

## Health Facility Metric ETL Design

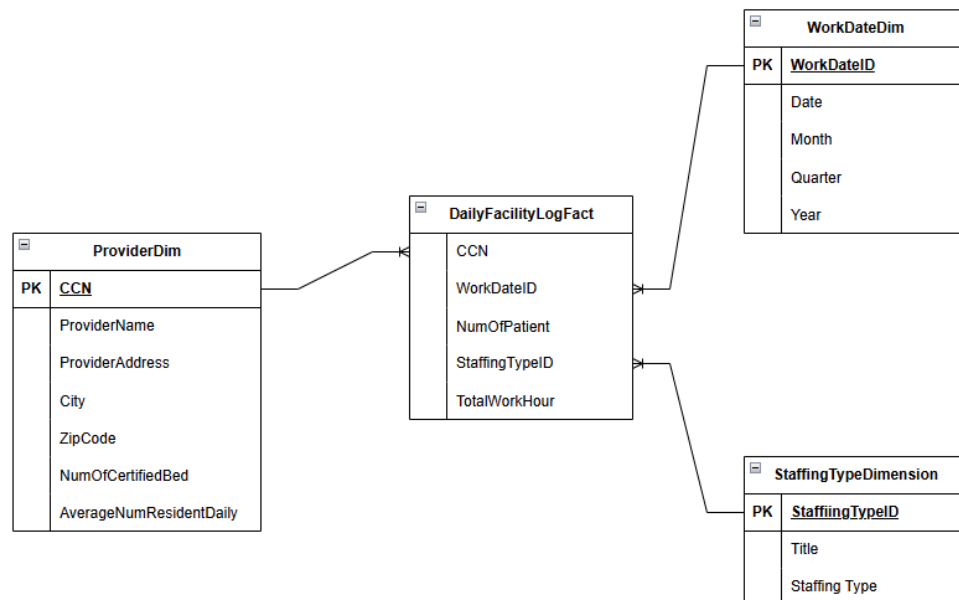
### Objective

- Develop end to end pipeline starting from data collection, transformation, and presentation using BI tool
- Develop presentation layer providing required metrics for analysis

