

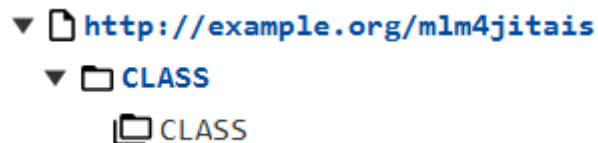
Summary

Completed:	100.0 %
Not completed:	0.0 %
Not attempted:	0.0 %

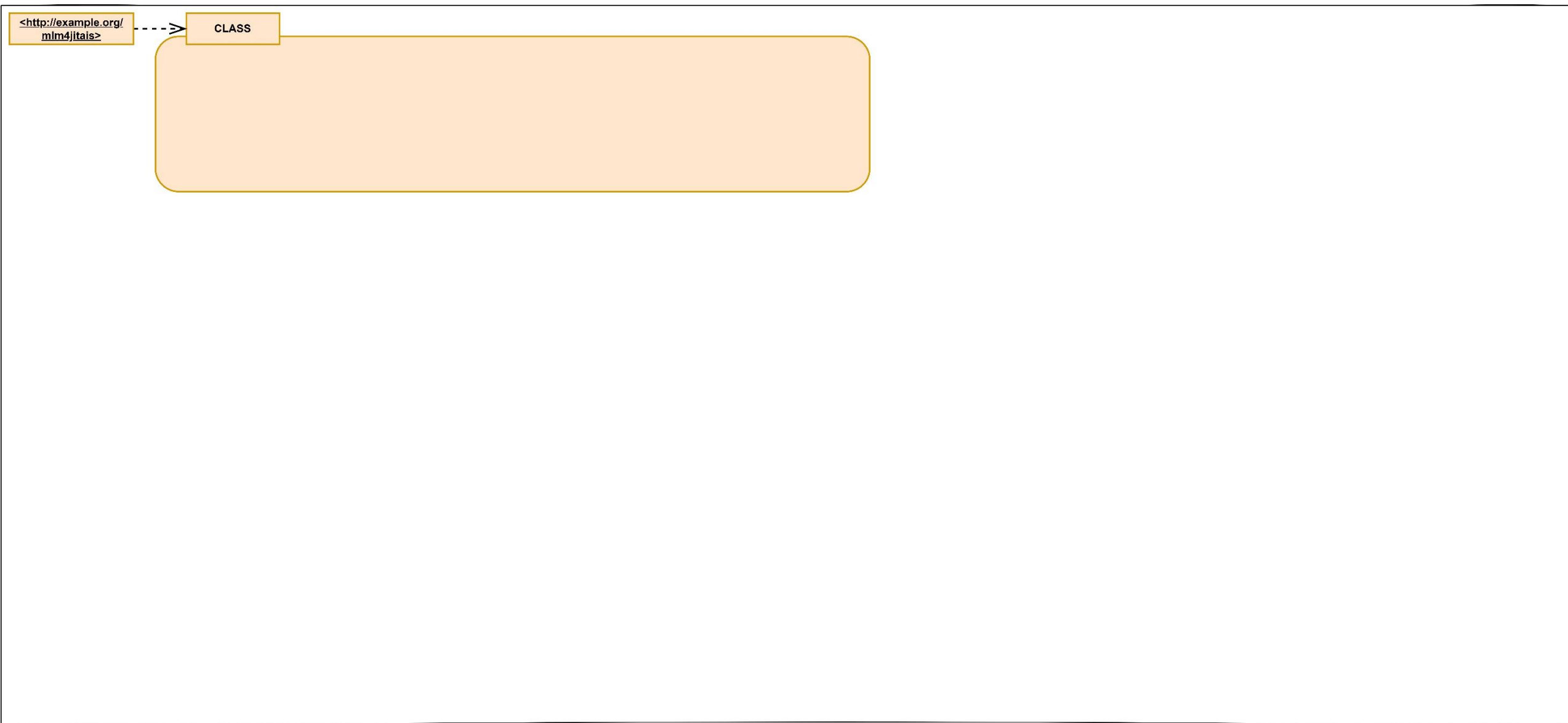
Task (1)

In this task, you create a domain model for developing and evaluating activity and dietary JITAIs in multiple studies.

