The best game you haven’t played yet

Benjamin Bies, Jakob Fassunge, Martin Schmidt, Jeremias Wolfs

Agenda

What’s going on?

- The genius of our Idea
- Architectural Decisions
- DevOps
- Live Demo
- Lessons Learned

Genius Idea

- Webengineering = boring

Genius Idea

- Webengineering = boring
- Game
  - Top Down Dungeon Crawler
  - Motivation

Enter the Gungeon

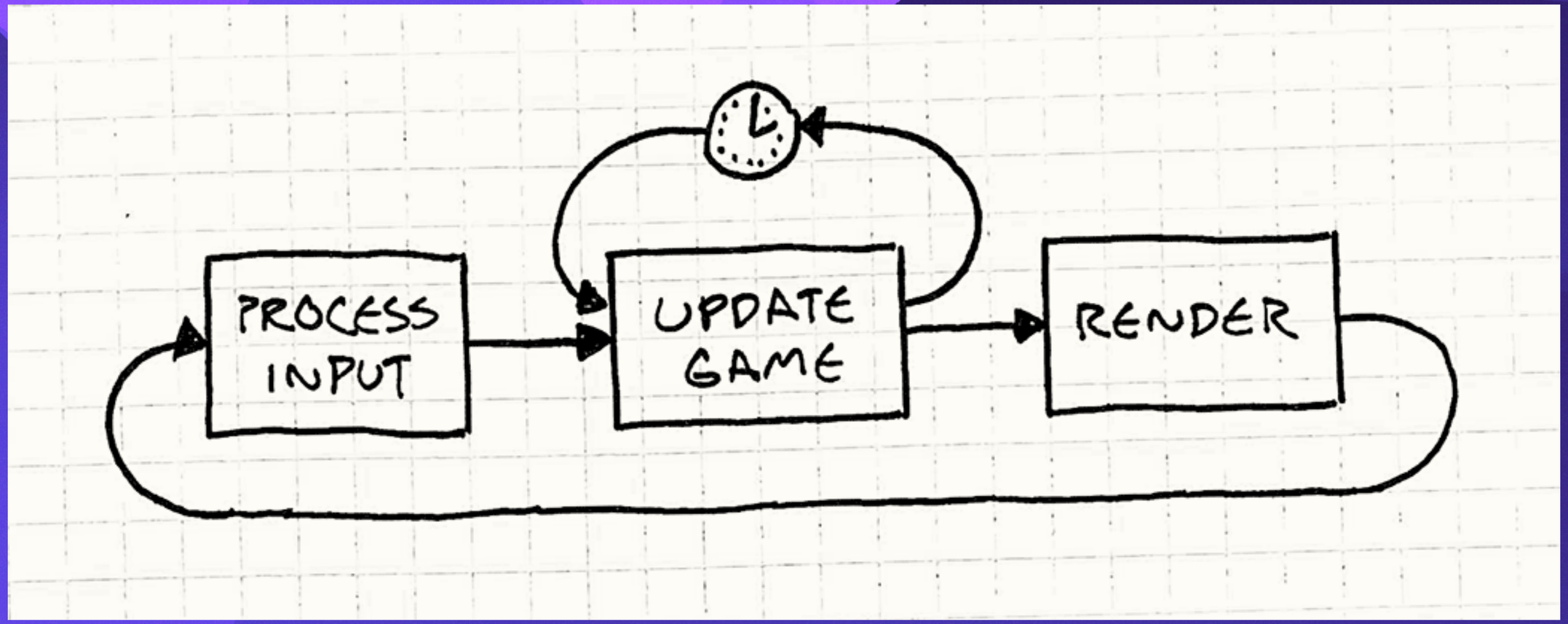
Genius Idea

- Webengineering = boring
- Game
  - Top Down Dungeon Crawler
  - Motivation
- But also a Webpage

