

CRC Model

Optimistic Newts

Enterprise Business
Rules

User

Responsibilities

Collaborators

- id
- username
- password
- location
- interests
- rating
- numRatings
- loginStatus
- friends
- conversations
- getId()
- getUsername()
- setUsername()
- getPassword()
- setPassword()

- getLocation()
- getInterests()
- setLocation()
- addInterest()
- removeInterest()
- getRating()
- addRating()
- login()
- logout()
- addFriend()
- removeFriend()
- getFriends()
- addConversation()
- removeConversation()
- getConversations()

- Conversation

Enterprise Business
Rules

Conversation

Responsibilities

- id
- title
- topic
- location
- locationRadius
- minRating
- maxSize
- closingTime
- isOpen #public
- messages
- users
- getId()
- getTitle()
- setTitle()
- getTopic()
- setTopic()

- getLocation()
- setLocation()
- getLocationRadius()
- setLocationRadius()
- getMinRating()
- setMinRating()
- getMaxSize()
- setMaxSize()
- getClosingTime()
- setClosingTime()
- getMessages()
- addMessage()
- removeMessage()
- getUsers()
- addUser()
- removeUser()

Collaborators

- User
- Message

Enterprise Business
Rules

Message

Responsibilities

- body
- author
- writtenAt # set to time of constructor call
- lastUpdatedAt
- getBody()
- setBody()
- getAuthor()
- getWrittenAt()
- getLastUpdatedAt()
- setLastUpdatedAt() #set to time of method call. Make this private and call inside of setBody()

Collaborators

- User

Enterprise Business
Rules

ConversationQueue

implements Queue<Conversation>

Responsibilities

For [Queue interface](#)

- add()
- element()
- offer()
- peek()
- poll()
- remove()
- + some Collection interface methods

ConversationQueue specific:

- conversations (heap)
- location
- locationRadius
- Interests
- getLocation()
- getLocationRadius()
- getInterests()
- toKeyedConversation()

Collaborators

- Conversation
- KeyedConversation

Application
Business Rules

UserManager

implements InputBoundary

Responsibilities

- user
- UserInteractor(User)
- Create User
- Login User
- Delete User

- request(RequestModel)

Collaborators

- User
- RequestModel (data structure)

Application
Business Rules

ConversationManager

implements InputBoundary

Responsibilities

- conversation
- ConversationInteractor(Conversation)
- Create Conversation
- Change Conversation Status
- Add Messages to conversation

- request()

Collaborators

- Conversation
- RequestModel

Application
Business Rules

MessageManager

implements InputBoundary

Responsibilities

- message
- MessageInteractor(Message)
- Creates messages
- Updates messages

- request()

Collaborators

- Message
- RequestModel

Application
Business Rules

ConversationQueueManager

implements InputBoundary

Responsibilities

- conversationQueue
- ConversationQueueInteractor(C
onversationQueue)
- Creates a new
ConversationQueue
- Dequeues Conversations from
the ConversationQueue

- request()

Collaborators

- ConversationQueue
- RequestModel

| Interface Adapters | | | Controller | | |
|--|--|--|--|--|--|
| Responsibilities | | | Collaborators | | |
| <ul style="list-style-type: none">• inOut• Validate input• Call appropriate interactor | | | <ul style="list-style-type: none">• Application.RequestModel• Application.InputBoundary• Adapters.InOut (interface)• Many Interactors | | |

| | | | | | |
|---|--|------------------|---------------|--|--|
| Interface Adapters | | Presenter | | implements Application.OutputBoundary | |
| Responsibilities | | | Collaborators | | |
| <ul style="list-style-type: none">• inOut• response()• outputResponse() | | | | <ul style="list-style-type: none">• Adapters.InOut (interface)• Application.ResponseModel | |

Frameworks & Drivers

CliDriver

implements `Adapters.StringInOut`

Responsibilities

- reader
- `getInput()`
- `sendOutput()`

Collaborators

Frameworks & Drivers

CliMain

Responsibilities

- Main method

Collaborators

adapters.Controller