- Create a new domain model with the URI
<*<http://example.org/mlm4jitaais>*>
- Expected outcome



```
▼ [icon] http://example.org/mlm4jitaais  
  ▼ [icon] CLASS  
    [icon] CLASS
```



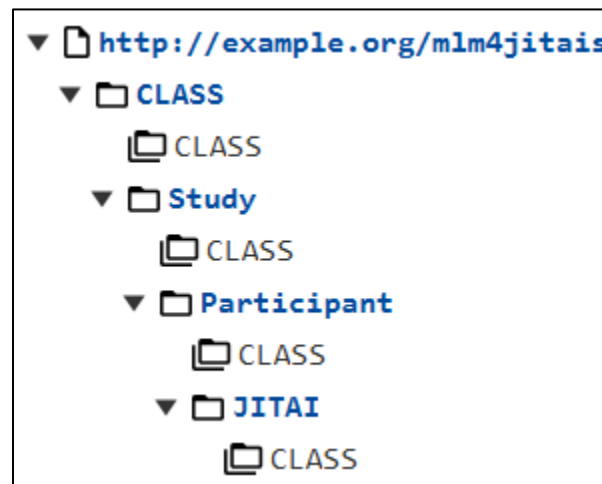
Task (2)

Summary

Completed:	90.9 %
Not completed:	9.1 %
Not attempted:	0.0 %

- Add local to that domain model a composition hierarchy with class *JITAI* as component of class *Participant* as component of class *Study*
 - Note: Individuals of classes *Study* and *Participant* are domain objects
 - Note: Individuals of class *JITAI* are occurrences
 - Note: Leafs of class *JITAI* are abstract classes

- Expected outcome





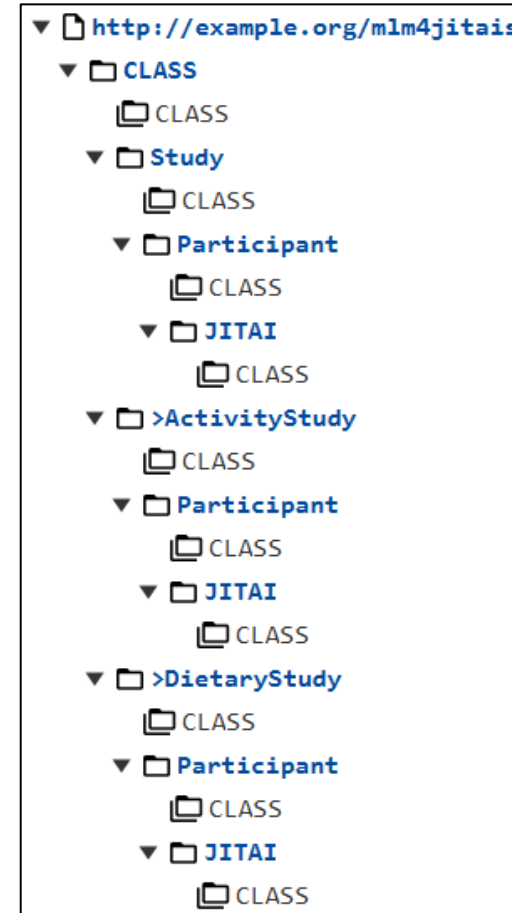
Task (3)

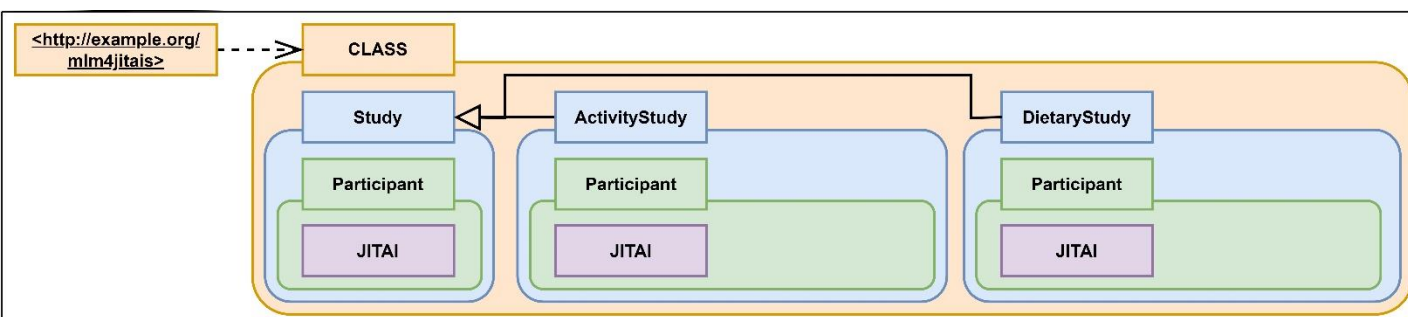
- Add classes *ActivityStudy* and *DietaryStudy* as specializations of class *Study*