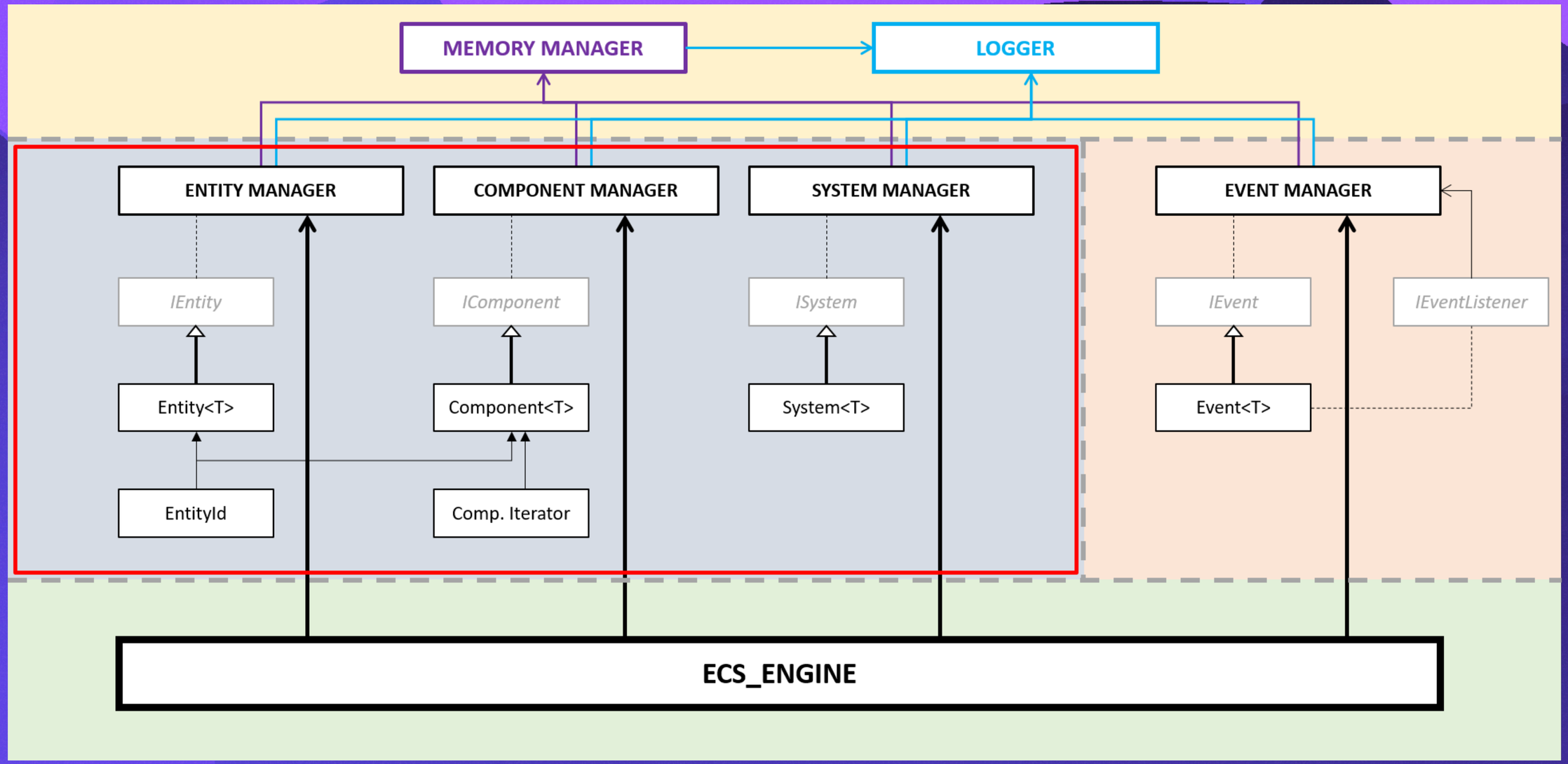
Enter the Gungeon

Architectural Decisions

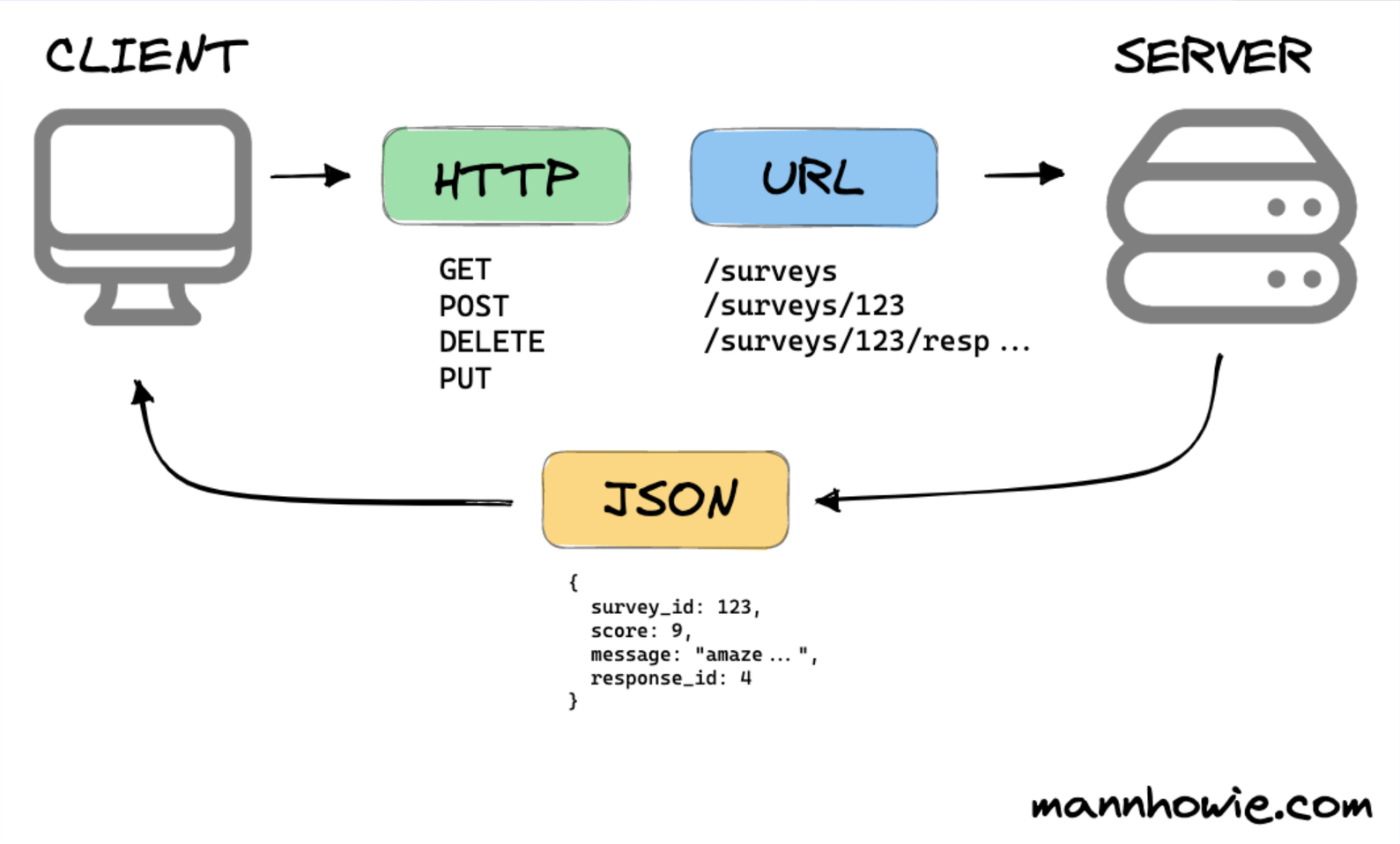
Architecture Decisions - EDA



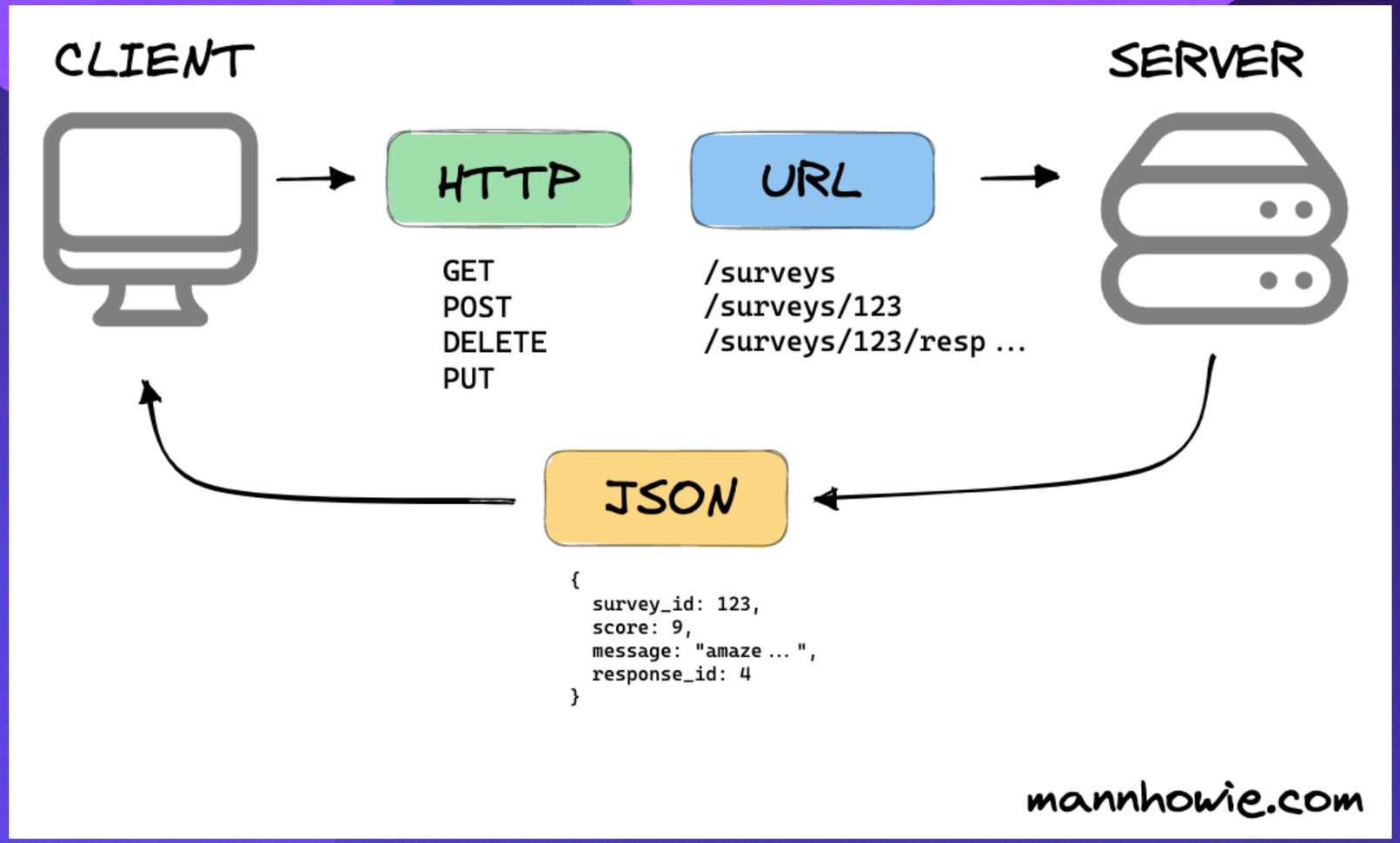
Architecture Decisions - ECS



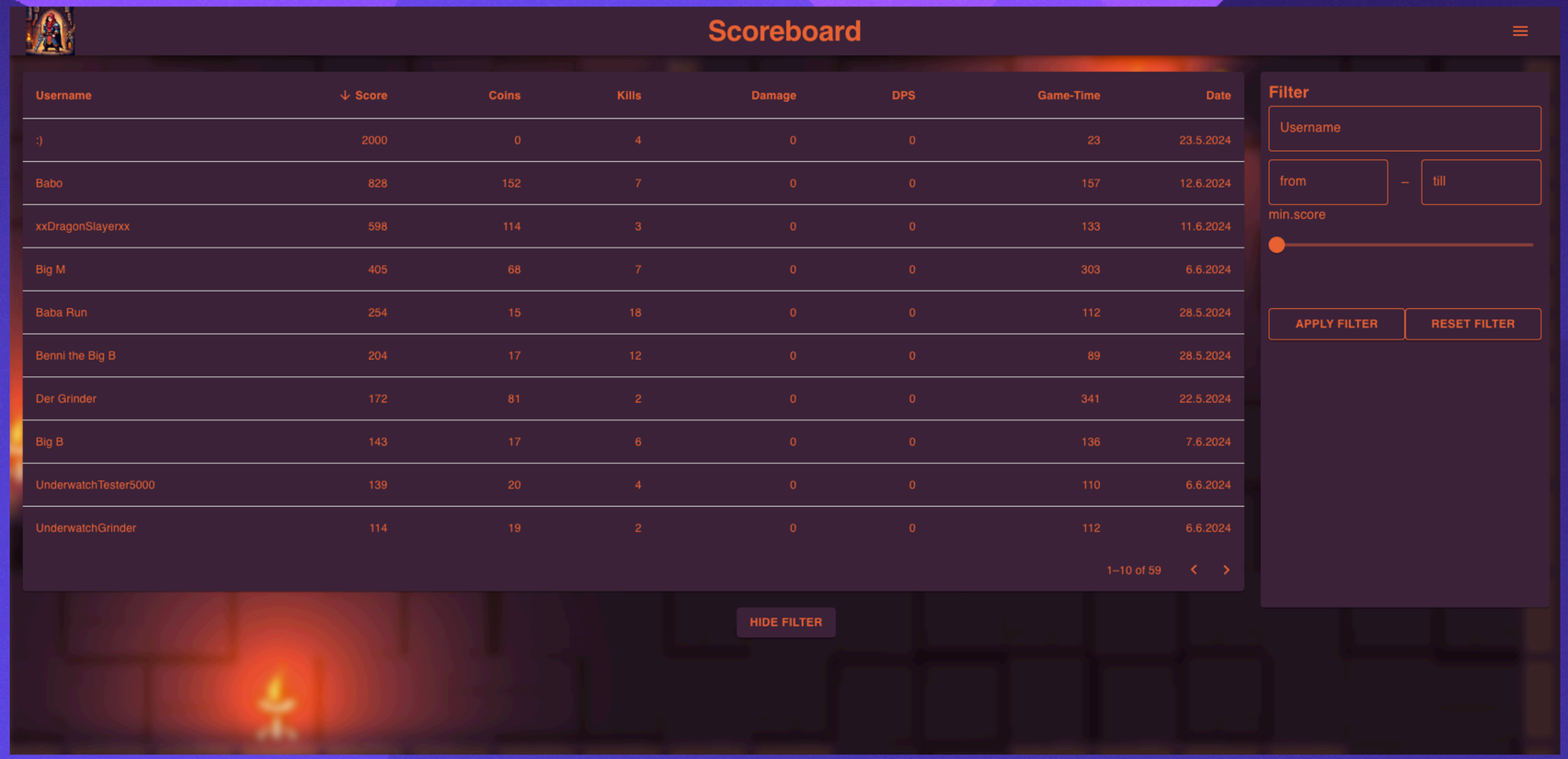
