Quiz 3: Domain-Driven Design Results for Yufu Liao

Score for this quiz: 17.33 out of 100 *
* Some questions not yet graded
Submitted Sep 26 at 8:23pm
This attempt took 59 minutes.
Move To... This element is a more accessible alternative to drag & drop reordering. Press Enter or Space to move this question.
Question 1
Not yet graded / 20 pts
Here is a class definition for students:

```
class Student [
  private long cwid;
  private String name;
  private String email;
  private Date dob;
  private Address address;
  private Faculty advisor;
  private List<Course> courses;
]
```

Annotate this with JPA annotations that specify:

1. The student information is in a database table called STUDENT_INFO.
2. The cwid field is a primary key, automatically generated by the database using the default strategy.
3. There is a one-to-one relationship between a student and their address, represented in the database by a field called ADDRESS_FK in the student record.
4. There is a one-to-many relationship between a student and their courses.
5. There is a many-to-one relationship between students and their faculty advisors, represented in the database by a field called ADVISOR_FK in the student record.

Make any reasonable assumptions you need to about the names of fields in other classes that map relationships, or the names of columns in database tables that represent foreign key relationships.
Your Answer:

```
@Entity
@Table(name="STUDENT_INFO")
public class Student implements Serializable {
    @id @GeneratedValue
    private long cwid;

    private String name;
    private String email;
    private Date dob;

    @OneToOne
    @JoinColumn(name = "ADDRESS_FK")

    private Address address;

    @ManyToOne
    @JoinColumn(name = "ADVISOR_FK")
    private Faculty advisor;
```

```
    @OneToMany(mappedTo="student")
    private List<Enrrollment> enrollments;
}
```

Question 2
13.33 / 20 pts
For each of the relationships between entities in the Student ORM question, identify the entity that "owns" the relationship. Identify the owning identity by using the class name of that entity:

1. Student-Address Student
2. Student-Advisor Student
3. Student-Course Student

Answer 1:
Correct! Student
Correct! 96839
Student
Answer 2:
Correct! Student
Correct! 68453
Student
Answer 3:
You Answered Student
Correct Answer 52890
Course

Question 3
Not yet graded / 20 pts
What is the purpose of each of the following two design patterns in ORM:

1. Persistence Data Object (PDO)
2. Data Access Object (DAO)

Your Answer:

1. Persistence Data Object (PDO) 1. Domain entity object to be persisted to the database

It helps applications save data to persistent storage. Persistent storage can be database, directory service, plain files, spreadsheet, cloud service...

1. Persistent data is static and does not change with time (not dynamic).
2. Persistent data stores core information. For example, an organization's financial data must be persistent.
3. Persistent data cannot be deleted by external processes or objects until the user deletes it, meaning it's stable.

2. Data Access Object (DAO) 2. Encapsulates logic for accessing dataabase repository

It provides an abstract interface to some type of database or other persistence mechanisms. By mapping application calls to the persistence layer, the DAO provides some specific data operations without exposing details of the database.

Question 4
0 / 20 pts
Give the names of the JPA EntityManager methods for each of the following tasks:

1. add an entity to the managed objects create
2. delete an entity from the database delete
3. flush updates on an entity to the database sotre
4. detach an entity from the managed objects delete
5. re-attach an entity to the managed objects reconstiute

Answer 1:
You Answered create
Correct Answer 82240
persist
Answer 2:
You Answered delete
Correct Answer 31348
remove
Answer 3:
You Answered sotre
Correct Answer 96284
flush
Answer 4:
You Answered delete
Correct Answer 38499
detach
Answer 5:
You Answered reconstiute
Correct Answer 7225
merge
Move To... This element is a more accessible alternative to drag & drop reordering. Press Enter or Space to move this question.
Question 5
4 / 20 pts
Match the domain-driven design pattern with the problem that it addresses.
You Answered 23179
How do I isolate what is important in the overall picture of my domain model?

Bounded Context.

Layered architecture.
You Answered 26143
How do I control accesses to my objects to ensure that invariants among related objects are preserved?

Anticorruption Layer.

Aggregate.
You Answered 54715
How do I create a complex object?

Aggregate.

Factory.
You Answered 26386
How do I save an entity object to disk and restore it from disk?

Customer-Supplier.

Repository.
Correct! 23009
How do I delimit the scope of a domain submodel?

Bounded Context.
You Answered 39312
How do I relate the various submodels in a shared understanding of the overall model?

Continuous Integration.

Context Map.
You Answered 93253
How do I coordinate the activities of two teams who are working on systems that are closely related?

Repository.

Shared Kernel.
Correct! 96139
How do I prevent external legacy software from polluting the domain model?

Anticorruption Layer.
You Answered 31260
How do I coordinate the activities of two teams who are working on systems that are closely related, they cannot share subsystems, but they are under the same management?

Shared Kernel.

Customer-Supplier.
You Answered 20854
How do I ensure that the code and the domain model are kept consistent with each other?

Layered architecture.

Continuous Integration.

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