Summary

Completed:	100.0 %
Not completed:	0.0 %
Not attempted:	0.0 %

Expected outcome





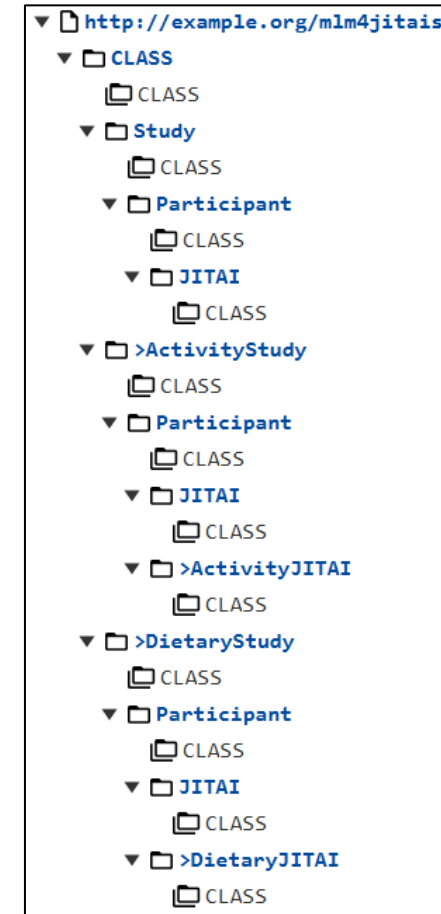
Task (4)

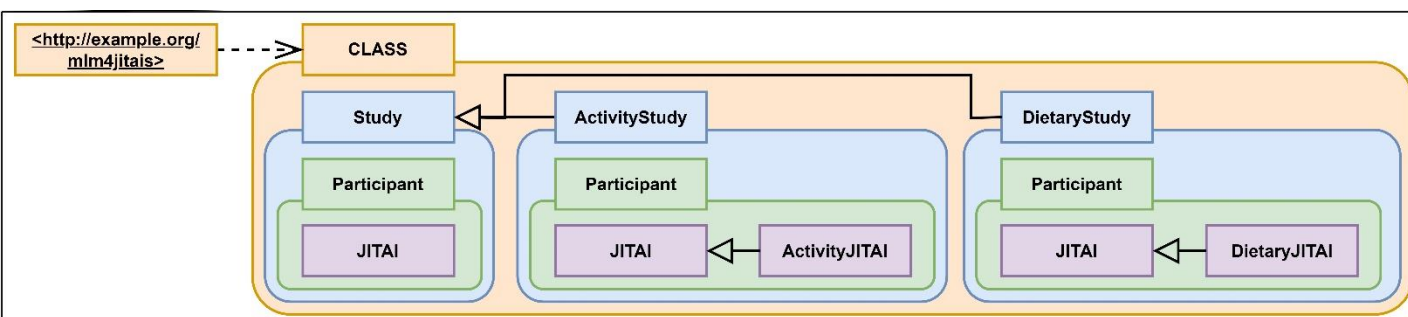
Summary

Completed:	72.7 %
Not completed:	27.3 %
Not attempted:	0.0 %

- Add class *ActivityJITAI* as specialization of class *JITAI* in context of class *ActivityStudy*
 - Note: Leafs of class *ActivityJITAI* are concrete classes
- Add class *DietaryJITAI* as specialization of class *JITAI* in context of class *DietaryStudy*
 - Note: Leafs of class *DietaryJITAI* are concrete classes

