Part II of project document describes structure and behaviour of project through different UML diagrams. Part II individual section consists of :

1) List of requirement IDs
2) Use case documents
3) Activity diagrams
4) Sequence diagrams

1) List of requirement IDs for use case 03 - start communication

UR - 014	Accept request	start communication	caretaker

UR - 029	accept caretaker request	start communication	owner

UR - 016	Generate temporary chat box	start communication	Owner, caretaker
UR - 017	Delete any previous chat box	start communication	Owner, caretaker

UR - 023	open chat box	start communication	owner
UR - 024	Send message	start communication	Owner, caretaker
UR - 025	Accept Agreement	start communication	Owner, caretaker

2) Use case document

Each use case document lists functionality of system and their interaction with actors involved in system. It also gives sequence in which actors make use of the functionality provided. Preconditions and postconditions are listed in the document.

Use Case ID:	UC-03
Use Case Name:	Start communication
Description:	Generate secure communication platform for users, check if number of communication interfaces are within allowed limit, generate agreement between owner and caretaker.

Actors:	Owners, Owner/Caretaker

		Caretaker Action	Owner Action	System Action
Pre-conditions:		Owner should generate request through request management platform,		
Post-conditions:		Database entries will be generated of agreements which will trigger virtual money transfer from admin		
Frequency of Use:		Depends on actors		
Flow of Events:		**Caretaker Action**	**Owner Action**	**System Action**
	2	Accept Request		
	3			Request to delete extra chat boxes
	4	Delete extra chat boxes	Start chat box	
	5			Request to delete extra chat boxes
	6		Delete extra chat boxes	
	7	Open chat box	Open chat box	
	8	Send message	Send message	
	9	Accept agreement	Accept agreement	
	10			Agreement complete
Exceptions:		None		
Developer Notes:		Actor owner can perform functionality of owner, but caretaker can not perform all functions of owner.		

2) Activity Diagram

Activity diagram describes control flow of the system. Activity diagram captures dynamic behaviour of system and represents current or future state of system.
In activity diagram of communication functionality of system, vertical swimlanes are assigned to each actor involved and system. Communication activity starts when system generates notifications according to request generated and ends when agreement is established and database is updated with request dates.
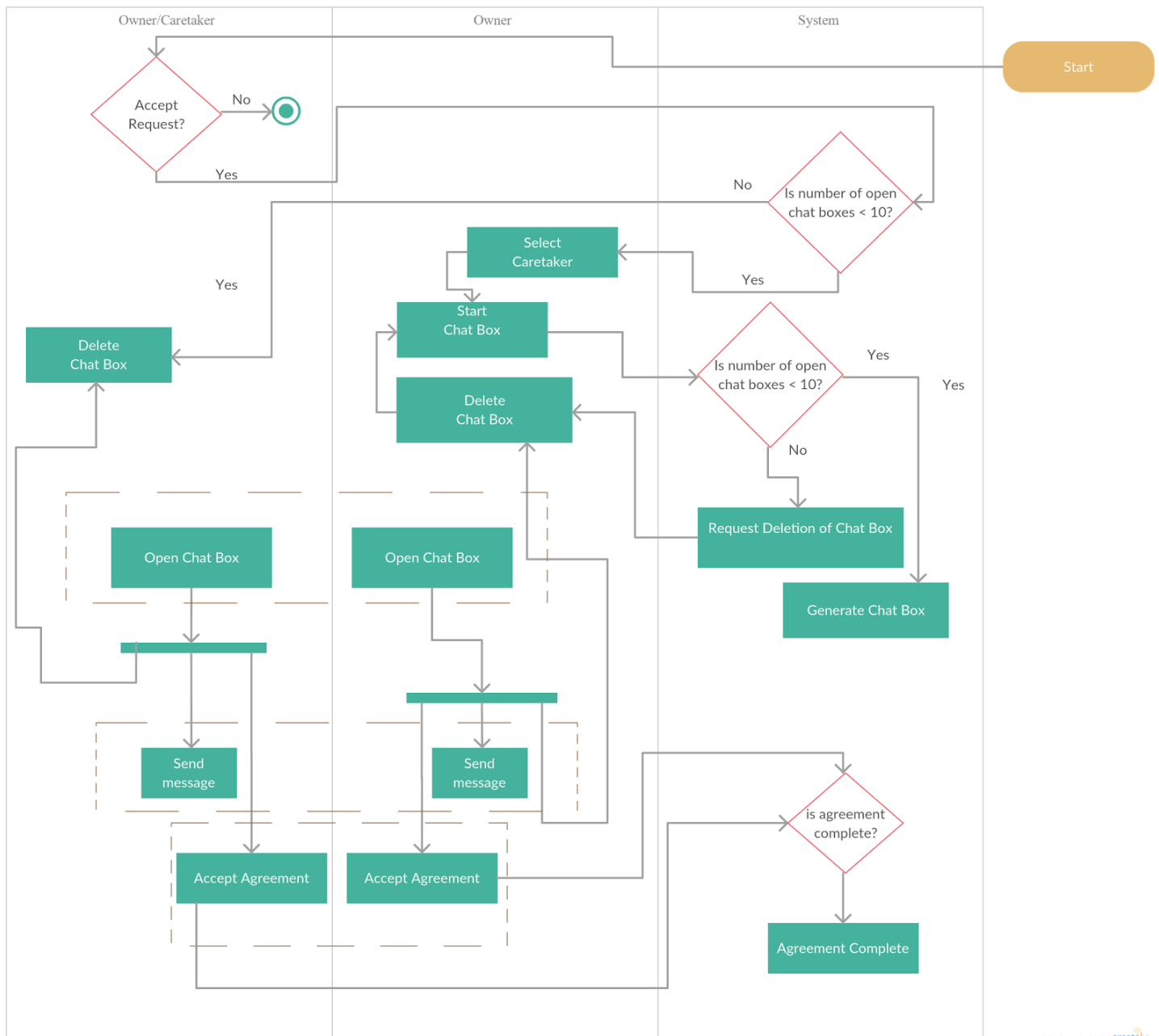
Diagram label : Activity diagram - start communication
Requirement ID : UR -014 , UR - 016, UR-017, UR - 023, UR - 024, UR - 025, UR-029.
Use Case ID: 03
Use Case Name : start communication
Full Name of team member : Ankita Narendra Manjrekar

Start communication use case focuses on establishing communication between owner and caretaker. Caretakers receive email of generated request from manage request use case. Caretakers can choose to accept request or ignore it. Owner will get list of caretakers who chose the request and chose caretaker and start communication. System makes sure that owner or caretaker don't have more than ten chat boxes open. Actors can delete their chat boxes. They can send messages and finally decide to accept agreement. When agreement is accepted by both members, system marks request dates for virtual money transfer.

3) Sequence diagram

Sequence diagram represents sequence of messages passed in a system for a given use case. Sequence diagrams help to visualize flow of messages passed between classes to perform functionality of a use case.

In sequence diagram for communication, vertical axis represents flow of time. Actors owner and owner 1/caretaker 1 interact to each other by using methods of class Owner and Caretaker/Owner.

Diagram label : Sequence diagram - start communication
Requirement ID : UR -014 , UR - 016, UR-017, UR - 023, UR - 024, UR - 025, UR-029.
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