







## **Database Choice**



**Amazon DynamoDB** 

- 1. Serverless
- 2. More Scalable
- 3. Can store petabytes of data
- 4. More Data Secure



**Amazon DocumentDB** 

- 1. Requires Server Management
- 2. Less Scalable
- 3. Maximum storage of 64 TB
- 4. Less Data Secure



## **Metadata Schema**

Entity	PK	SK	Data	GSI1 PK	GSI1 SK	GSI2 PK	GSI2 SK
User - RW	USER#userID/username	USER#userID	*JSON Object* - General Info		timestamp		timestamp
Product - RW	PROD_COMP#company	PROD#prodID	*JSON Object* - Name, Company, etc		timestamp		timestamp
ligand RW	LIG#ligandID	LIG#ligandID	*JSON Object* - Name, Company, etc		timestamp		timestamp
Purification - RW	PURE#prodID#ligandID	timestamp	*JSON Object* - Elution, Wash, Strip, etc	prodID#ligandID	timestamp	Operator	timestamp
Analysis - HPLC	HPLC#prodID#ligandID	timestamp	*JSON Object* - Time, UV1, UV2, Fluoresence	prodID#ligandID	timestamp	Operator	timestamp
Analysis - Assay	ASSAY#type#prodID#ligandID	timestamp	*JSON Object* - Position, Dil Factor, Volume	prodID#ligandID	timestamp	Operator	timestamp
Chromatogram	CHROM#prodID#ligandID	timestamp	*JSON Object* - UV, Cond, Injection, pH, etc	prodID#ligandID	timestamp	Operator	timestamp
Analysis - SDS PAGE	SDSPAIGE#prodID#ligandID	timestamp	*JSON Object* - Time, Buffer, Voltage, Gel Image	prodID#ligandID	timestamp	Operator	timestamp
Analysis - miniTEM	miniTEM#prodID#ligandID	timestamp	*JSON Object* - Sample prep/vol, stain tech, img	prodID#ligandID	timestamp	Operator	timestamp
Analysis - SEC MALS	SECMALS#prodID#ligandID	timestamp	*JSON Object* - RIU, Detector V, AU	prodID#ligandID	timestamp	Operator	timestamp
Upstream - Input	US_INPUT#prodID	timestamp	*S3 Object* - Input Conditions	prodID	timestamp	Operator	timestamp
Upstream - Cell Coutner	US_COUNTER#prodID	timestamp	*S3 Object* - Passage No, Read No, Average	prodID	timestamp	Operator	timestamp
Upstream - Rebel Analyser	US_REBEL#prodID	timestamp	*S3 Object* - Dilution Factor, Amino acids, Conc, S	E prodID	timestamp	Operator	timestamp
Upstream - Analysis	US_ANALYSE#prodID	timestamp	*S3 Object* - Analysis Details same as DS	prodID	timestamp	Operator	timestamp



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