

BIE-SI1 DesignClassModel

Design Class Model

Version 1.0 • Proposed



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Nikita

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1. Design Class Model

1.1 Client Class Model

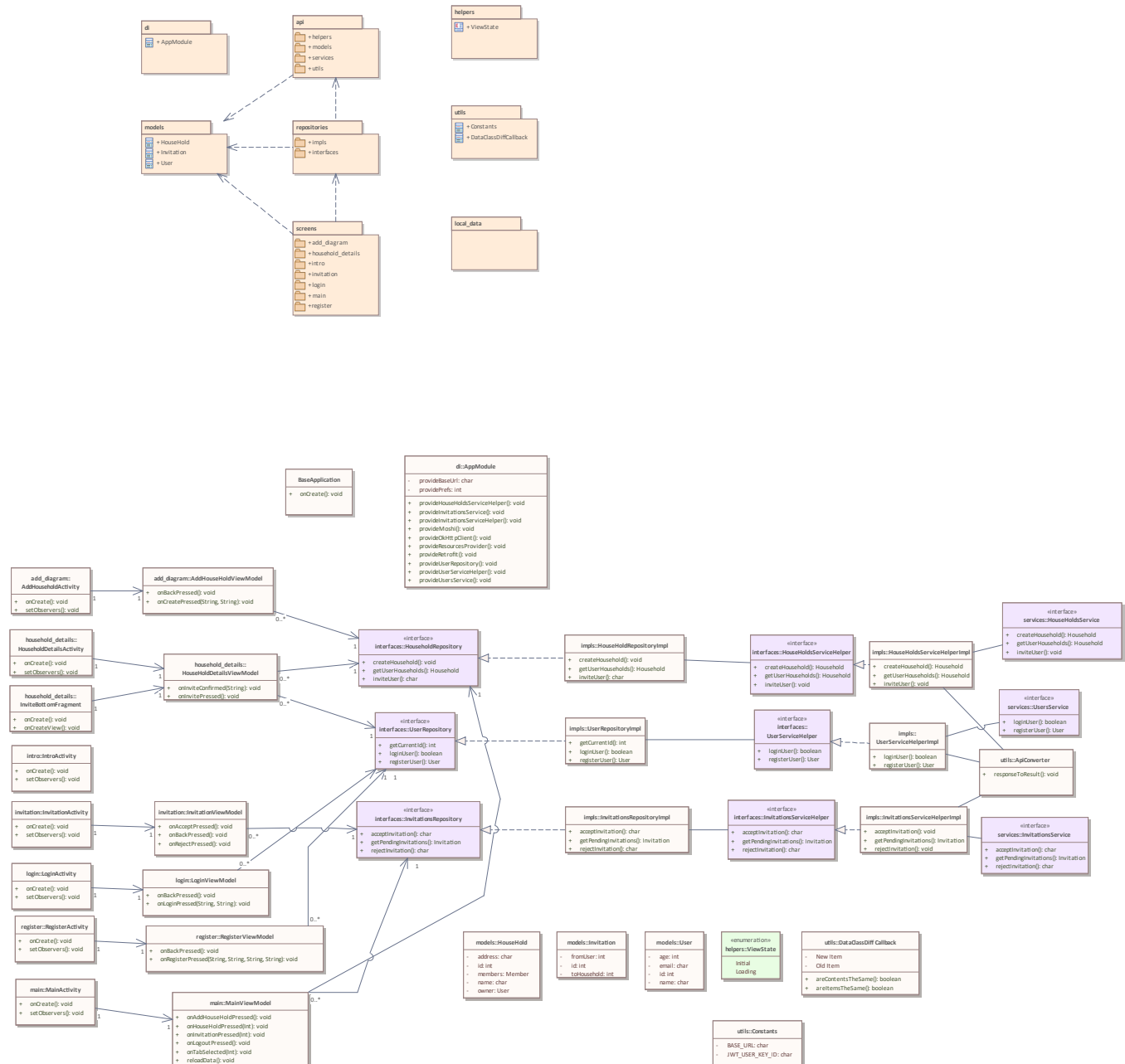


Figure 1 - Client Class Model

1.1.1 BaseApplication

Starting point for a client application to run

Method name	Return type	Description
onCreate	void	

1.1.2 api

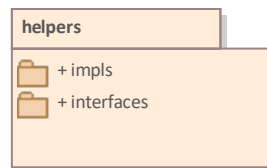


Figure 2 - api

1.1.2.1 helpers

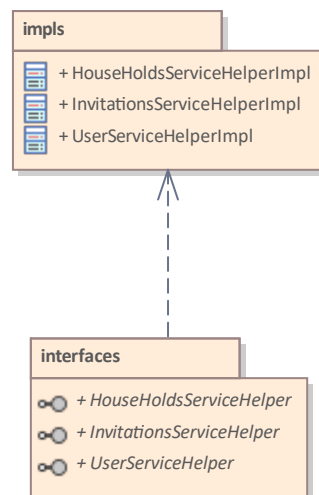


Figure 3 - helpers

1.1.2.1.1 impls

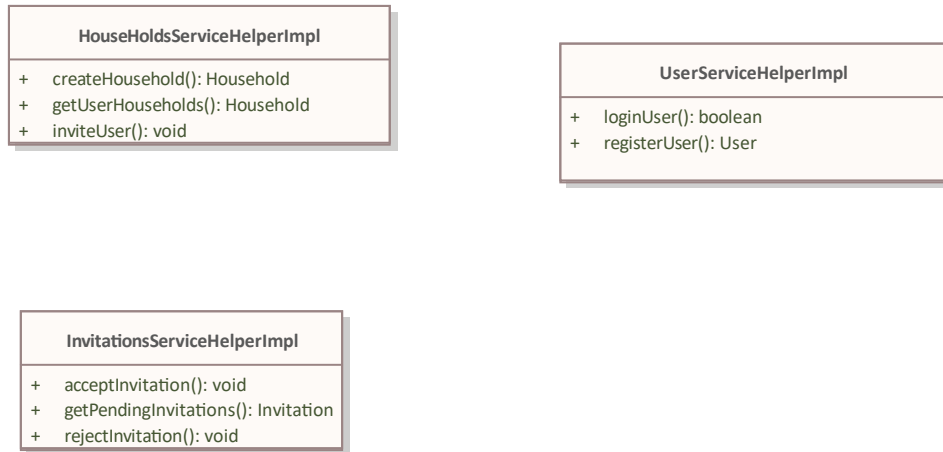


Figure 4 - impls

1.1.2.1.2 *interfaces*

1.1.2.2 **models**



Figure 5 - models

1.1.2.2.1 *requests*

1.1.2.3 **services**

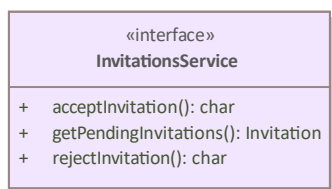
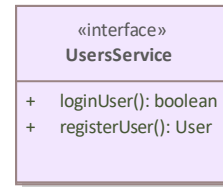


