
AWS
re:Invent

DAT304

How Disney+ scales globally on Amazon DynamoDB

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Disney+

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Agenda

Introduction

DynamoDB use cases

Takeaways



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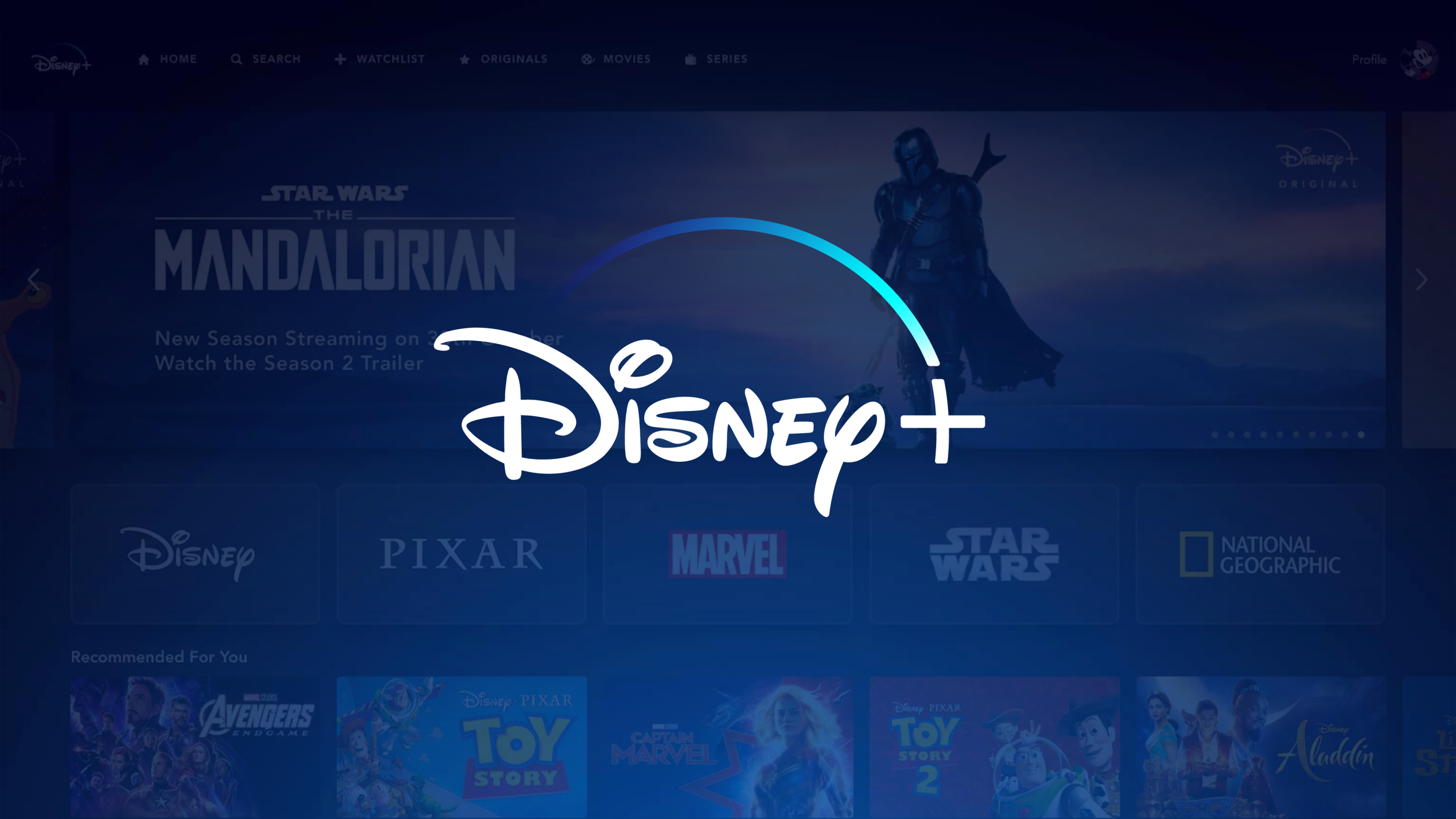
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Introduction