Architecture Decisions - RESTful



Architecture Decisions - RESTful

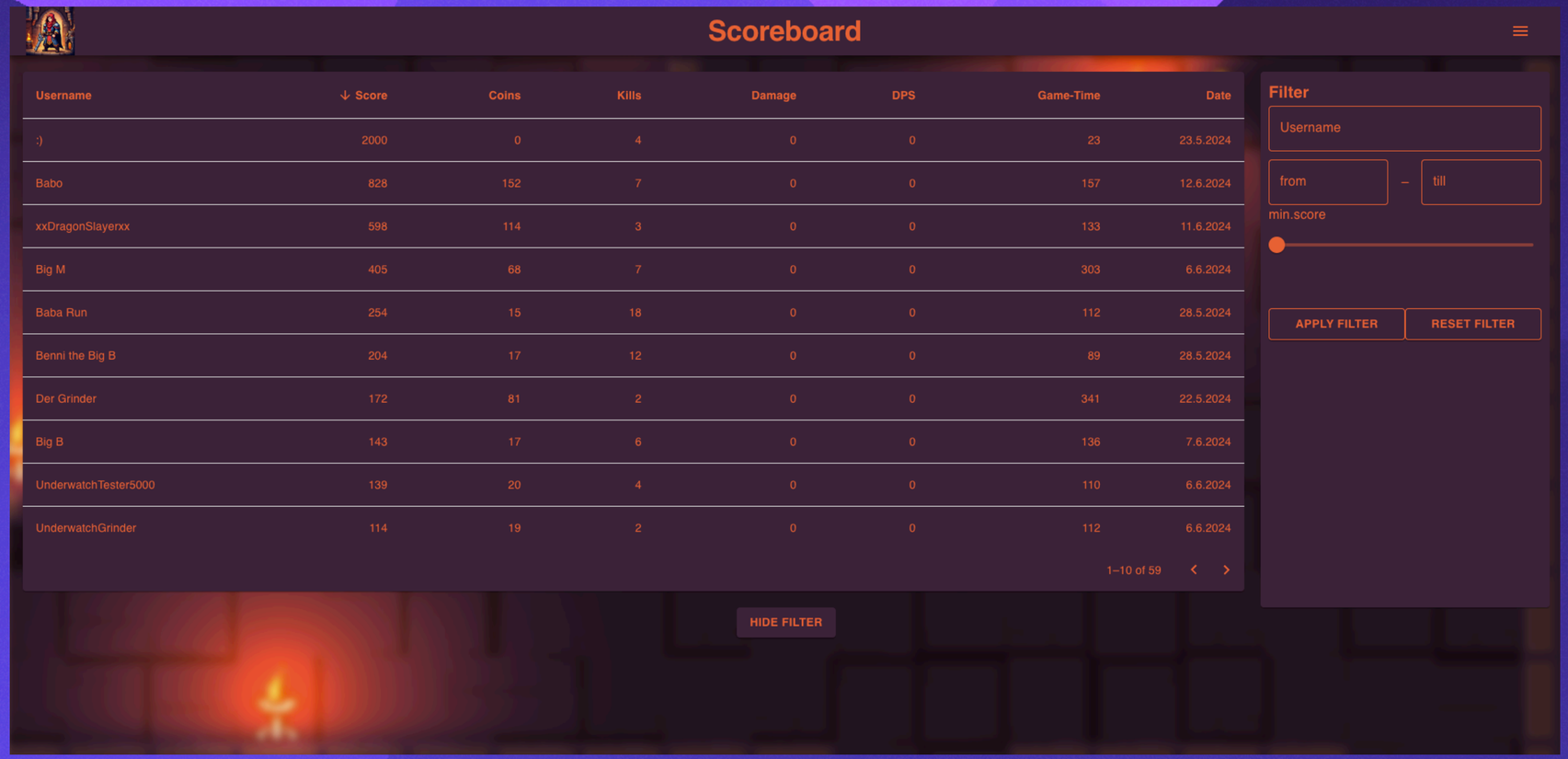


Architecture Decisions - RESTful



Username	Score	Coins	Kills	Damage	DPS	Game-Time	Date
:)	2000	0	4	0	0	23	23.5.2024
Babo	828	152	7	0	0	157	12.6.2024
