

Fig 1: Apache Kafka Architecture

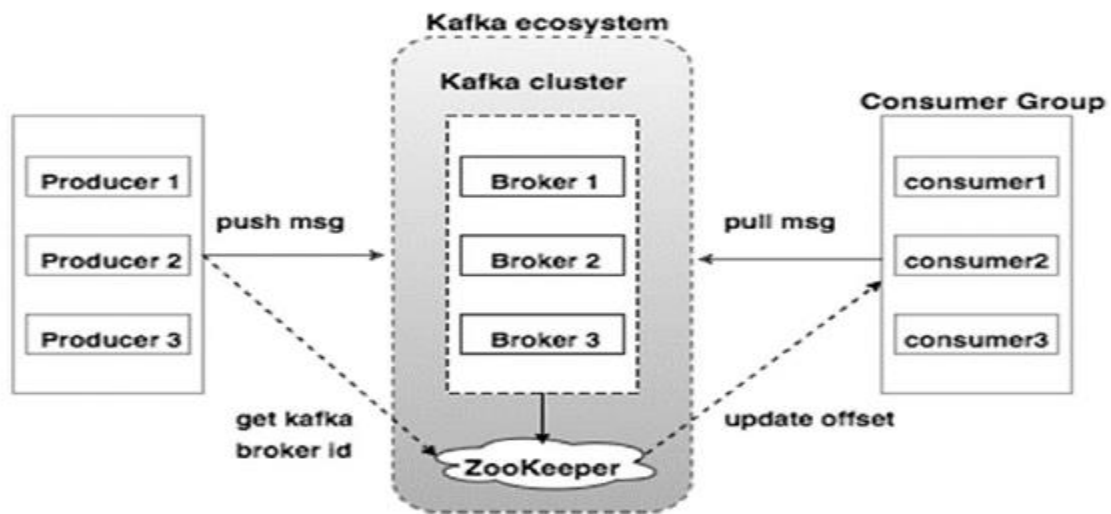


Fig 2: Kafka Ecosystem

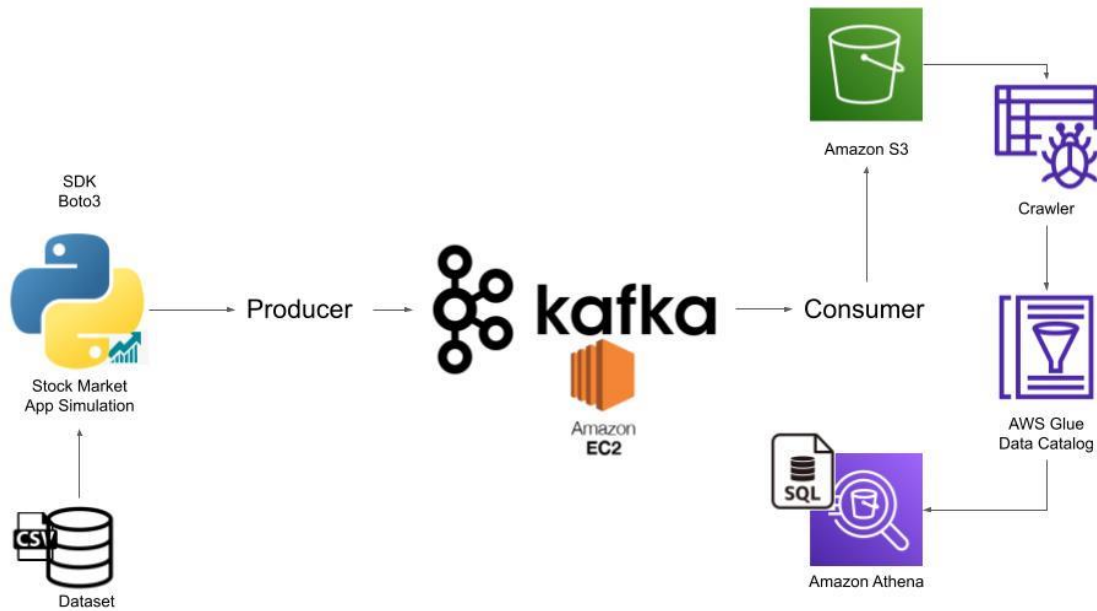
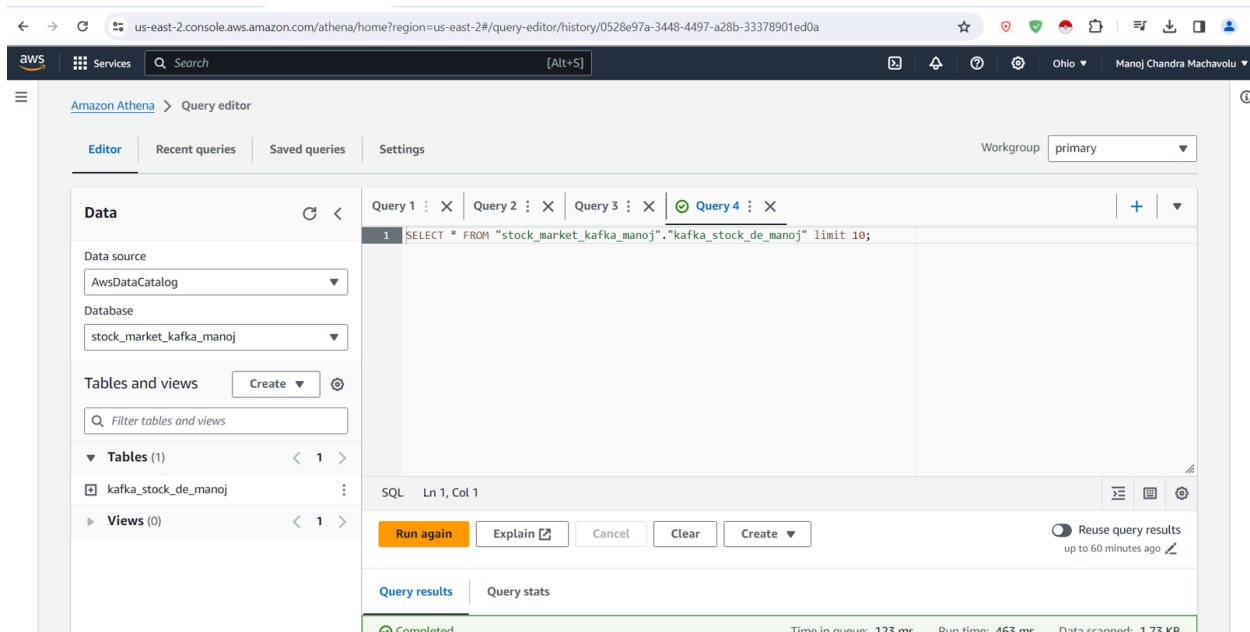