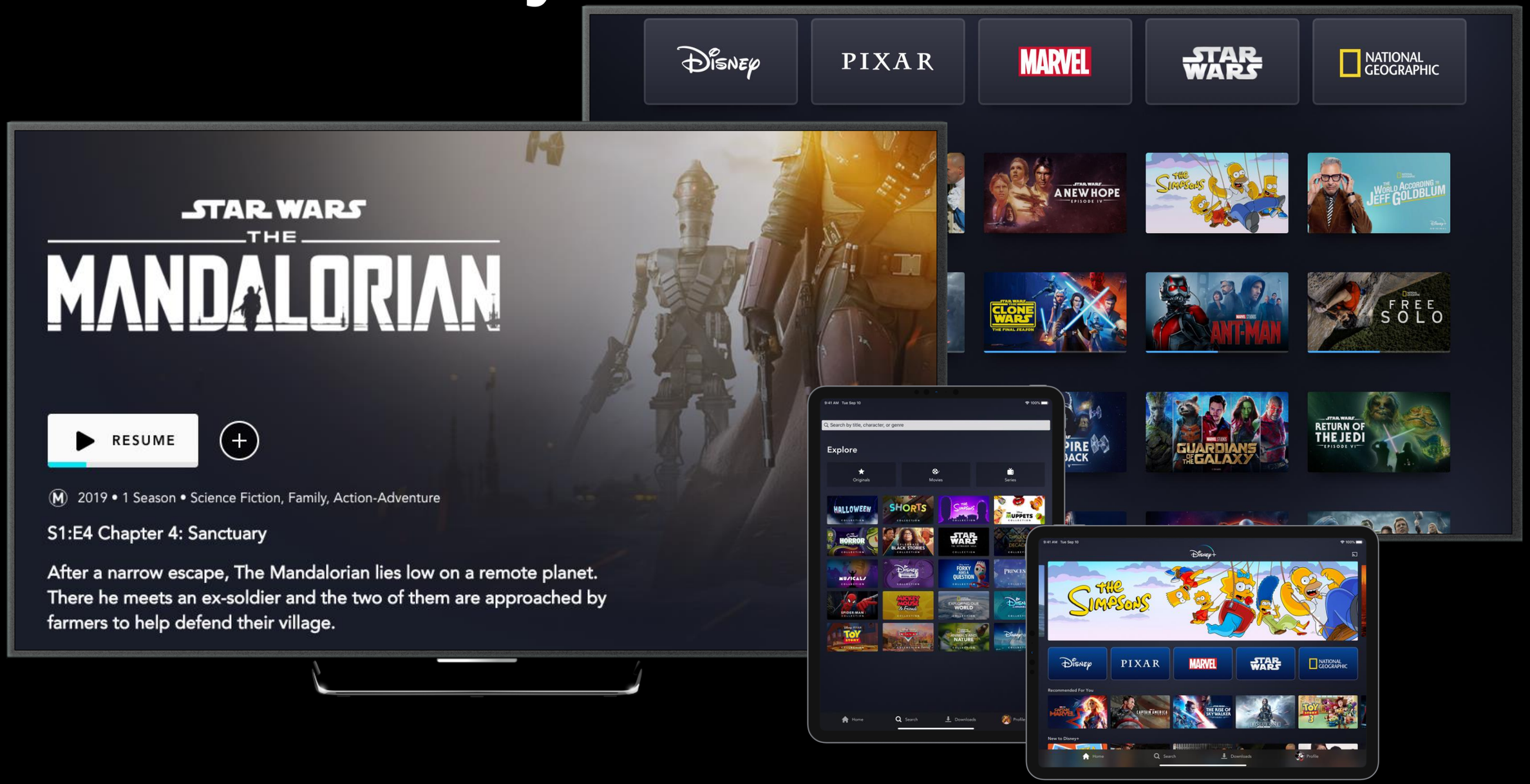


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THE
MANDALORIAN
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Disney
Aladdin