Figure 6 - services

1.1.2.4 utils

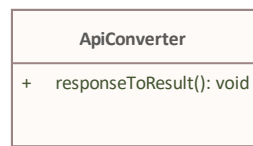


Figure 7 - utils

1.1.3 di

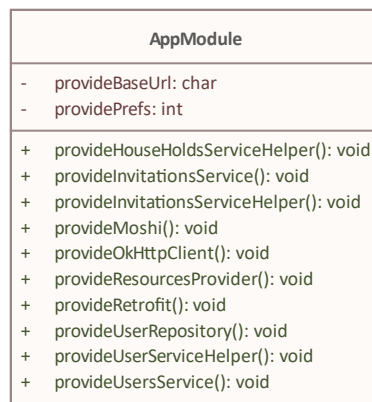


Figure 8 - di

1.1.4 helpers

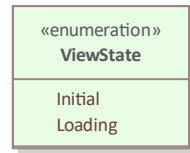


Figure 9 - helpers

1.1.5 local_data

1.1.6 models

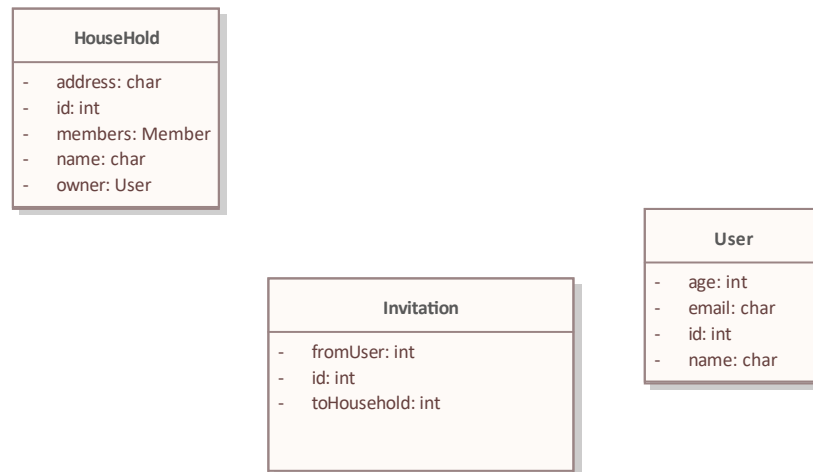


Figure 10 - models

1.1.7 repositories

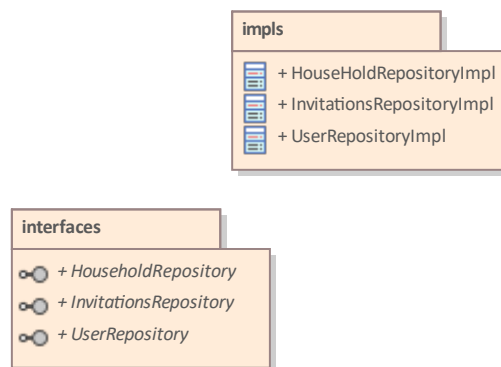


Figure 11 - repositories

1.1.7.1 impls

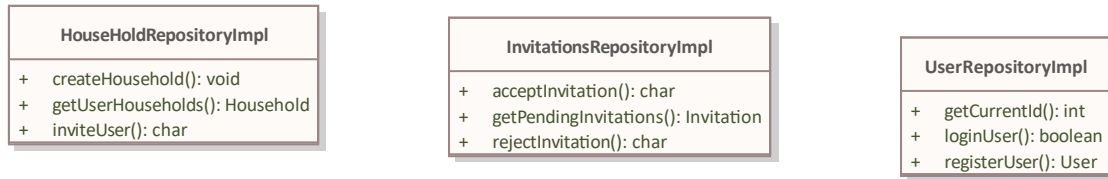


Figure 12 - impls

1.1.7.2 interfaces

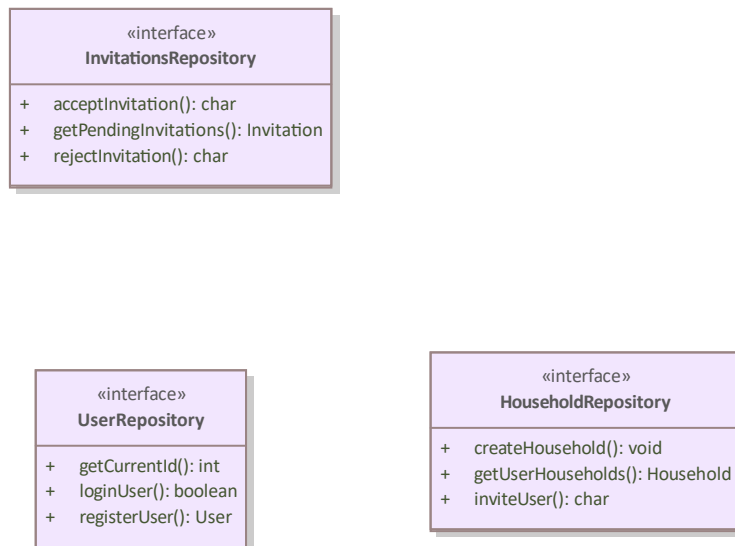


Figure 13 - interfaces

1.1.8 screens



Figure 14 - screens

1.1.8.1 add_diagram

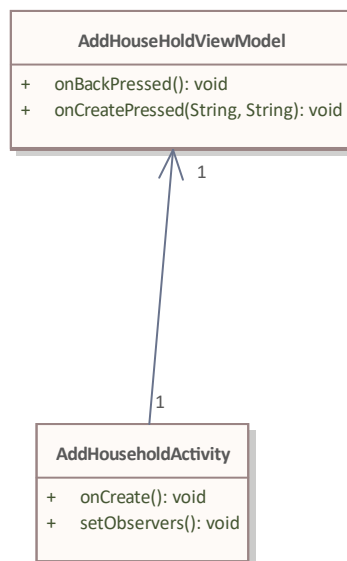


Figure 15 - add_diagram

1.1.8.2 household_details

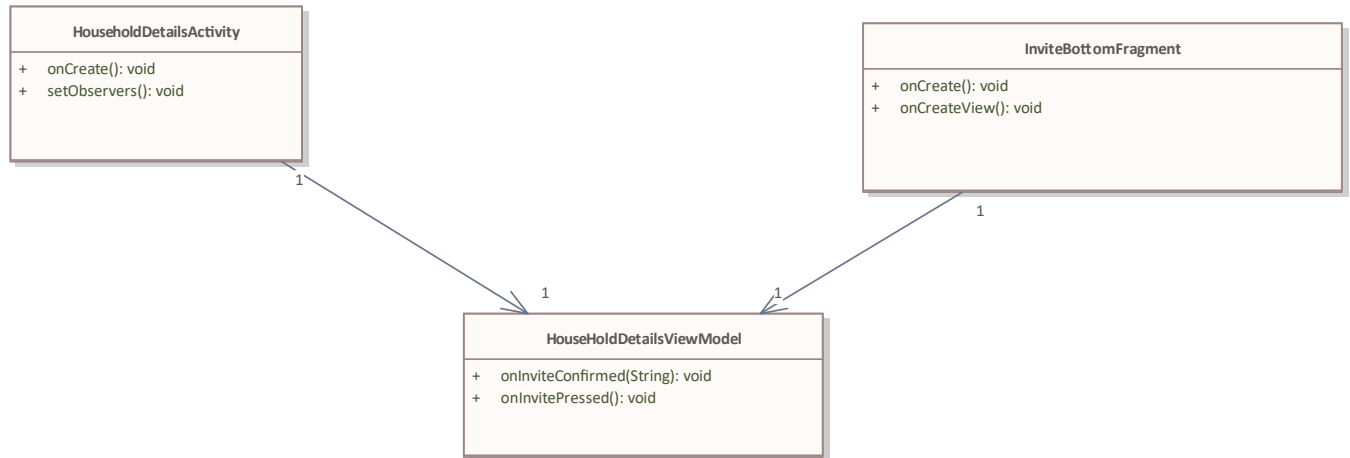


Figure 16 - household_details