xxDragonSlayerxx	598	114	3	0	0	133	11.6.2024
Big M	405	68	7	0	0	303	6.6.2024
Baba Run	254	15	18	0	0	112	28.5.2024
Benni the Big B	204	17	12	0	0	89	28.5.2024
Der Grinder	172	81	2	0	0	341	22.5.2024
Big B	143	17	6	0	0	136	7.6.2024
UnderwatchTester5000	139	20	4	0	0	110	6.6.2024
UnderwatchGrinder	114	19	2	0	0	112	6.6.2024

Architecture Decisions - RESTful



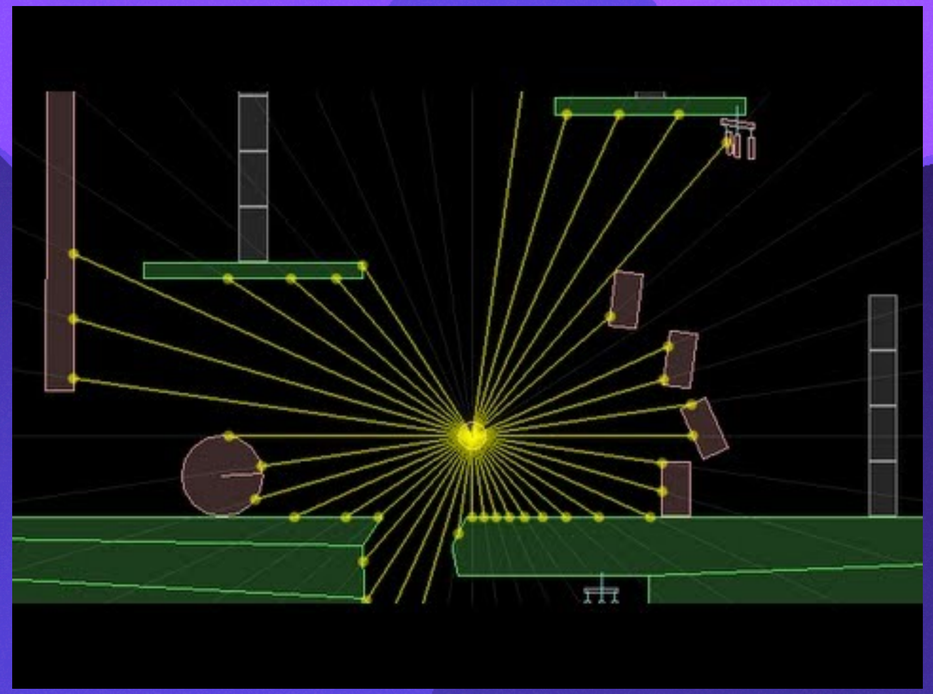
Username	Score	Coins	Kills	Damage	DPS	Game-Time	Date
:)	2000	0	4	0	0	23	23.5.2024
Babo	828	152	7	0	0	157	12.6.2024
xxDragonSlayerxx	598	114	3	0	0	133	11.6.2024
Big M	405	68	7	0	0	303	6.6.2024
Baba Run	254	15	18	0	0	112	28.5.2024
Benni the Big B	204	17	12	0	0	89	28.5.2024
Der Grinder	172	81	2	0	0	341	22.5.2024
Big B	143	17	6	0	0	136	7.6.2024
UnderwatchTester5000	139	20	4	0	0	110	6.6.2024
UnderwatchGrinder	114	19	2	0	0	112	6.6.2024