Content discovery



Content discovery scale



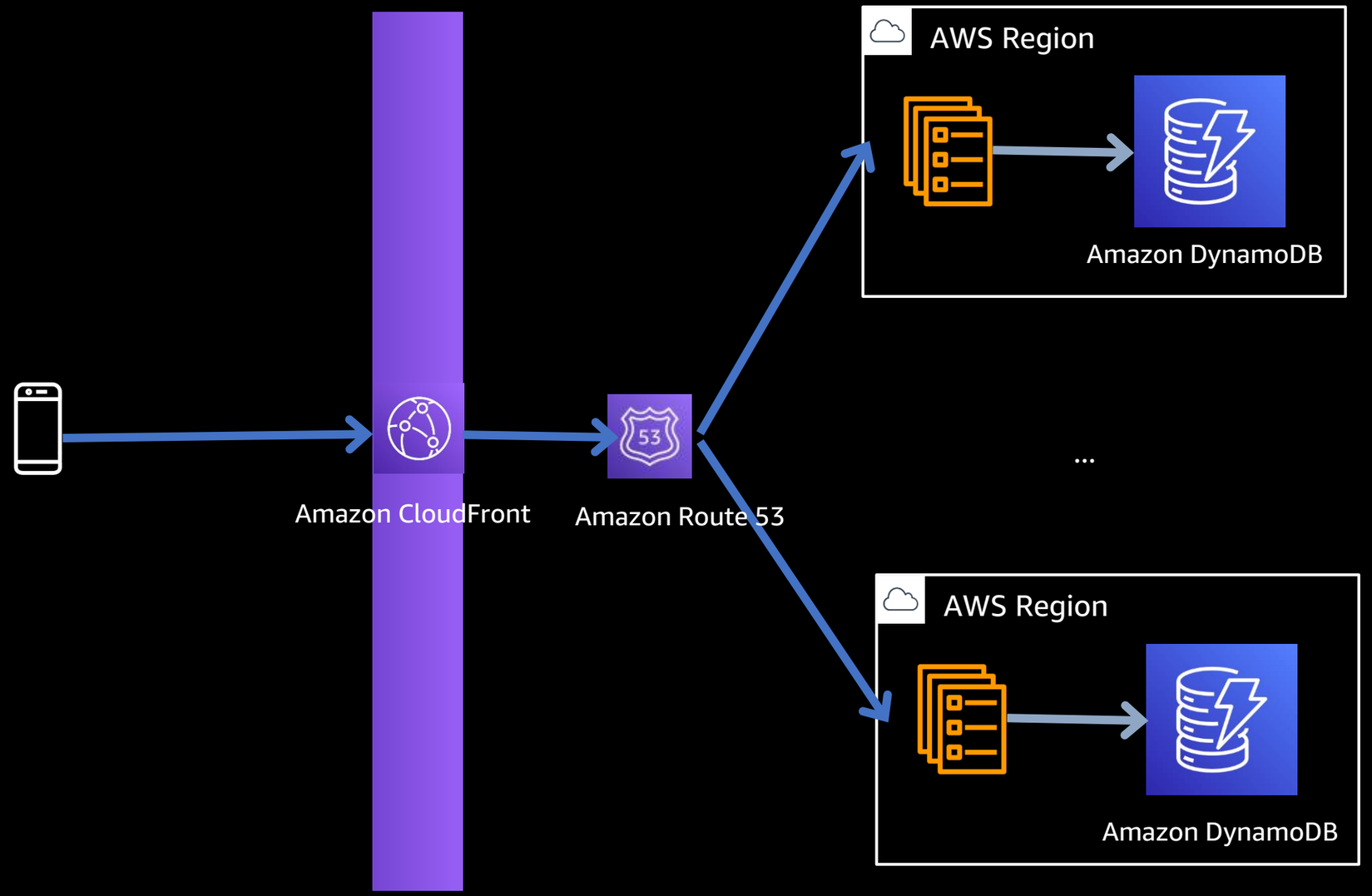
November 12th launch

- Over 3 billion requests to our content APIs

Since launch, we deliver

- Tens of terabytes of content metadata a day
- Hundreds of terabytes of images a day
- Hundreds of millions of recommendations per day delivered by our Machine Learning team, over Amazon Kinesis and inserted into DynamoDB
- Billions of bookmarks ingested a day over Kinesis and into DynamoDB

