

AWS Project Snapshot - CMS Hospital Readmission Analysis

Project Name: CMS Hospital Readmission Analysis

Date: April 15, 2025

Tools Used:

- Amazon S3
- AWS Glue (Crawler + Data Catalog)
- Amazon Athena (SQL querying on S3)
- Amazon QuickSight (Dashboard visualization)

Data Source:

- File: hospital_readmission_summary.csv
- Storage: S3 bucket `healthcare-readmission-data-shazi`

Glue:

- Crawler: cms_readmission_crawler
- Database: cms_readmission_db
- Output: Table automatically or manually created with header skip config

Athena:

- Table: readmission_healthcare_readmission_data_shazi
- Format: OpenCSVSerde
- Header skipped using TBLPROPERTIES
- Manual clean up to avoid parsing errors

QuickSight:

- Dataset: Loaded from Athena via SPICE (on-demand)
- Visuals: Horizontal bar chart
- Filters: Facility name filter control (drop-down)
- Sorting: Readmission count descending
- Data Labels: On

- Color: Group/color by facility
- Title/Subtitles added for professional polish

IAM Role:

- Temporary: AWSGlueServiceRole-cms-readmission (can be deleted)

S3:

- Bucket: healthcare-readmission-data-shazi
- Athena result output verified and optionally cleaned

Billing:

- Verified under Billing Console: No unexpected charges
- Free Tier status confirmed
- (Optional) Budget alert set at \$0.01 for future monitoring

Final Status:

- [x] All services stopped or cleaned
- [x] Visuals saved or exported
- [x] Environment safe to delete or preserve