Expected outcome



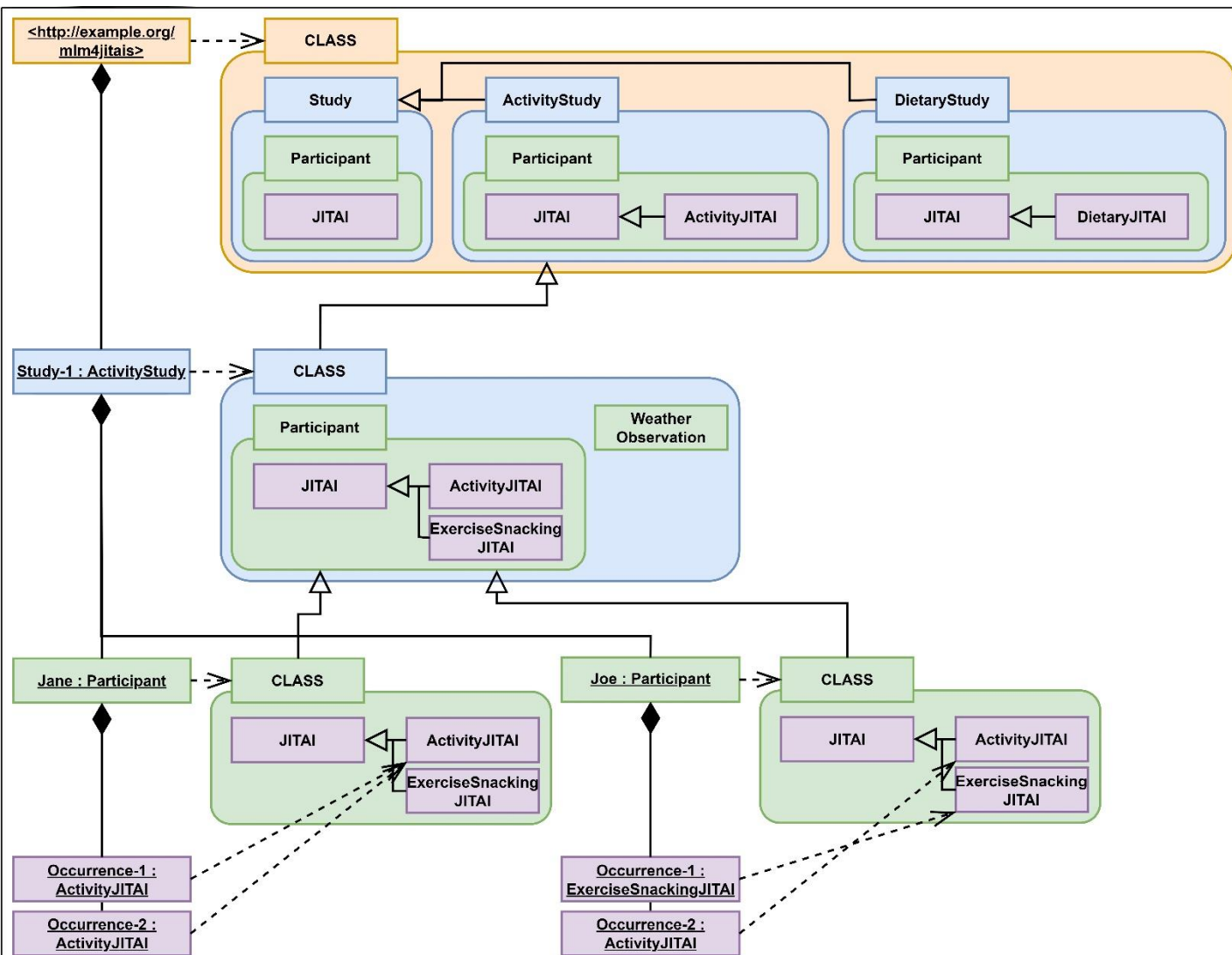


Task (5)