1.1.8.3 intro

Figure 17 - intro

1.1.8.4 invitation

Figure 18 - invitation

1.1.8.5 login

Figure 19 - login

1.1.8.6 main

Figure 20 - main

1.1.8.7 register

Figure 21 - register

1.1.9 utils

Figure 22 - utils

1.2 Server Design Class Model

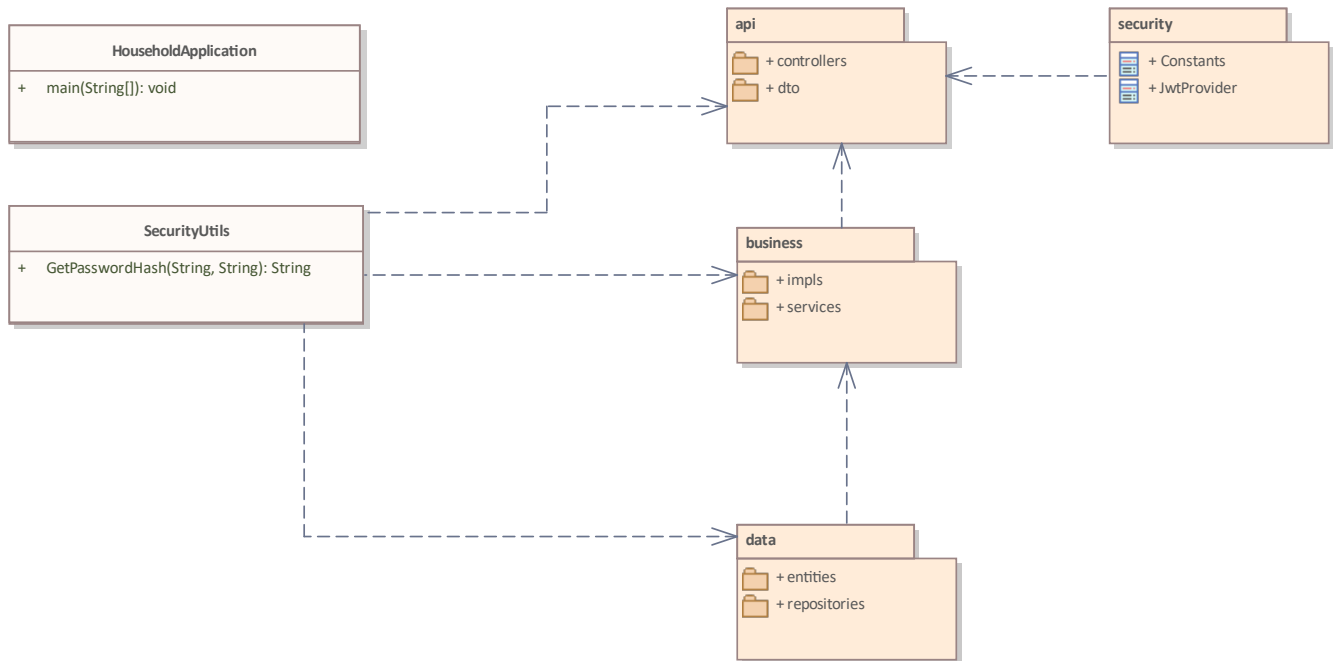


Figure 23 - Server Design Class Model

1.2.1 HouseholdApplication

Class which runs the actual Household Application

Method name	Return type	Description
main	void	Parameters: args: String[] -

1.2.2 api

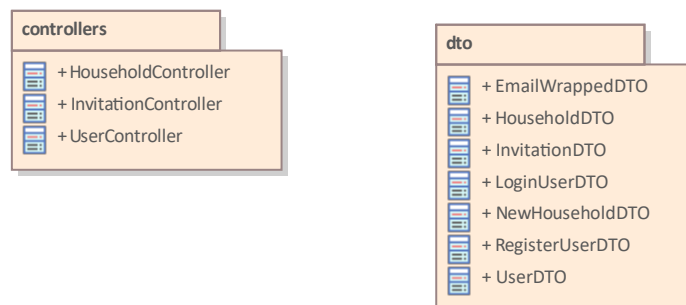


Figure 24 - api

1.2.2.1 controllers



Figure 25 - controllers

1.2.2.1.1 *HouseholdController*

Class with methods for inviting and creating households

Method name	Return type	Description
create	ResponseEntity<String> >	Parameters: household: NewHouseholdDTO - Parameters: header: String -
getUserHouseholds	ResponseEntity<List<HouseholdDTO>>	Parameters: header: String -
invite	ResponseEntity<String> >	Parameters: userEmail: EmailWrapperDTO - Parameters: householdId: int - Parameters: header: String -

1.2.2.1.2 *InvitationController*

Class that handled accepting and rejecting invitations to users outside the household

Method name	Return type	Description
accept	ResponseEntity<String> >	
getUserInvitations	ResponseEntity<List<InvitationDTO>>	Parameters: header: String -
reject	ResponseEntity<String> >	

1.2.2.1.3 UserController

Class that manages login and register functionality for users

Method name	Return type	Description
login	ResponseEntity<String>	Parameters: user: LoginUserDTO -
register	ResponseEntity<String>	Parameters: user: RegisterUserDTO -

