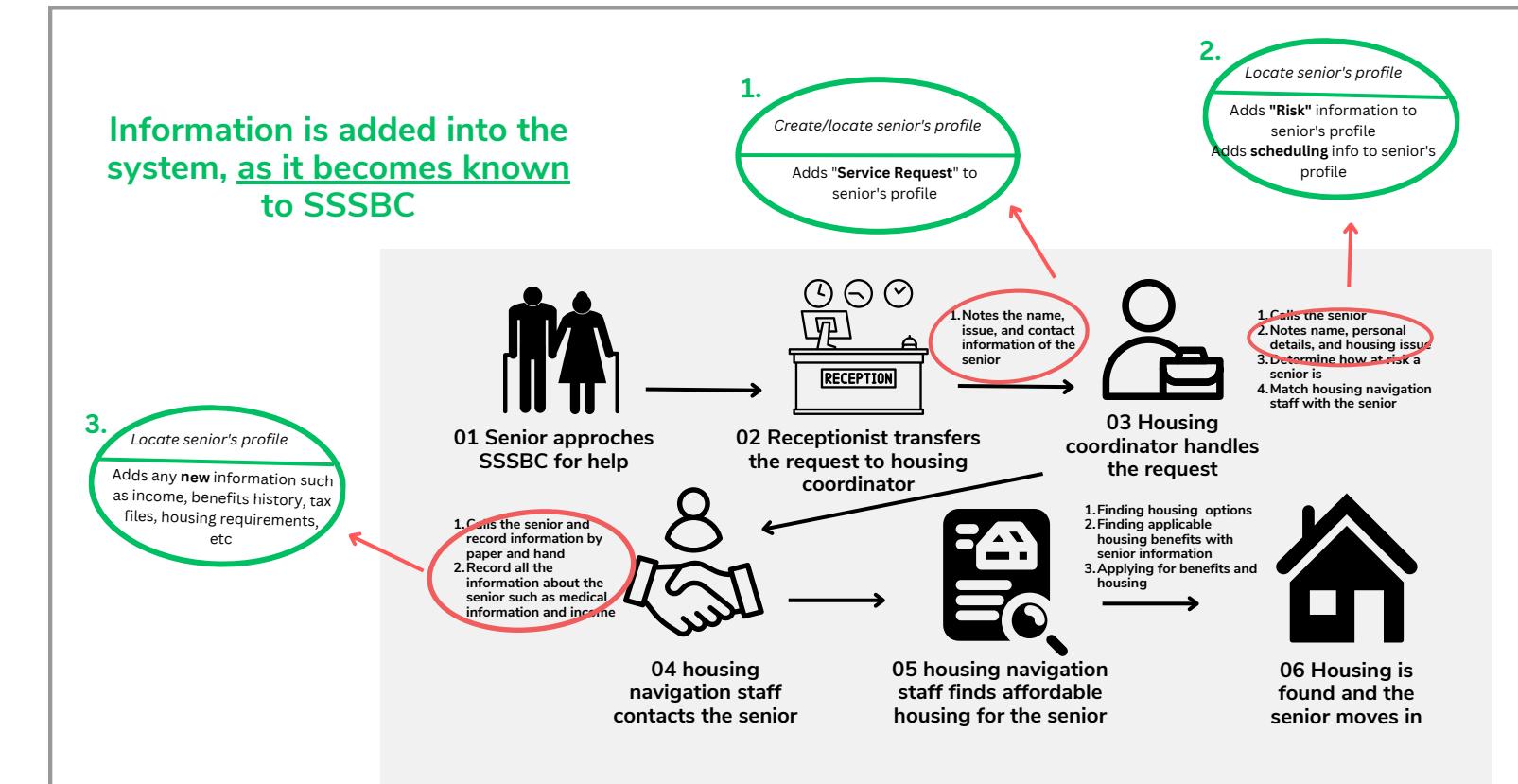
**Improvements in seniors' experience**

=>(Value of SSSBC)



**Capacity to help more seniors live off the streets**

=>(Mission of SSSBC)





# Q & A