Multi-region motivations



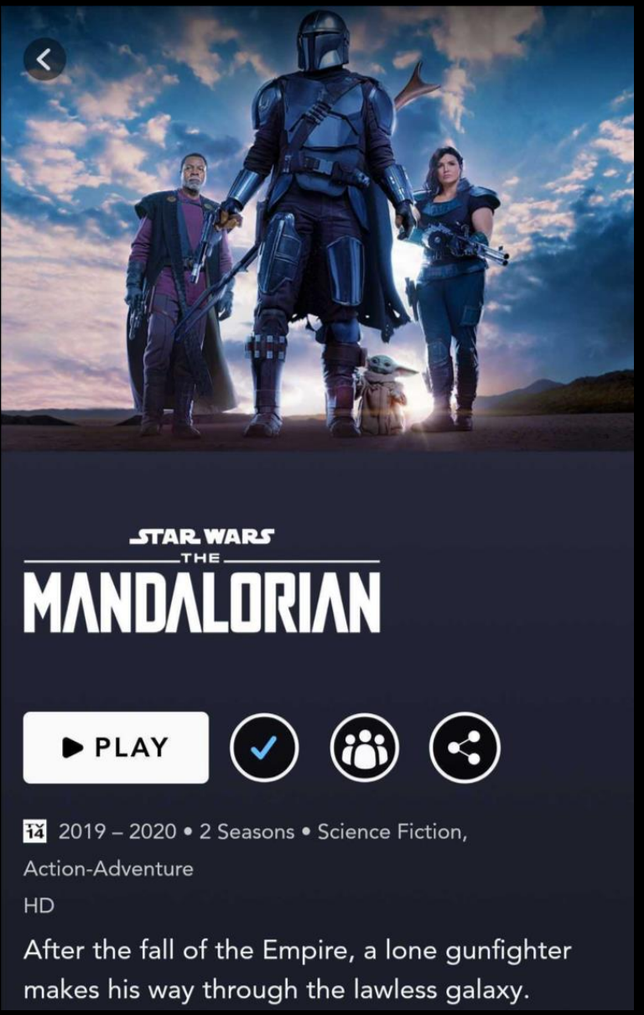
DynamoDB use cases

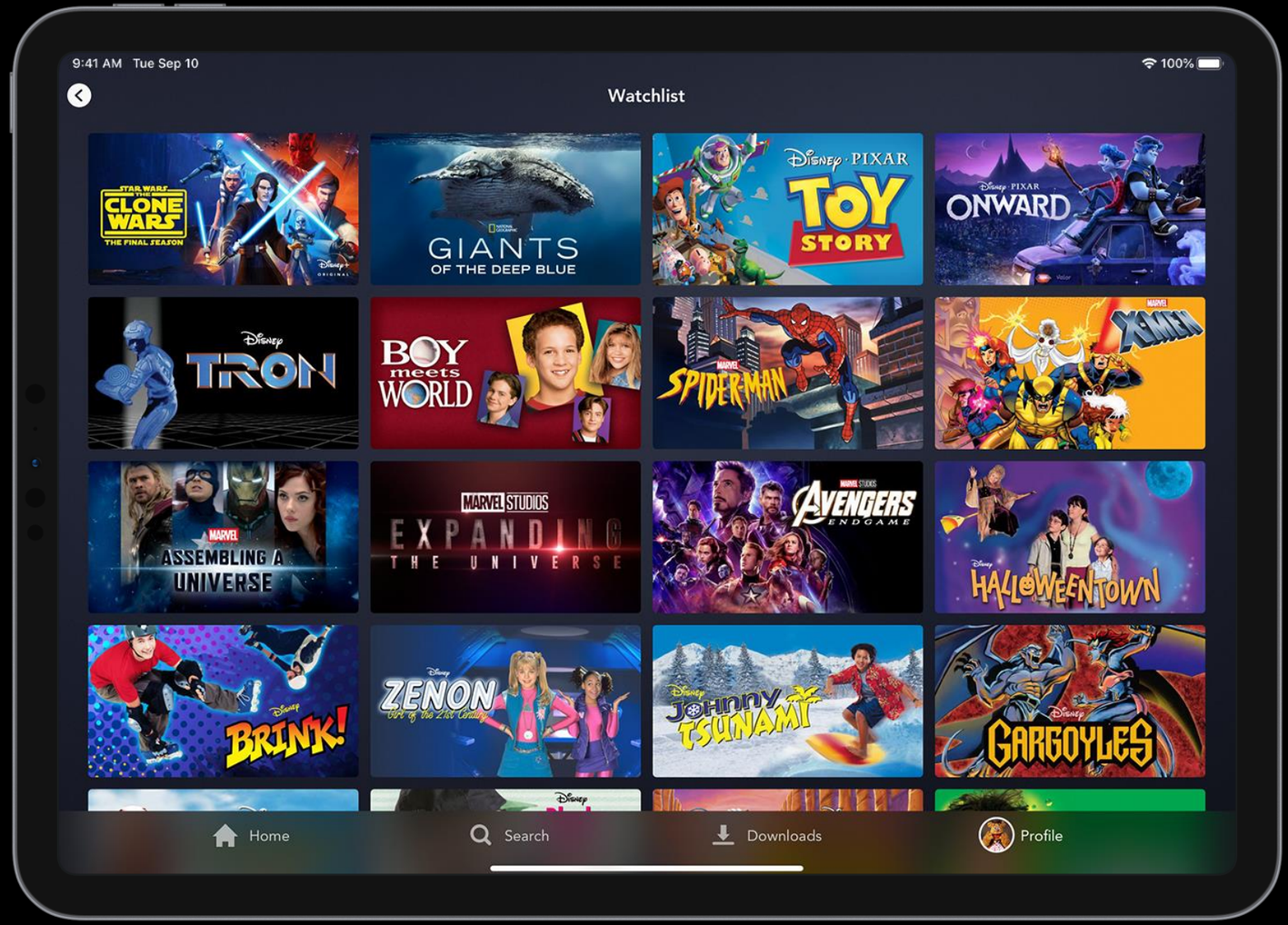