1.2.2.2 dto

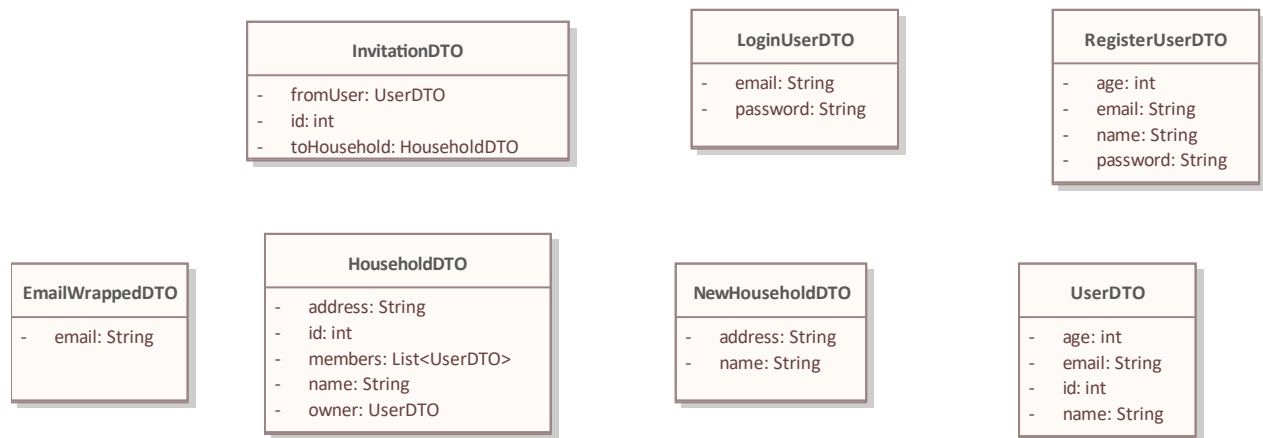


Figure 26 - dto

1.2.2.2.1 EmailWrappedDTO

Data Transfer Object for Email Wrapper

Attribute name	Data type	Description
email	String	

1.2.2.2.2 HouseholdDTO

Data Transfer Object for Household

Attribute name	Data type	Description
address	String	
id	int	
members	List<UserDTO>	
name	String	
owner	UserDTO	

1.2.2.2.3 InvitationDTO

Data Transfer Object for Invitations

Attribute name	Data type	Description
fromUser	UserDTO	
id	int	
toHousehold	HouseholdDTO	

1.2.2.2.4 *LoginUserDTO*

Data Transfer Object for User Logins

Attribute name	Data type	Description
email	String	
password	String	

1.2.2.2.5 *NewHouseholdDTO*

Data Transfer Object for New Households

Attribute name	Data type	Description
address	String	
name	String	

1.2.2.2.6 *RegisterUserDTO*

Data Transfer Object for User Registrations

Attribute name	Data type	Description
age	int	
email	String	
name	String	
password	String	

1.2.2.2.7 *UserDTO*

Data Transfer Object for Users

Attribute name	Data type	Description
age	int	
email	String	
id	int	
name	String	

1.2.3 business

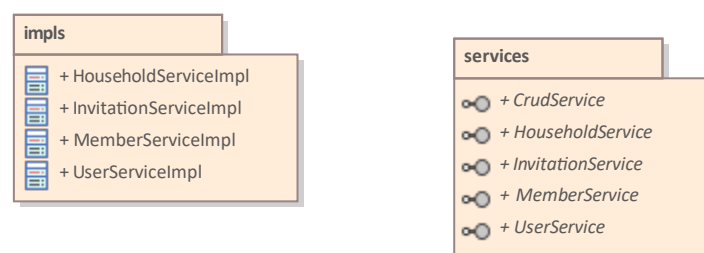


Figure 27 - business

1.2.3.1 impls

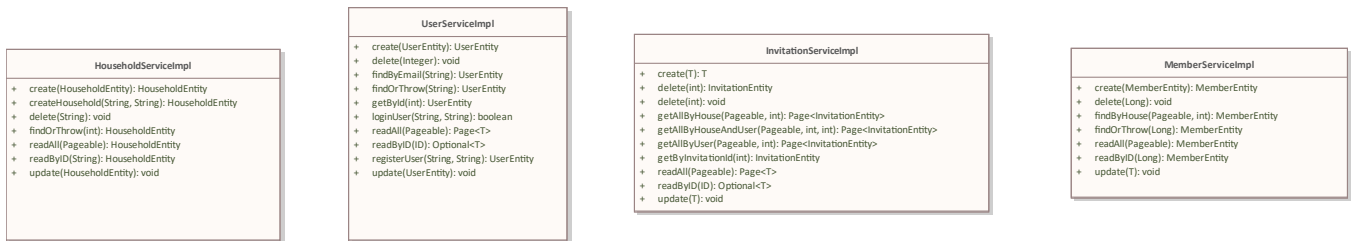


Figure 28 - impls

1.2.3.1.1 HouseholdServiceImpl

Class implementing the HouseholdService interface

Method name	Return type	Description
create	HouseholdEntity	Parameters: entity: HouseholdEntity -
createHousehold	HouseholdEntity	Parameters: address: String - Parameters: name: String -
delete	void	Parameters: id: String -
findOrThrow	HouseholdEntity	Parameters: householdId: int -
readAll	HouseholdEntity	Parameters: pageable: Pageable -
readById	HouseholdEntity	Parameters: id: String -
update	void	Parameters: newEntity: HouseholdEntity -

