

Aggregates

Tags	API Aggregates Data Modeling Design Patterns Domain-Driven Design Entities Factories JSON Object-Oriented Programming Software Design Value Objects
Date	@December 20, 2022
# Week #	7
# Day #	1

Worksheet



INSTRUCTIONS

1. Duplicate this document to your own Notion account.
2. Follow along during the lecture.
3. Fill in the blanks with definitions of terms we talked about in class.
Record the answers to Slido quizzes here, so you can go back and study later!
4. When you're done, share your Notion document with
kaitlin.cort@galvanize.com

Link to Notion worksheet:

<https://kaizenpath.notion.site/Aggregates-Factories-Design-Patterns-5ecd1c50113b4efa941d647d0c98a24b>

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REVIEW

1. Benefits & Drawbacks of Domain-Driven Design

+ BENEFITS

- 1.
- 2.

3.

4.

- DRAWBACKS

1.

2.

3.

SLIDO Quiz

Create a data object to store the lyrics to this song, so you can send it over HTTP:

“Doe — a deer, a female dear. Ray — a drop of golden sun. Me — a name I call myself. Far — a long long way to run. Sew — a needle pulling thread. La — a note to follow so. Tea — a drink with jam and bread.”

Bonus For Later: Transform your data string into a type of element that you can manipulate in Python. Then loop through the data to print each lyric, and get back to “Doe.”

2+3. Entities & Value Objects

Entities:

1.

2.

3.

Value Objects:

1.

2.

3.



Take a deep breath! You're doing great!!! 😊 ❤️

<https://giphy.com/gifs/funny-dog-bswGDO7Rh1ONO>

4. What are aggregates?

5. What is the aggregate root?

Resources On Design Patterns

Factory Method

Also known as: Virtual Constructor Factory Method is a creational design pattern that provides an interface for creating objects in a superclass, but allows subclasses to alter the type of objects that

💡 <https://refactoring.guru/design-patterns/factory-method>



Patterns.dev - Modern Web App Design Patterns

Improve how you architect webapps Patterns.dev is a free book on design patterns and component patterns for building powerful web apps with...

💡 <https://www.patterns.dev/>



Microservice Architecture and Design Patterns - DZone

Aggregator API Gateway Chained or Chain of Responsibility
Asynchronous Messaging Database or Shared Data Event Sourcing
Branch Command Query Responsibility Segregator Circuit Breaker

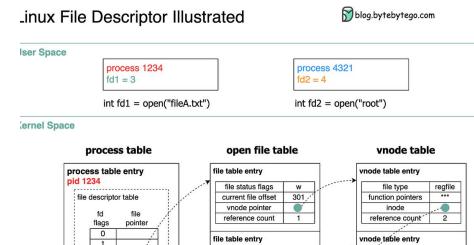
💡 <https://dzone.com/articles/design-patterns-for-microservices>



EP17: Design patterns cheat sheet. Also...

For this week's newsletter, we will cover: Design patterns cheat sheet 6 ways to turn code into beautiful architecture diagrams What is a File Descriptor? Scan to pay in 2 minutes Direct

🔗 <https://blog.bytebytogo.com/p/ep17-design-patterns-cheat-sheet>



YOUR TURN

This is the list of different kinds of taxes and fees that can occur for rooms:

- City sales tax calculated based on how much the room costs per night
- Local sales tax calculated based on how much the room costs per night
- State sales tax calculated based on how much the room costs per night
- Hospitality fee which is only applied on weekends and is based on the city
- Cleaning fee which may be applied for special circumstances

This is the list of the different services that can accrue on a guest's bill:

- Room service based on what is ordered to the room, plus the gratuity
- Valet service for the number of nights the guest's vehicle is parked in valet parking
- Wi-Fi service upgrade based on the number of days that it is upgraded
- Breakfast service based on the number of people from a room that have breakfast service



Submit a .png version of ExCalidraw below.

Feedback:

How are you feeling about the material in Module 2 right now? Gimme an emoji.

What are some concepts you feel comfortable with? *What's confusing right now?*

Share your Notion document with kaitlin.cort@galvanize.com