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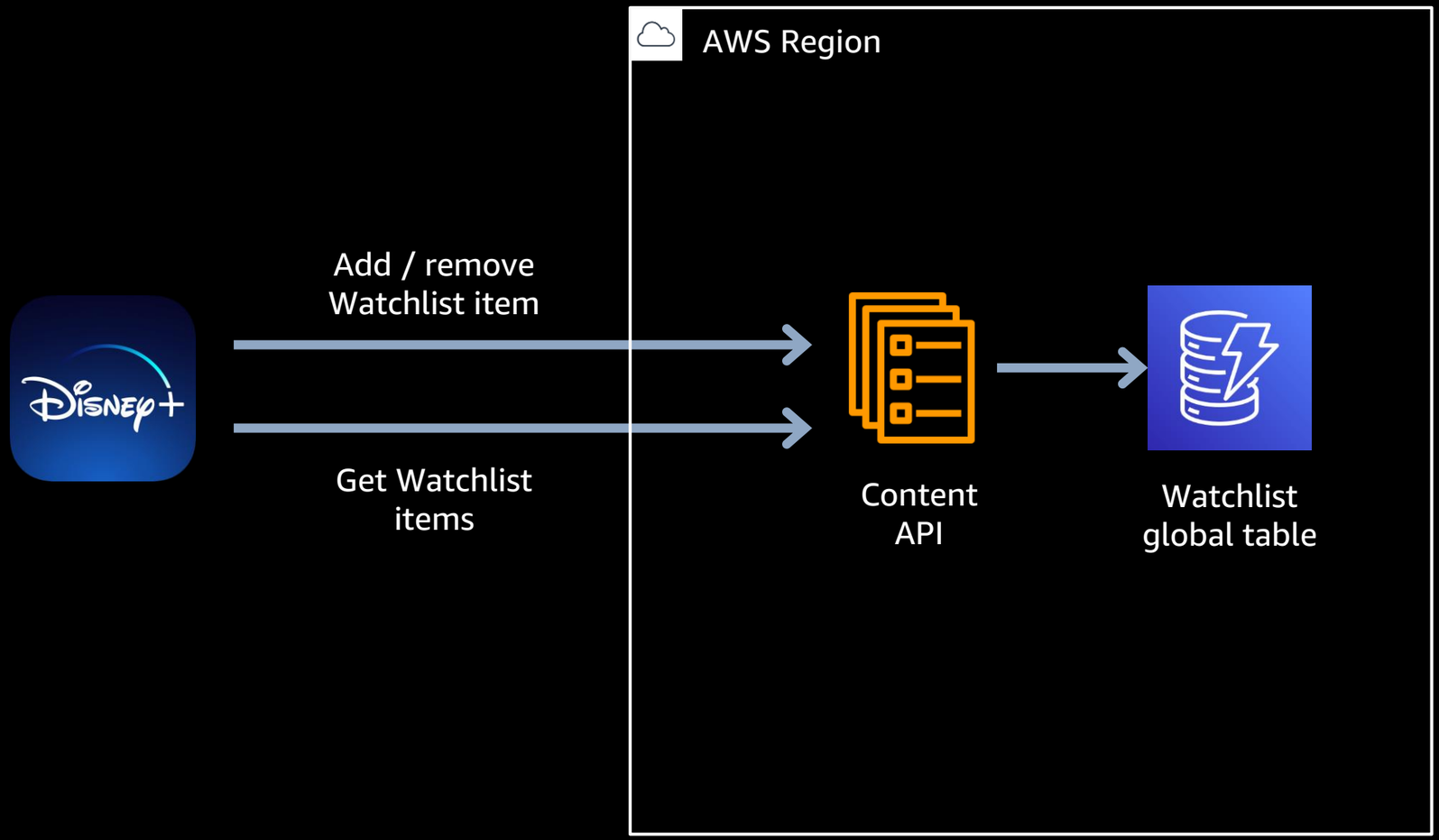
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Watchlist