1.2.3.1.2 InvitationServiceImpl

Class implementing the InvitationService interface

Method name	Return type	Description
-------------	-------------	-------------

Method name	Return type	Description
create	T	Parameters: entity: T -
delete	void	Parameters: id: int -
delete	InvitationEntity	Parameters: invitationId: int -
getAllByHouse	Page<InvitationEntity>	Parameters: page: Pageable - Parameters: householdId: int -
getAllByHouseAndUser	Page<InvitationEntity>	Parameters: page: Pageable - Parameters: householdId: int - Parameters: userId: int -
getAllByUser	Page<InvitationEntity>	Parameters: page: Pageable - Parameters: userId: int -
getByInvitationId	InvitationEntity	Parameters: invitationId: int -
readAll	Page<T>	Parameters: pageable: Pageable -
readById	Optional<T>	Parameters: id: ID -
update	void	Parameters: newEntity: T -

1.2.3.1.3 *MemberServiceImpl*

Class implementing the MemberService interface

Method name	Return type	Description
create	MemberEntity	

Method name	Return type	Description
		Parameters: entity: MemberEntity -
delete	void	Parameters: id: Long -
findByHouse	MemberEntity	Parameters: page: Pageable - Parameters: householdId: int -
findOrThrow	MemberEntity	Parameters: id: Long -
readAll	MemberEntity	Parameters: pageable: Pageable -
readById	MemberEntity	Parameters: id: Long -
update	void	Parameters: newEntity: T -

1.2.3.1.4 *UserServiceImpl*

Class implementing the UserService interface

Method name	Return type	Description
create	UserEntity	Parameters: entity: UserEntity -
delete	void	Parameters: id: Integer -
findByEmail	UserEntity	Parameters: email: String -
findOrThrow	UserEntity	Parameters: email: String -
getById	UserEntity	Parameters: userId: int -

Method name	Return type	Description
loginUser	boolean	Parameters: username: String - Parameters: password: String -
readAll	Page<T>	Parameters: pageable: Pageable -
readById	Optional<T>	Parameters: id: ID -
registerUser	UserEntity	Parameters: fullName: String - Parameters: email: String -
update	void	Parameters: newEntity: UserEntity -

1.2.3.2 services

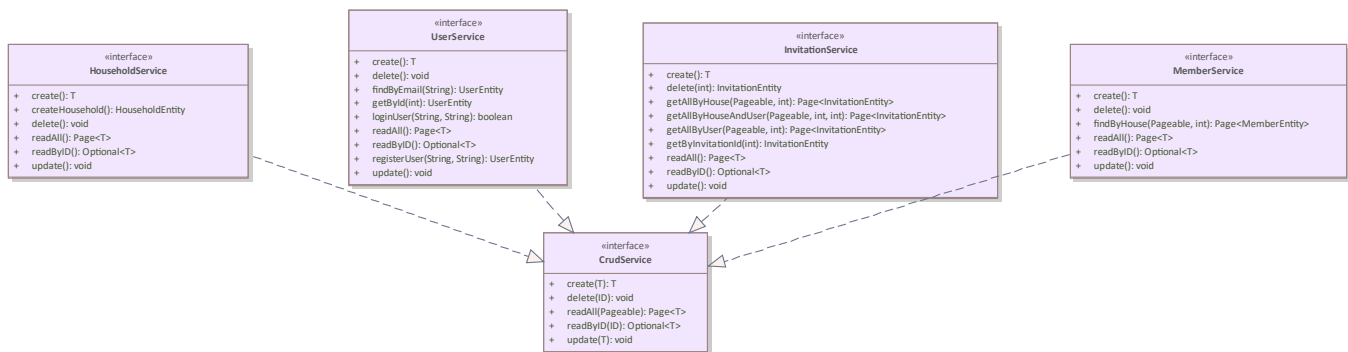


Figure 29 - services

1.2.3.2.1 CrudService

Interface for CRUD methods

Method name	Return type	Description
create	T	Parameters: entity: T -
delete	void	Parameters: id: ID -

Method name	Return type	Description
readAll	Page<T>	Parameters: pageable: Pageable -
readById	Optional<T>	Parameters: id: ID -
update	void	Parameters: newEntity: T -

1.2.3.2.2 *HouseholdService*

Interface realizing CRUD functionality for HouseholdService

Method name	Return type	Description
create	T	
createHousehold	HouseholdEntity	
delete	void	
readAll	Page<T>	
readById	Optional<T>	
update	void	

1.2.3.2.3 *InvitationService*

Interface realizing CRUD functionality for InvitationService

Method name	Return type	Description
create	T	
delete	InvitationEntity	Parameters: invitationId: int -
getAllByHouse	Page<InvitationEntity>	Parameters: page: Pageable - Parameters: householdId: int -
getAllByHouseAndUser	Page<InvitationEntity>	Parameters: page: Pageable - Parameters: householdId: int - Parameters:

Method name	Return type	Description
		userId: int -
getAllByUser	Page<InvitationEntity>	Parameters: page: Pageable - Parameters: userId: int -
getByInvitationId	InvitationEntity	Parameters: invitationId: int -
readAll	Page<T>	
readById	Optional<T>	
update	void	

1.2.3.2.4 *MemberService*

Interface realizing CRUD functionality for MemberService

Method name	Return type	Description
create	T	
delete	void	
findByHouse	Page<MemberEntity>	Parameters: page: Pageable - Parameters: householdId: int -
readAll	Page<T>	
readById	Optional<T>	
update	void	

1.2.3.2.5 *UserService*

Interface realizing CRUD functionality for UserService

Method name	Return type	Description
create	T	
delete	void	
findByEmail	UserEntity	Parameters: email: String -
getById	UserEntity	

Method name	Return type	Description
		Parameters: userId: int -
loginUser	boolean	Parameters: username: String - Parameters: password: String -
readAll	Page<T>	
readByID	Optional<T>	
registerUser	UserEntity	Parameters: fullName: String - Parameters: email: String -
update	void	

1.2.4 data

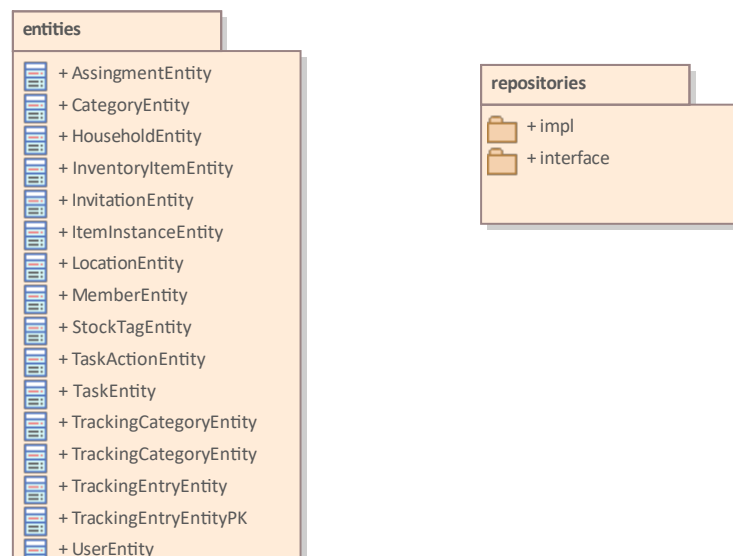


Figure 30 - data

1.2.4.1 entities

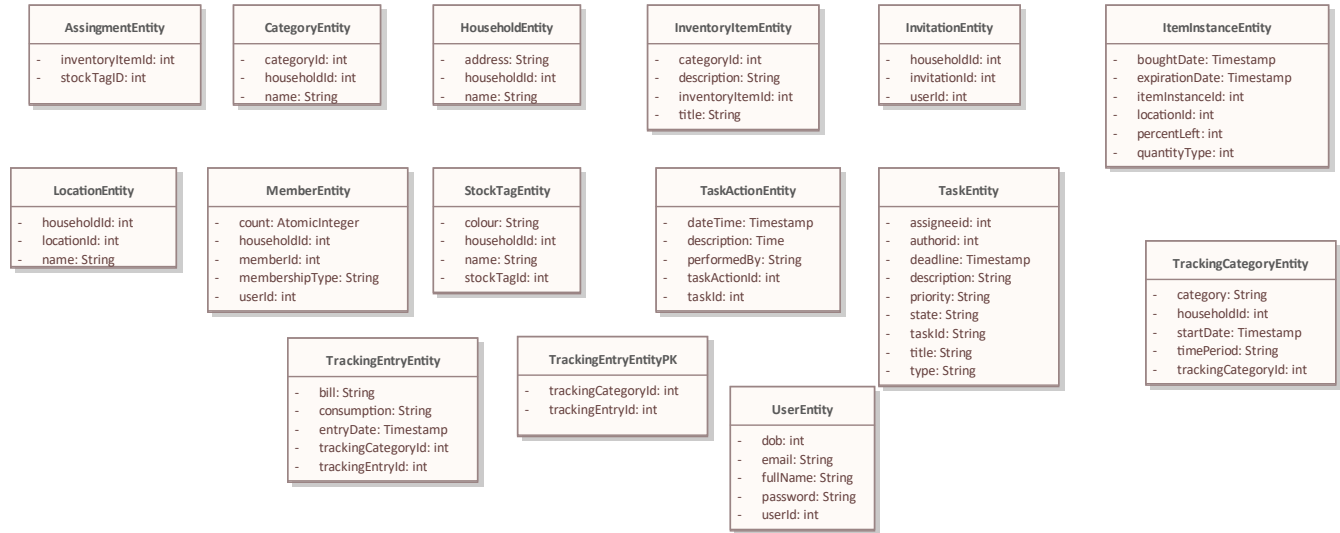


Figure 31 - entities

1.2.4.1.1 *AssingmentEntity*

Class representing the database entity of Assignment

Attribute name	Data type	Description
inventoryItemId	int	
stockTagID	int	

1.2.4.1.2 *CategoryEntity*

Class representing the database entity of Category

Attribute name	Data type	Description
categoryId	int	
householdId	int	
name	String	