Fig 3: Project Architecture

The screenshot shows the AWS S3 console interface. The left sidebar contains navigation options like Buckets, Access Grants, Access Points, Object Lambda Access Points, Multi-Region Access Points, Batch Operations, IAM Access Analyzer for S3, Storage Lens, Dashboards, Storage Lens groups, AWS Organizations settings, Feature spotlight, and AWS Marketplace for S3. The main content area shows the 'kafka-stock-de-manoj' bucket. The 'Objects' tab is selected, displaying a list of 9 objects. The table below shows the details of the first four objects.

Name	Type	Last modified	Size	Storage class
stock_market_0.json	json	February 19, 2024, 12:10:42 (UTC-05:00)	189.0 B	Standard
stock_market_1.json	json	February 19, 2024, 12:10:42 (UTC-05:00)	198.0 B	Standard
stock_market_2.json	json	February 19, 2024, 12:10:42 (UTC-05:00)	198.0 B	Standard
stock_market_3.json	json	February 19, 2024, 12:10:42 (UTC-05:00)	199.0 B	Standard

Fig 4: Data files stored on S3 Bucket



*Fig 5: Query editor on Amazon Athena*

#	index	date	open	high	low	close	adj close	volume
1	GSPTSE	2005-06-28	9983.099609	10062.29981	9980.200195	10041.0	10041.0	9.59814E9
2	NYA	2003-06-25	5551.180176	5592.279785	5523.149902	5523.350098	5523.350098	1.4705E9
3	GSPTSE	2013-04-24	12127.7002	12271.29981	12090.90039	12270.40039	12270.40039	1.820036E10
4	HSI	2021-02-24	30702.65039	30792.88086	29532.67969	29718.24023	29718.24023	4.8463353E9
5	HSI	2007-08-08	22102.75977	22540.30078	22100.33984	22536.66992	22536.66992	1.9870812E9
6	HSI	2011-06-09	22628.13086	22647.30078	22372.93945	22609.83008	22609.83008	2.4427316E9
7	GSPTSE	1982-06-10	1432.099976	1432.099976	1424.599976	1427.199951	1423.575684	0.0
8	TWII	1998-07-21	8076.580078	8092.439941	7940.620117	7949.200195	7949.169922	0.0
9	J203.JO	2016-10-04	51658.98828	52224.23047	51658.98828	52040.85156	52040.85156	0.0

*Fig 6: Results*