Summary

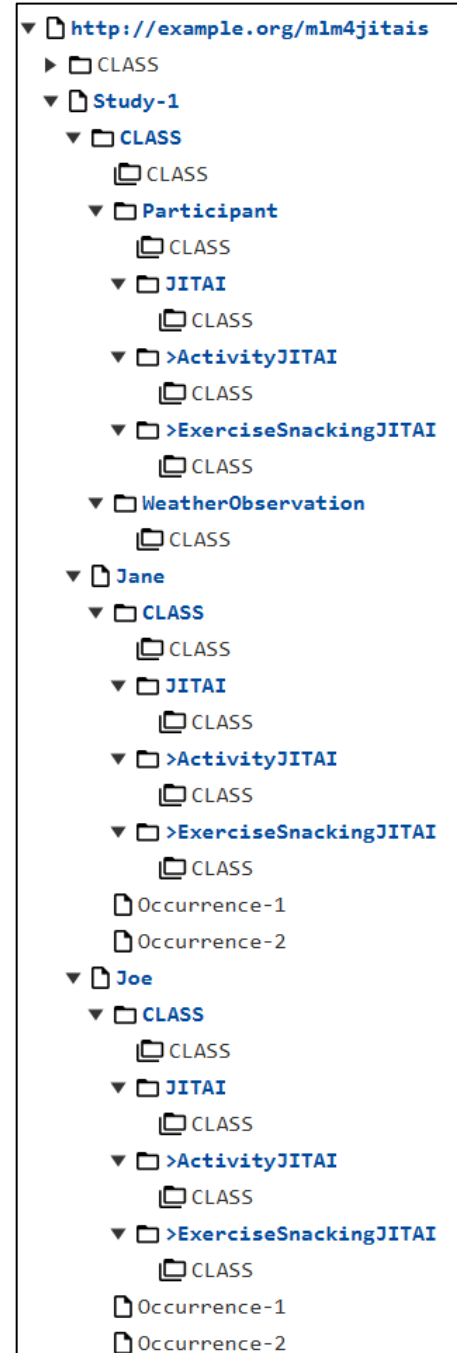
Completed:	54.5 %
Not completed:	45.5 %
Not attempted:	0.0 %

- Add *Study-1* as an instance of class *ActivityStudy*
 - Add class *WeatherObservation* for *Study-1*
 - Note: Individuals of class *WeatherObservation* are occurrences
 - Note: Leafs of class *WeatherObservation* are concrete classes
 - Add class *ExerciseSnackingJITAI* as specialization of class *JITAI* for *Study-1*
 - Note: Leafs of class *ExerciseSnackingJITAI* are concrete classes
 - Add *Jane* and *Joe* as instances of class *Participant* of *Study-1*
 - For *Jane* add the following occurrences:
 - *Occurrence-1* as an instance of class *ActivityJITAI* with a *suggestedDuration* of 6
 - *Occurrence-2* as an instance of class *ActivityJITAI* with a *suggestedDuration* of 23
 - For *Joe* add the following occurrences:
 - *Occurrence-1* as an instance of class *ExerciseSnackingJITAI* with a *suggestedDuration* of 2
 - *Occurrence-2* as an instance of class *ActivityJITAI* with a *suggestedDuration* of 33



Task (5)