1.2.4.1.3 *HouseholdEntity*

Class representing the database entity of Household

Attribute name	Data type	Description
address	String	
householdId	int	
name	String	

1.2.4.1.4 *InventoryItemEntity*

Class representing the database entity of Inventory Item

Attribute name	Data type	Description
categoryId	int	
description	String	
inventoryItemId	int	
title	String	

1.2.4.1.5 *InvitationEntity*

Class representing the database entity of Invitation

Attribute name	Data type	Description
householdId	int	
invitationId	int	
userId	int	

1.2.4.1.6 *ItemInstanceEntity*

Class representing the database entity of Item Instance

Attribute name	Data type	Description
boughtDate	Timestamp	
expirationDate	Timestamp	
itemInstanceId	int	
locationId	int	
percentLeft	int	
quantityType	int	

1.2.4.1.7 *LocationEntity*

Class representing the database entity of Location

Attribute name	Data type	Description
householdId	int	
locationId	int	
name	String	

1.2.4.1.8 *MemberEntity*

Class representing the database entity of Member

Attribute name	Data type	Description
count	AtomicInteger	
householdId	int	
memberId	int	
membershipType	String	
userId	int	

1.2.4.1.9 *StockTagEntity*

Class representing the database entity of Stock Tag

Attribute name	Data type	Description
colour	String	
householdId	int	
name	String	
stockTagId	int	

1.2.4.1.10 *TaskActionEntity*

Class representing the database entity of Task Action

Attribute name	Data type	Description
dateTime	Timestamp	

Attribute name	Data type	Description
description	Time	
performedBy	String	
taskActionId	int	
taskId	int	

1.2.4.1.11 TaskEntity

Class representing the database entity of Task

Attribute name	Data type	Description
assigneeid	int	
authorid	int	
deadline	Timestamp	
description	String	
priority	String	
state	String	
taskId	String	
title	String	
type	String	

1.2.4.1.12 TrackingEntryEntity

Class representing the database entity of Tracking Entry

Attribute name	Data type	Description
bill	String	
consumption	String	
entryDate	Timestamp	
trackingCategoryId	int	
trackingEntryId	int	

1.2.4.1.13 TrackingEntryEntityPK

Class representing the database entity of Tracking Entry PK

Attribute name	Data type	Description
trackingCategoryId	int	
trackingEntryId	int	

1.2.4.1.14 UserEntity

Class representing the database entity of User

Attribute name	Data type	Description
dob	int	
email	String	
fullName	String	
password	String	
userId	int	

1.2.4.2 repositories

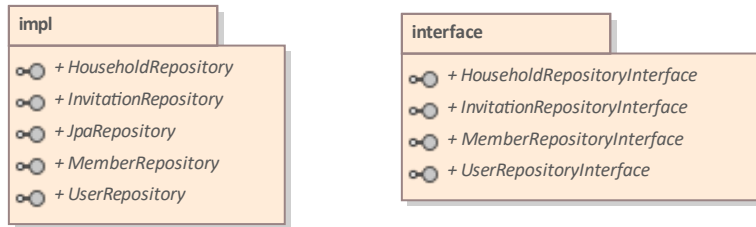


Figure 32 - repositories

1.2.4.2.1 *impl*

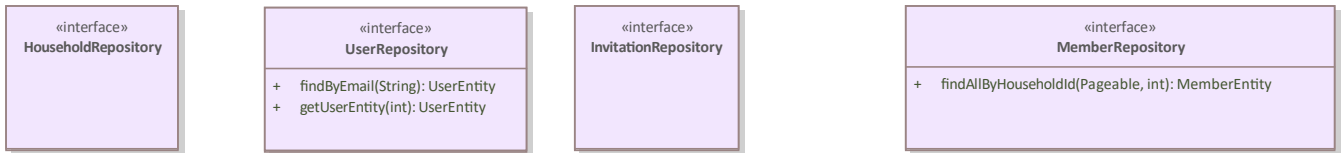


Figure 33 - impl

1.2.4.2.2 *interface*



Figure 34 - interface

1.2.4.2.2.1 **HouseholdRepositoryInterface**

Interface realizing Repository methods for Household

1.2.4.2.2.2 **InvitationRepositoryInterface**

Interface realizing Repository methods for Invitation

1.2.4.2.2.3 **MemberRepositoryInterface**

Interface realizing Repository methods for Member

1.2.4.2.2.4 **UserRepositoryInterface**

Interface realizing Repository methods for User

1.2.5 security

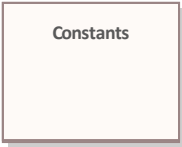
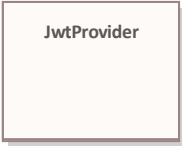


Figure 35 - security