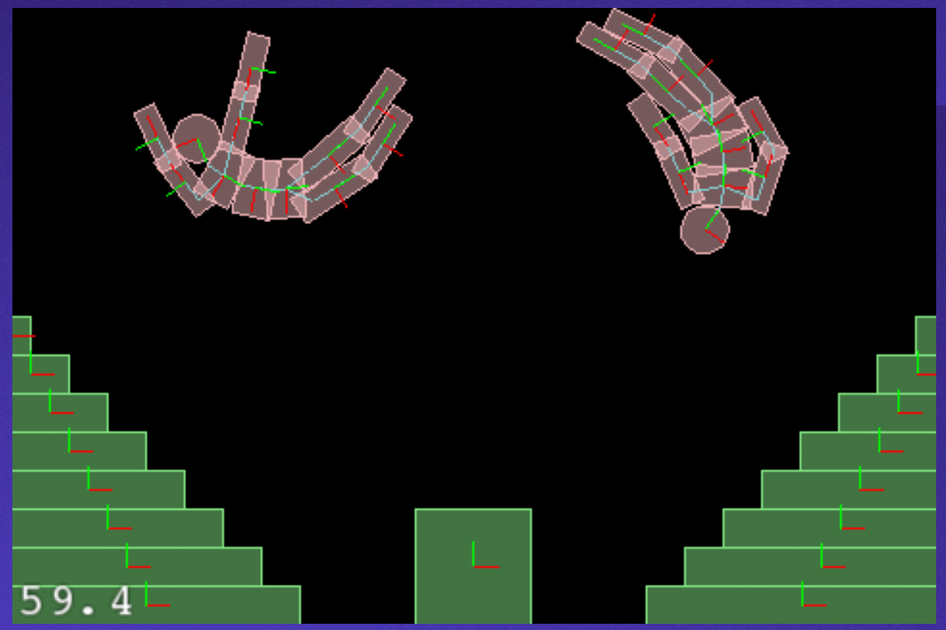
GET /scores/search/filterQuery

Parameters

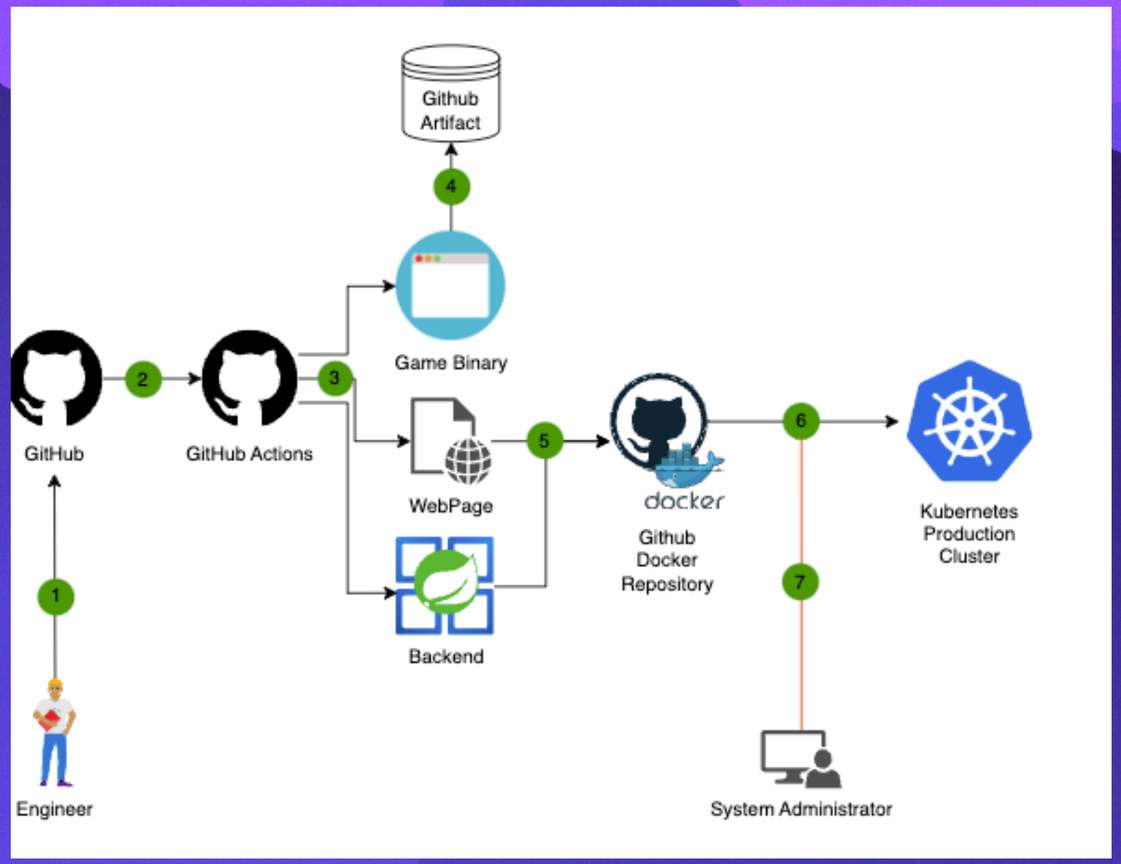
Name	Description
score integer($int32) (query)	score
playerName string (query)	playerName
timeStampA string($date-time) (query)	timeStampA
timeStampB string($date-time) (query)	timeStampB
page integer (query)	Zero-based page index (0..N) *Default value* : 0 0
size integer (query)	The size of the page to be returned *Default value* : 20 20
sort array[string] (query)	Sorting criteria in the format: property,(asc|desc).

