	Date://		
	Date:/_/		
#4:	Microservices Design Patterns:	(3	
	* "HLD SAGA Pattern	The Asset In	
6)	400	(1)	
0	CORS solves toubivibai		
	2 [-2] [12]		
)	Strangler Pattern: Used when legacy appli	cation	
	refactor to Microservice		
	Monolithic Microservice		
		this no of	
	governs by strangler Pattern	services	
	(How to convert)	governed	
	Individual Component scaling in the the	by decompo sition	
	30% traffic		
	traffic 928-89 12 12	10	
	Controller	Naval	
	onent 53 Sating the De	Pay	
	API Traffic	The second second	
-	Suppose we only have I feature of monolithic	, into	
•	nicroservice. Now controller can decide how		
10	traffic can be redirected to monolithic and no	icroservice.	
	If Microservice is down/fail, then 100% touthic		
	will be shifted to monolituic.		
	Once success, we can have 10%, 20%, 50%, 1	00%	
e vewn	traffic on microservice. #learnthesmart	erway	

	Date://		
2)	Data management in microservice		
	CONTRACTOR POLICE		
a)	Database for each b) Shared Database		
	individual service 2980 6		
	S1 S2 S3		
norte	31 52 53 50 000000000000000000000000000000		
	Activor to Microservice A		
	30 IVISZONOM JINTAJONOM		
Hus 40 0			
# CENICES	Disadvantage of Shared Database:		
BONNINGS	[[[(tovina et aver)		
G SI HOO	Individual Component scaling is difficult.		
	SOL HOHE		
Or	du S1 DB-2GB		
Inver	lang 52		
Pay	ment 53 Scaling the DB		
	API Traffic		
obsi	suppose if order service has 1 million request		
duin			
מים בניעונפ	But the issue is for Order service we can't		
o.H.c			
	scale the whole DB, which is a bit difficult.		
.100	once success, we can have lot, sor, 501, 1		
	traffic on microscrutice		

#learnthesmarterway

-	Date://
ii)	sa sures laubivibai dena rol sendotal e
•	S2 DB> 9+ has Ti, Tz, T3, To tables
	1 52 22 23
	53
	Now suppose S3 wants to modify/delete one column
1 done	in T3, but since that wolumn is used by other
•	Services \$1 and \$2, so \$3 can't modify that column
10	because there is dependency from other services
Die Oct	service st and call API of so and got the of
#	Advantages of Shared Database: 20 mon
9	e Based on requirements each service can hav
1)	Querys Join is easy or is a new sist
ii)	Transactional Property (ACID) is easy.
•	of scalary individual service DB is easy to
•	Now the advantages of shared Database becomes
•	challenges for Database for each individual service.
•	# SAGA POSTEGIN:
•	S1 S2 S3 Transaction is spanning
-	over a distributed DB.
	ACID ACID -> Solved by SAGA
	Pattern
•	(T1T5) (T6T8) (T9.T10)
	Since tables are present indifferent DB so guery
	join is a challenge: -> Solved by CORS
YEWN	#learnthesmarterway
2	

	Date://
->	Database for each individual service
older out	ET , ST , ST BON AB 4 80
	S1 = S2 S3
	T XX
הת שלנותה	Mous suppose sa wants to madify, delete a
19,14	SQL Mongo DB Postgres (Based on
Humme.	Advantage: + 100 82 02 22 box 12 3210002
29300	One service cannot directly access DB of other
	service s1 can call API of s2 and get the data
	from DB. : 220 dated brants to espectrovold #
•	Based on requirements each service can have
	their own DB (Relational or Nosal UC)
•	Modifications on DB is easier.
•	Scaling individual service DB is easy to
2,2741023	handle more transactions
osivros L	challenges for establish for each individua
#	SAGA Pattern:
eg.	Place an Order (Transaction)
0806	HUMBER OF POR
ADAS	DB DB DB
	Order Inventury Payment
	-> update update
mone	(success) (success) Payment
0	wind is a challenge - Solved by CORS
	How to rollback? #learnthesmarterway
	#icarriclesmarterway

		1
	Date://	
b)	Orchestation: To overcome cycle dependency we	•
into	Orchestation: To overcome cycle dependency we have orchestation.	
D		•
	morbiner Lours 51 oups 2 : ADAR	
	orches (so)	
Tus	tation who is tought	•
-	\$ 53 (SELVISE)	•
-	Orchestation will call s1 and if soccess, it will	•
slabou	call sz and similarly s3. If s3 fails then	•
belied.	its Orchestrator responsibility to call \$1 and \$2	•
	to perform the roll back	-
	Code Transaction	-
#	Interview Question: : ADA2 to DOGET	
0.	Scenario: Person A pays Rs:10 to Person B.	
	Microservice Architecture:	
	Message Event Ev	U
Paymen	+ Initiated & Initiated & Initiated	6
Requ	est 2 Payment	
	Payment fails X history	
	check 2001/000 th (Now What)?	
	balance stanger mandragement and as no	
so of the	> Yes Balance Rs 90 Rs 90	
THE REAL PROPERTY.	goal since misses Rs = 100 DB update	
/	100-10=90	(
7500	#learnthesmarterway	

- → In CORS, for each individual microservice DB

 we have 3 operations Create, Update, Delete.

 Similarly for other services.

 → But we have one common DB (View DB)

 which has all DB (tables) data in a single
- To sync data b/w each individual DB and the common DB for read operation we can have and ways:
 - continuously for any create, update and delete operations.
 - uill be Creak/Updak/Delete, DB trigger
 will updak View DB.
- -> Helps in Query Join (CORS)
- -> We are segregation c and & from the request

Create, Update, Read Delete

READ - TI DI