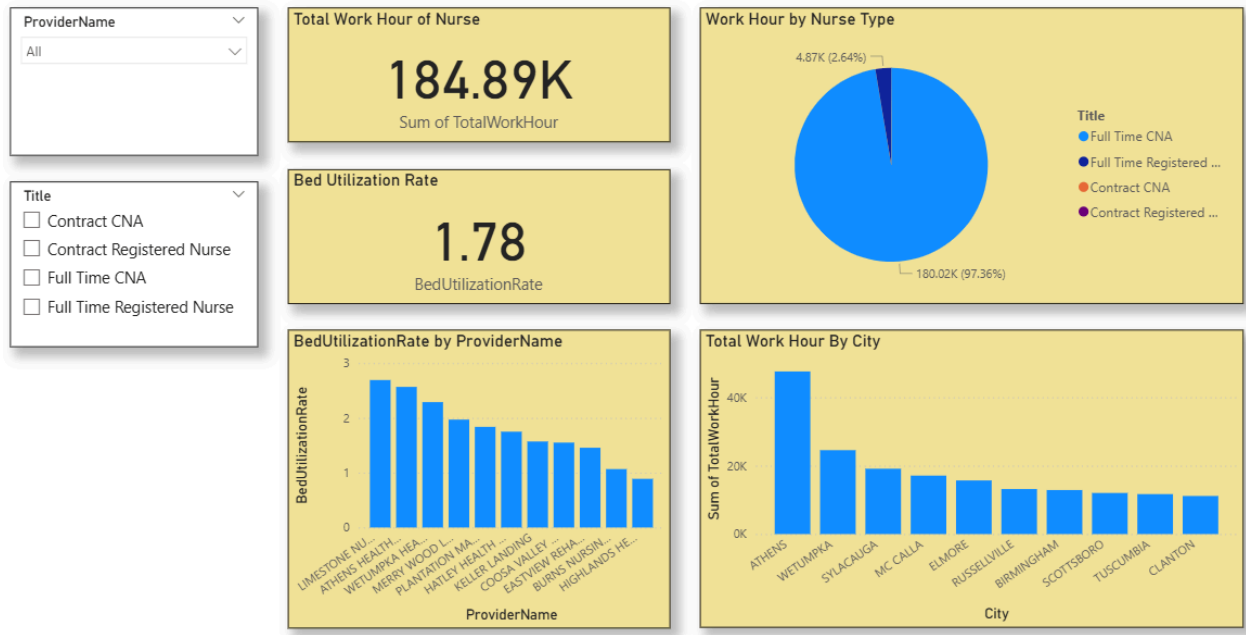
### Metrics Output

- Total hours worked by nurses per hospital, state
- Bed utilization rates by hospital and department
- Total work hours by nurse type, hospital, state

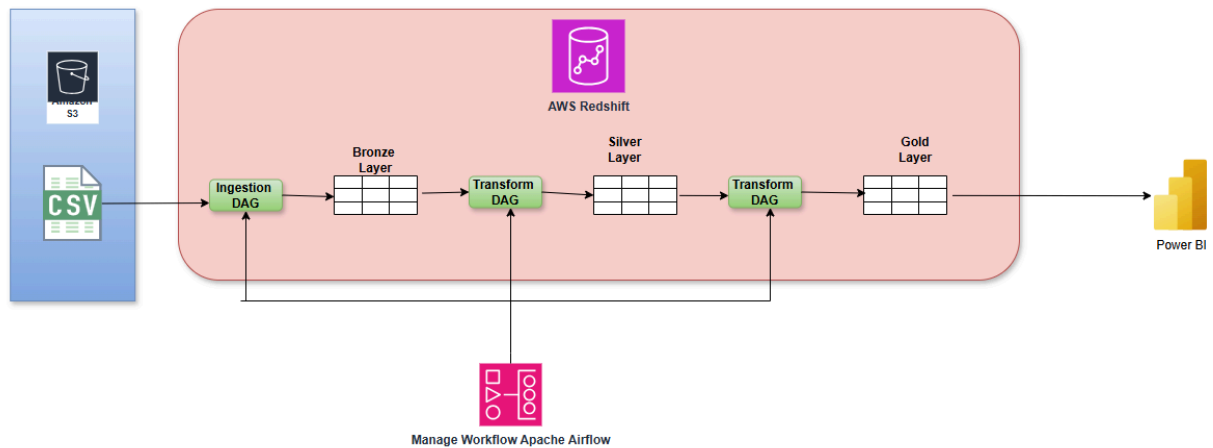
### Data Model



## Dashboard Mockup



## ETL System Design



### Data Source Transformation Mapping

Table Source	Fields	Target Table	Fields	Note
PBJ Daily Nursing Staffing	PROVNUM	DailyFacilty LogFact	CCN	PROVNUM and CCN are ProviderID
	WorkDate		WorkDateID	
	MDSensus		NumOfPatient	
	NA		StaffingType	This is field that contains this foreign key values as follow: 1 → Full Time RN 2 → Contract RN 3 →Full Time CNA 4 →Contract CNA
	Hrs_RNDON_emp		TotalWorkHour	This is the total work hours by full time registered nurse by provider. Appended to new target as new row to create log.
	Hrs_RNDON_ctr		TotalWorkHour	This is the total work hours by contract registered nurse by provider. Appended to new target as new row to create log.
	Hrs_CNA_emp		TotalWorkHour	This is the total work hours by full time CNA by provider. Appended to new target as new row to create log.

	Hrs_CNA_ctr		TotalWorkHour	This is the total work hours by contract CNA by provider. Appended to new target as new row to create log.
NHProviderInfoOct2024	CMS Certification Number (CCN)	ProviderDim	CMS Certification Number (CCN)	
	Provider Name		Provider Name	
	Provider Address		Provider Address	
	City/Town State		City/Town State	
	ZIP Code		ZIP Code	
	Number of Certified Beds Average		NumOfCertified Bed	
	Number of Residents per Day		AverageNumResidentDaily	