Introduction

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This document addresses the task listed in A.D.3

Problem

Include in your screenshot:

- An object diagram

The object diagram must contain:

- At least two objects contained in rectangles with the title of the class at the top (capitalised). This should also have the specific object title (e.g. for a class titled "Member", the object diagram would be titled "Alex: Member")
- At least one attribute for each object with values indicated (e.g. “name: Alex”, “age: 32”)
- Lines or "relationships" to indicate the structure of the objects and how they interact with each other. Types of relationships, such as many-to-many, do not need to be indicated at this level

Submit a comment explaining your understanding of:

- The object diagram you’ve submitted and its use
- Design decisions made when producing the diagram

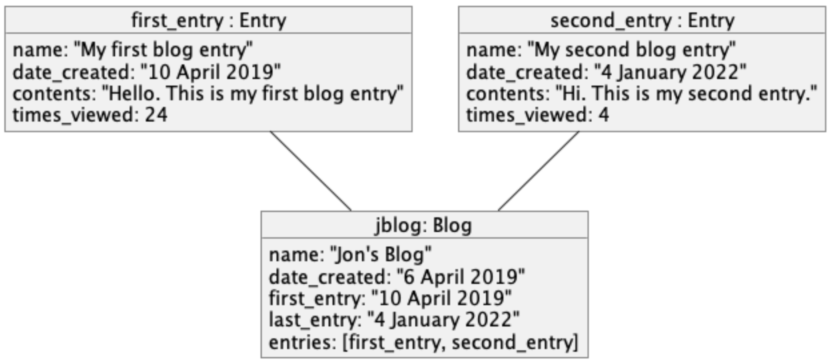
Remember:

- Attach examples as image files or screenshots
- Use original work that is your own (i.e. no examples handed out as course materials (unless PDA specific), copied from the internet, or submitted by another student)
- Reattach all files on any resubmission
- Do NOT reuse examples from another submission

Solution

The figure below shows three objects, `first_entry`, `second_entry` and `jblog` of two classes, `Entry` and `Blog`. The objects `first_entry` and `second_entry` are instances of the class `Entry`, and the object `jblog` is an instance of class Blog.

The object `jblog` contains within it the objects `first_entry` and `second_entry` in its field `entries`. The links between these objects are shown with lines. The position of objects does not matter.


first_entry : Entry
name: "My first blog entry"
date_created: "10 April 2019"
contents: "Hello. This is my first blog entry"
times_viewed: 24
second_entry : Entry
name: "My second blog entry"
date_created: "4 January 2022"
contents: "Hi. This is my second entry."
times_viewed: 4
jblog: Blog
name: "Jon's Blog"
date_created: "6 April 2019"
first_entry: "10 April 2019"
last_entry: "4 January 2022"
entries: [first_entry, second_entry]

The two blog entries are created as instances of the same `Entry` class because they can be expected to contain the same types of attribute/field, even though their contents can be expected to be different. Although only one instance of the `Blog` class exists, `jblog`, other objects of this class could also exist, and will be expected to have the same kinds of attribute/field. An important design decision is that instances of the `Blog` class accept instances of the `Entry` class.

Both the `Entry` and `Blog` class may be expected to contain relevant class-specific methods, although these are not shown here. For example, and `Entry` class object might be expected to have `.create()`, `.edit()` and `.delete()` methods, and the `Blog` class may be expected to have `.add_entry()`, `.delete_entry()` and `.count_total_views()` methods, the last of which might iterate through the `times_viewed` attribute of each entry in the `entries` list attribute.

Appendix

The following shows the PlantUML code used to generate the figure above

@startuml three_objects_of_two_classes object "jblog: Blog" as jblog object "first_entry : Entry" as first_entry object "second_entry : Entry" as second_entry object first_entry { name: "My first blog entry" date_created: "10 April 2019" contents: "Hello. This is my first blog entry" times_viewed: 24 } object second_entry { name: "My second blog entry" date_created: "4 January 2022" contents: "Hi. This is my second entry." times_viewed: 4 } object jblog { name: "Jon's Blog" date_created: "6 April 2019" first_entry: "10 April 2019" last_entry: "4 January 2022" entries: [first_entry, second_entry] } first_entry -- jblog second_entry -- jblog @enduml