STAR WARS
THE
MANDALORIAN
PLAY
2019 – 2020 • 2 Seasons • Science Fiction,
Action-Adventure
HD
After the fall of the Empire, a lone gunfighter
makes his way through the lawless galaxy.


9:41 AM Tue Sep 10
100%
Watchlist
Home
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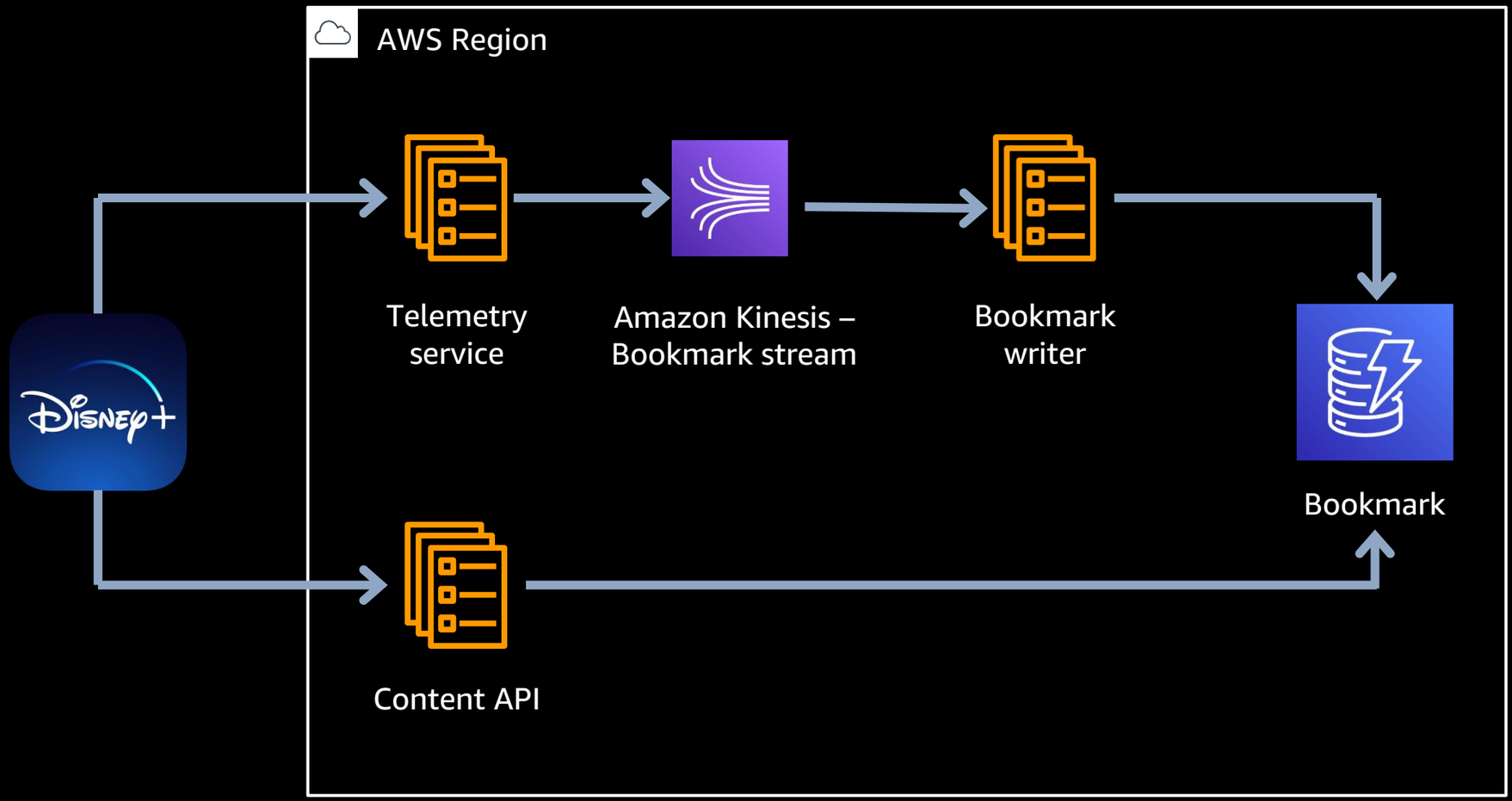
Watchlist global table