Architecture Decisions - Box2D





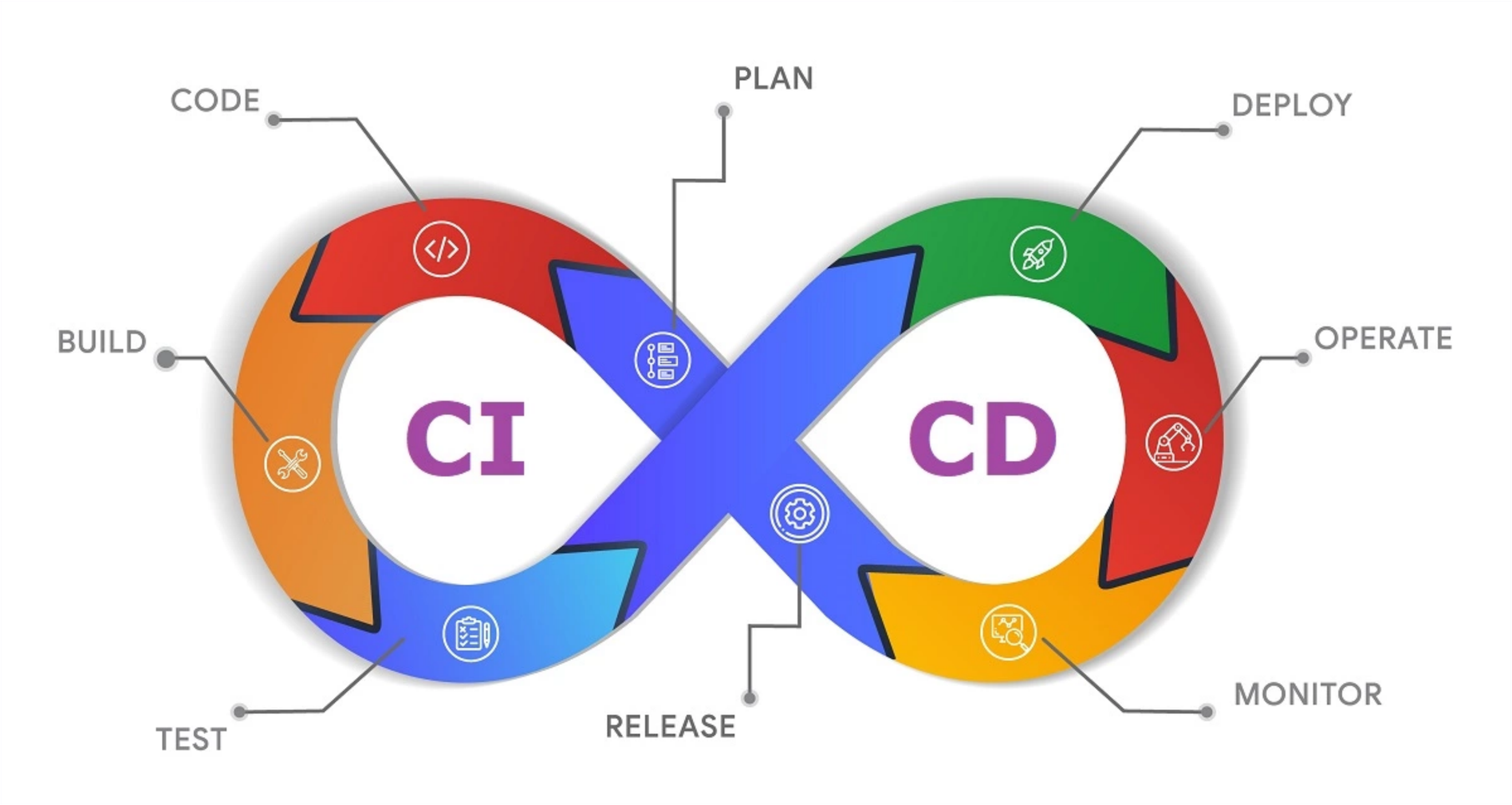
DevOps


Github
Artifact
4
Game Binary
2
3
GitHub
GitHub Actions
WebPage
5
6
docker
Github
Docker
Repository
Kubernetes
Production
Cluster
1
7
Backend
Engineer
System Administrator

https://underwatch.freemine.de/

Live Demo

Lessons Learned



Lessons Learned

- Box2D and libGDX were a mistake
- Using MUI has drawbacks
- Frontend filtering is a bad idea
- Isometric perspective is evil
- GameDev Basics learned
- Maybe we should have created a web page