Expected outcome

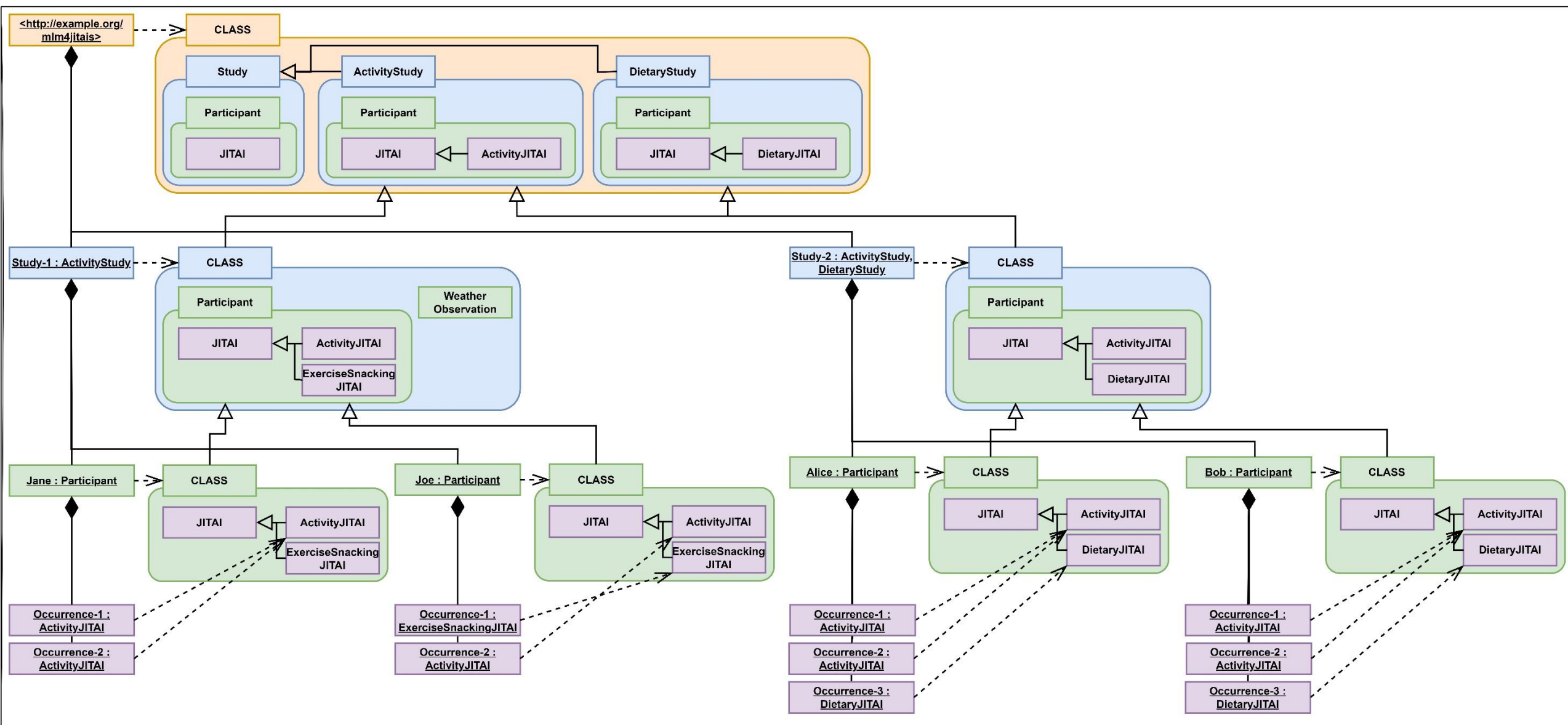


Summary

Completed:	63.6 %
Not completed:	36.4 %
Not attempted:	0.0 %

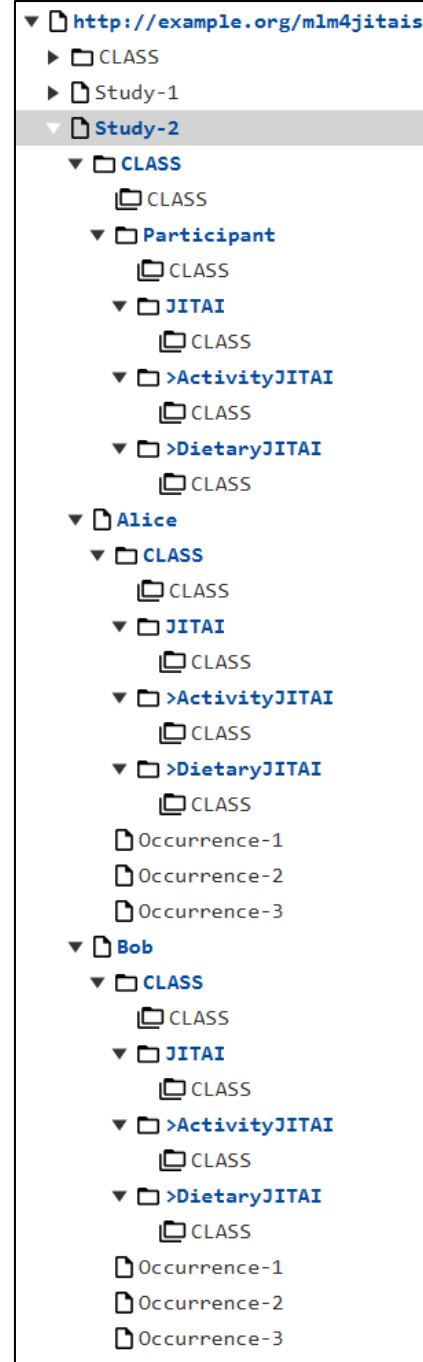
Task (6)

- Add *Study-2* as an instance of classes *ActivityStudy* and *DietaryStudy*
 - Add *Alice* and *Bob* as instances of class *Participant* of *Study-2*
 - For *Alice* add the following occurrences:
 - *Occurrence-1* as an instance of class *ActivityJITAI* with a *suggestedDuration* of 6
 - *Occurrence-2* as an instance of class *ActivityJITAI* with a *suggestedDuration* of 23
 - *Occurrence-3* as an instance of class *DietaryJITAI* with *message* "You are doing great!"
 - For *Bob* add the following occurrences:
 - *Occurrence-1* as an instance of class *ActivityJITAI* with a *suggestedDuration* of 2
 - *Occurrence-2* as an instance of class *ActivityJITAI* with a *suggestedDuration* of 33
 - *Occurrence-3* as an instance of class *DietaryJITAI* with *message* "You are doing bad!"