Bookmarks


9:41 AM Tue Sep 10
100%
New to Disney+
Continue Watching
Star Wars: The Clone Wars
S1:E1 Ambush
25min remaining
Elephant
22min remaining
Simpsons Movie
29min remaining
Because You Watched Howard
Halloween Movies
Home
Search
Downloads
Profile
9:41 AM
Star Wars: The Clone Wars
EPISODES
SUGGESTED
EXTRAS
Season 1
1. Ambush
25m
Yoda leads three clone troopers against a droid army.
2. Rising Malevolence
27m
The Jedi face a devastating new Separatist weapon.
3. Shadow of Malevolence
26m
Anakin leads a strike on General Grievous' warship.
4. Destroy Malevolence
24m
Padmé and C-3PO are caught in the middle of a space
9:41 AM
100%
THE FINAL SEASON
PLAY
2008 – 2020 • 7 Seasons • Science Fiction, Animation, Action-Adventure
HD • 5.1
S1:E1 Ambush
Yoda leads three clone troopers against a droid army.

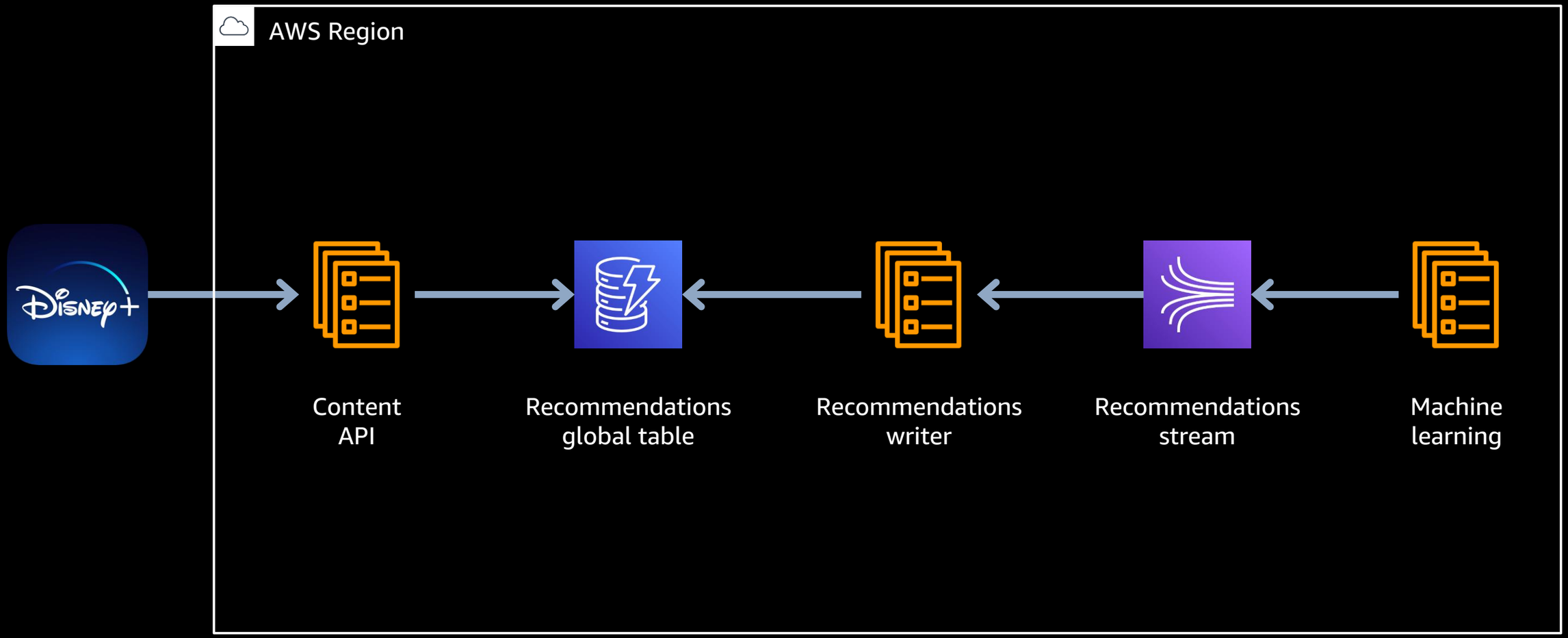
Bookmarks global table



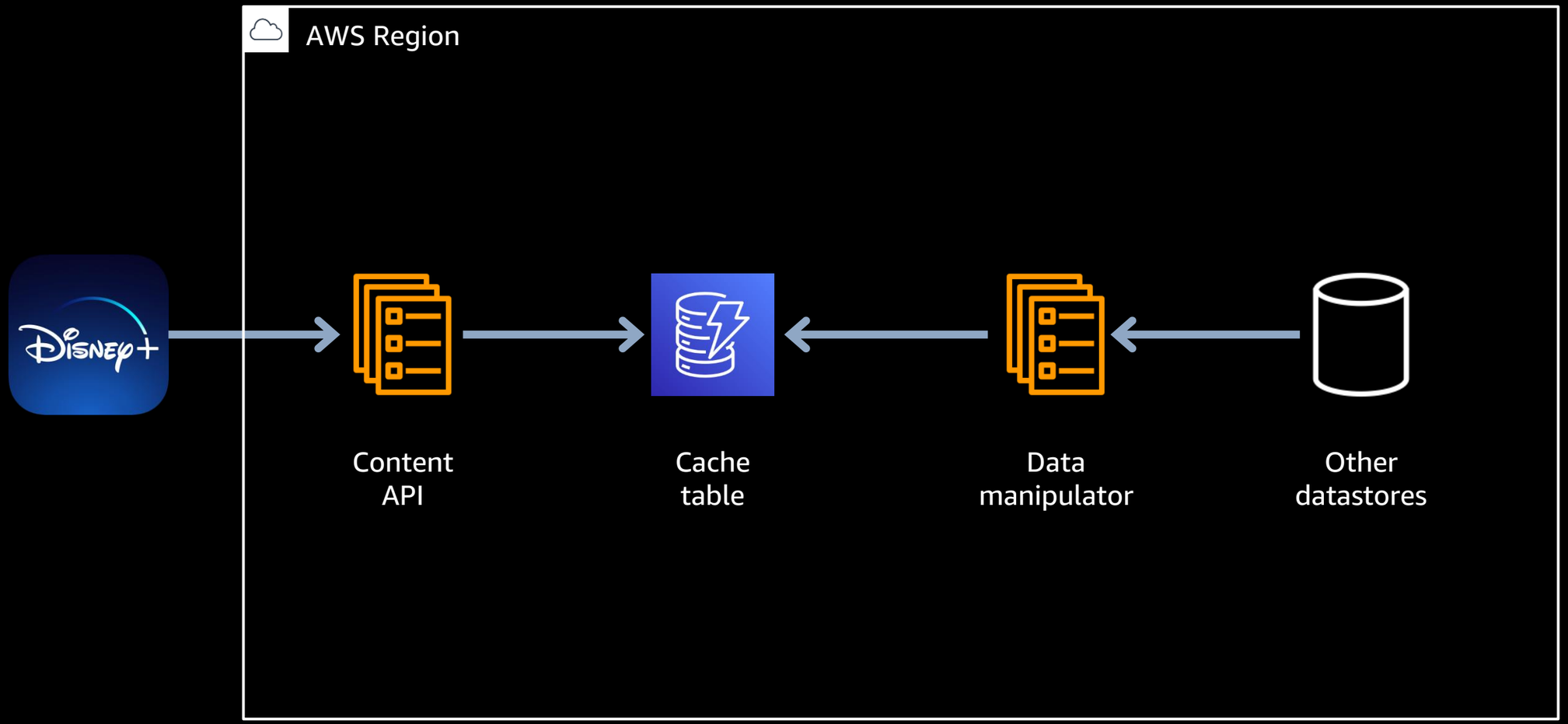
Recommendations



Recommendations global table



Content caching



Takeaways



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How DynamoDB tables benefit us

