Interactive / short / 1

IS 1	query	Interactive / short / 1
IS 2	title	Profile of a person
IS 3 IS 4 IS 5 IS 6 IS 7	pattern	
	desc.	Given a start Person, retrieve their first name, last name, birthday, IP address, browser, and city of residence.
	params	1 personId ID

	result				
	1	person.firstName	String	R	
	2	person.lastName	String	R	
	3	person.birthday	Date	R	
	4	person.locationIP	String	R	
	5	person.browserUsed	String	R	
	6	city.id	ID	R	
	7	person.gender	String	R	
	8	person.creationDate	DateTime	R	

In the pattern:

person: Person
id = $personId
firstName
lastName
birthday
locationIP
browserUsed
gender
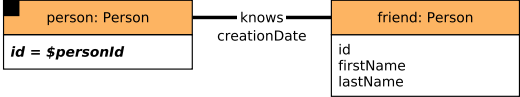creationDate

— isLocatedIn → city: City
id

IS 1
IS 2
IS 3
IS 4
IS 5
IS 6
IS 7
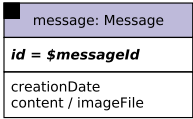
Interactive / short / 2

query	Interactive / short / 2
title	Recent messages of a person
pattern	
desc.	Given a start Person, retrieve the last 10 Messages created by that user. For each Message, return that Message, the original Post in its conversation (post), and the author of that Post (originalPoster). If any of the Messages is a Post, then the original Post (post) will be the same Message, i.e. that Message will appear twice in that result.

params

1	personId	ID	

result

1	message.id	ID	R	
2	message.content or message.imageFile (for photos)	Text	R	
3	message.creationDate	DateTime	R	
4	post.id	ID	R	
5	originalPoster.id	ID	R	
6	originalPoster.firstName	String	R	
7	originalPoster.lastName	String	R	

sort

1	message.creationDate	↓	
2	message.id	↓	
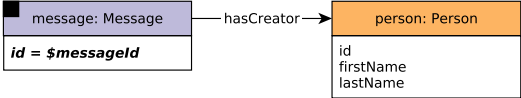
Interactive / short / 3

query	Interactive / short / 3
title	Friends of a person
pattern	
desc.	Given a start Person, retrieve all of their friends, and the date at which they became friends.

params	1	personId	ID	

result	1	friend.id	ID	R	
	2	friend.firstName	String	R	
	3	friend.lastName	String	R	
	4	knows.creationDate	DateTime	R	

sort	1	knows.creationDate	↓	
	2	friend.id	↑	
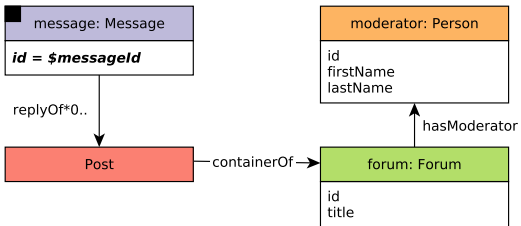
Interactive / short / 4

query	Interactive / short / 4
title	Content of a message
pattern	
desc.	Given a Message, retrieve its content and creation date.

params	1	messageId	ID	

result	1	message.creationDate	DateTime	R	messageCreationDate
	2	message.content or message.imageFile (for photos)	Text	R	messageContent

Interactive / short / 5

IS 1		
IS 2	query	Interactive / short / 5
IS 3	title	Creator of a message
IS 4	pattern	
IS 5		
IS 6	desc.	Given a Message, retrieve its author.
IS 7	params	1 messageId ID

result	1	person.id	ID	R
	2	person.firstName	String	R
	3	person.lastName	String	R

Interactive / short / 6

IS 1		
IS 2	query	Interactive / short / 6
IS 3	title	Forum of a message
IS 4	pattern	
IS 5		
IS 6		
IS 7		

desc.	Given a Message, retrieve the Forum that contains it and the Person that moderates that Forum. Since Comments are not directly contained in Forums, for Comments, return the Forum containing the original Post in the thread which the Comment is replying to.
params	1 messageId ID

result	1	forum.id	ID	R
	2	forum.title	Long String	R
	3	moderator.id	ID	R
	4	moderator.firstName	String	R
	5	moderator.lastName	String	R

Interactive / short / 7

query	Interactive / short / 7
title	Replies of a message
pattern	

pattern diagram text:

message: Message — id = $messageId — hasCreator → messageAuthor: Person

«opt» knows

comment: Comment (id, content, creationDate) — hasCreator → replyAuthor: Person (id, firstName, lastName)

replyOf

desc.	Given a Message, retrieve the (1-hop) Comments that reply to it. In addition, return a boolean flag knows indicating if the author of the reply (replyAuthor) knows the author of the original message (messageAuthor). If author is same as original author, return False for knows flag.

params

1	messageId	ID	

result

1	comment.id	ID	R	
2	comment.content	Text	R	
3	comment.creationDate	DateTime	R	
4	replyAuthor.id	ID	R	
5	replyAuthor.firstName	String	R	
6	replyAuthor.lastName	String	R	
7	knows	Boolean	C	True if the knows edge exists between the replyAuthor and the messageAuthor nodes, False otherwise (including the case when the two nodes are the same)

sort

1	comment.creationDate	↓	
2	replyAuthor.id	↑	