Task (6)

Expected outcome



Summary

Completed:	36.4 %
Not completed:	45.5 %
Not attempted:	18.2 %

Task (7)

- Define a SPARQL Query that counts the numbers of interventions for each instance of meta class `<CLASS/ActivityStudy/Participant/ActivityJITAI/CLASS>`.
- Expected result

clabject	numberOfInterventions
<Study-2/Alice/CLASS/ActivityJITAI>	2
<Study-2/CLASS/Participant/ActivityJITAI>	4
<Study-1/CLASS/Participant/ActivityJITAI>	3
<Study-1/Jane/CLASS/ActivityJITAI>	2
<CLASS/ActivityStudy/Participant/ActivityJITAI>	7
<Study-2/Bob/CLASS/ActivityJITAI>	2
<Study-1/Joe/CLASS/ActivityJITAI>	1

Task (8)

Summary

Completed:	18.2 %
Not completed:	45.5 %
Not attempted:	36.4 %

- Define a SPARQL Query that provides the average *suggestedDuration* for each instance of meta class <CLASS/Study/Participant/JITAI/CLASS>.
- Expected result

clabject	avgDuration
<Study-1/CLASS/Participant/ExerciseSnackingJITAI>	2.0
<Study-2/Alice/CLASS/DietaryJITAI>	
<Study-1/Jane/CLASS/ActivityJITAI>	14.5
<Study-1/Jane/CLASS/ExerciseSnackingJITAI>	
<CLASS/DietaryStudy/Participant/JITAI>	16.0
<CLASS/ActivityStudy/Participant/ActivityJITAI>	18.0
<Study-2/Bob/CLASS/ActivityJITAI>	17.5
<Study-1/Joe/CLASS/ExerciseSnackingJITAI>	2.0
<Study-1/Jane/CLASS/JITAI>	14.5
<CLASS/DietaryStudy/Participant/DietaryJITAI>	
<Study-2/Alice/CLASS/JITAI>	14.5
<CLASS/ActivityStudy/Participant/JITAI>	16.0
<Study-2/Alice/CLASS/ActivityJITAI>	14.5
<Study-2/CLASS/Participant/JITAI>	16.0
<CLASS/Study/Participant/JITAI>	16.0
<Study-2/CLASS/Participant/ActivityJITAI>	16.0
<Study-2/CLASS/Participant/DietaryJITAI>	
<Study-1/CLASS/Participant/ActivityJITAI>	20.666666666666666666666666666667
<Study-2/Bob/CLASS/JITAI>	17.5
<Study-1/CLASS/Participant/JITAI>	16.0
<Study-2/Bob/CLASS/DietaryJITAI>	
<Study-1/Joe/CLASS/JITAI>	17.5
<Study-1/Joe/CLASS/ActivityJITAI>	33.0

Task (9)

Summary

Completed:	18.2 %
Not completed:	27.3 %
Not attempted:	54.5 %

- Define a SPARQL Query that selects all *ActivityJITAI* classes of individual participants using the navigation via n: properties only.
- Expected result

```
-----  
| clabject |  
=====
```

<Study-1/Jane/CLASS/ActivityJITAI>	
<Study-1/Joe/CLASS/ActivityJITAI>	
<Study-2/Bob/CLASS/ActivityJITAI>	
<Study-2/Alice/CLASS/ActivityJITAI>	

```
-----
```

Task (10)

Summary

Completed:	9.1 %
Not completed:	36.4 %
Not attempted:	54.5 %

- Define a SPARQL Query that selects the total number of JITAI occurrences for each study.
- Expected result

clobject	numberOfInterventions
<Study-2/CLASS/Participant/JITAI>	6
<Study-1/CLASS/Participant/JITAI>	4