Global table benefits

- Region evacuations > failover
- Region expansion

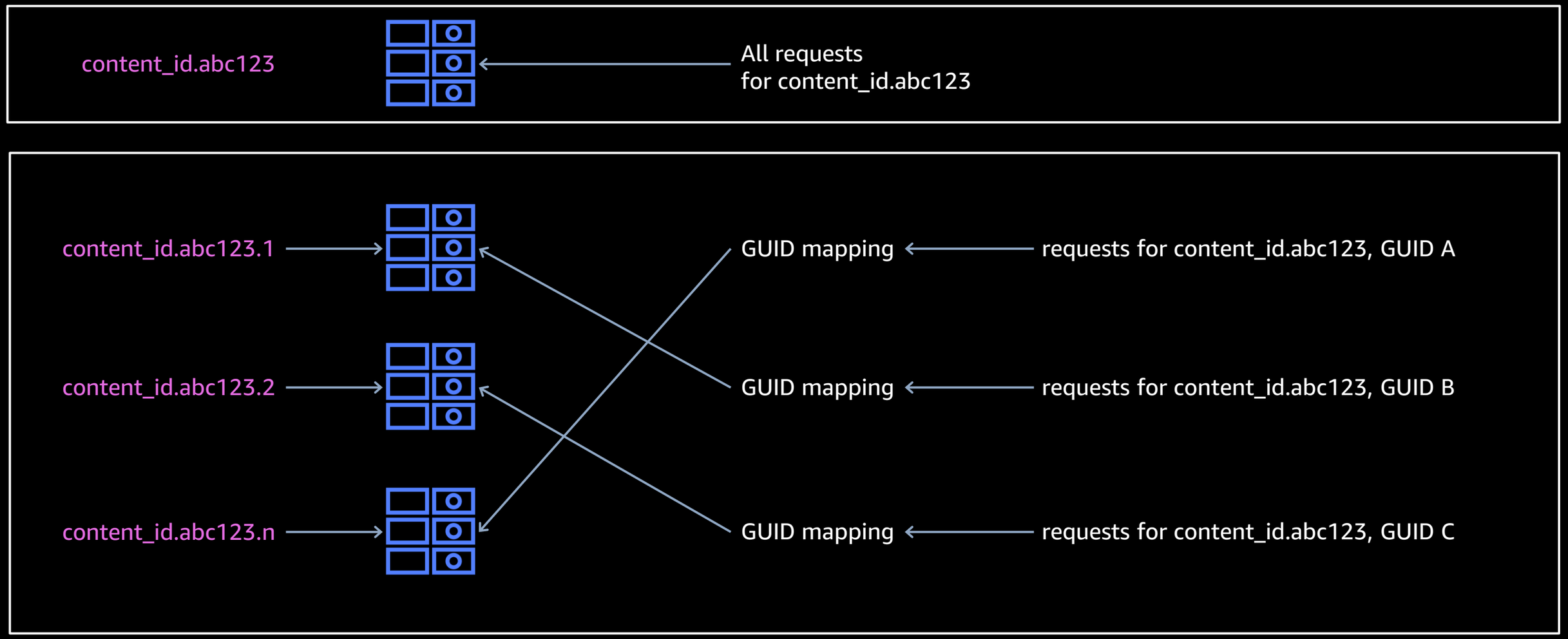
Scaling benefits

- Recommendation and bookmarks volume growth
- On-demand versus provisioned mode

Pre-partitioning

- A large influx of records will cause a lot of partitions to be created on an empty table, as the data grows
- Prior to launch, we set a high provisioned write capacity on the table
- Partitioning activities occurred over several hours
- Switched back to on demand

Supporting concentrated read traffic



Thank you!



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Data



Software engineering

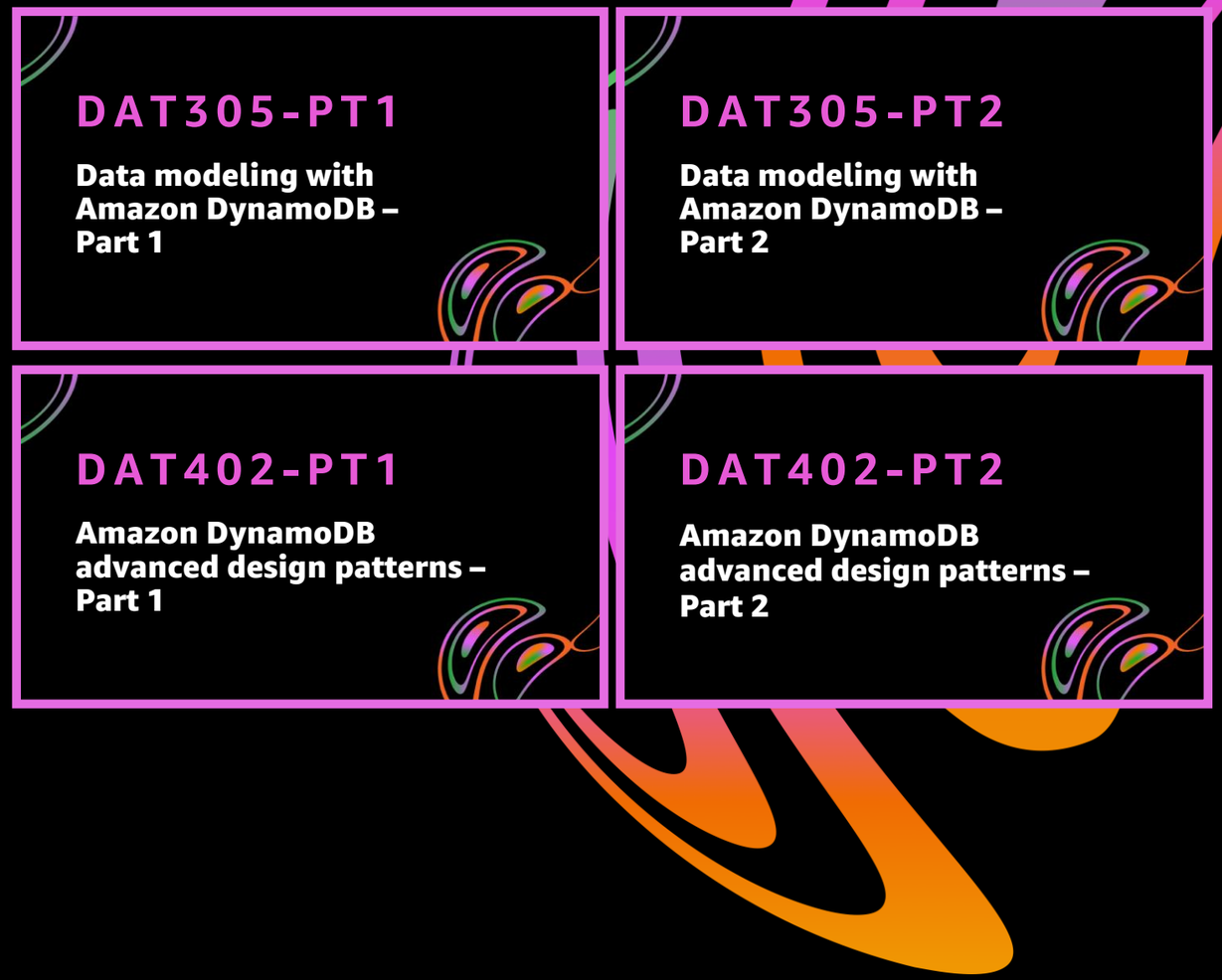


Systems engineering



User experience / design

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