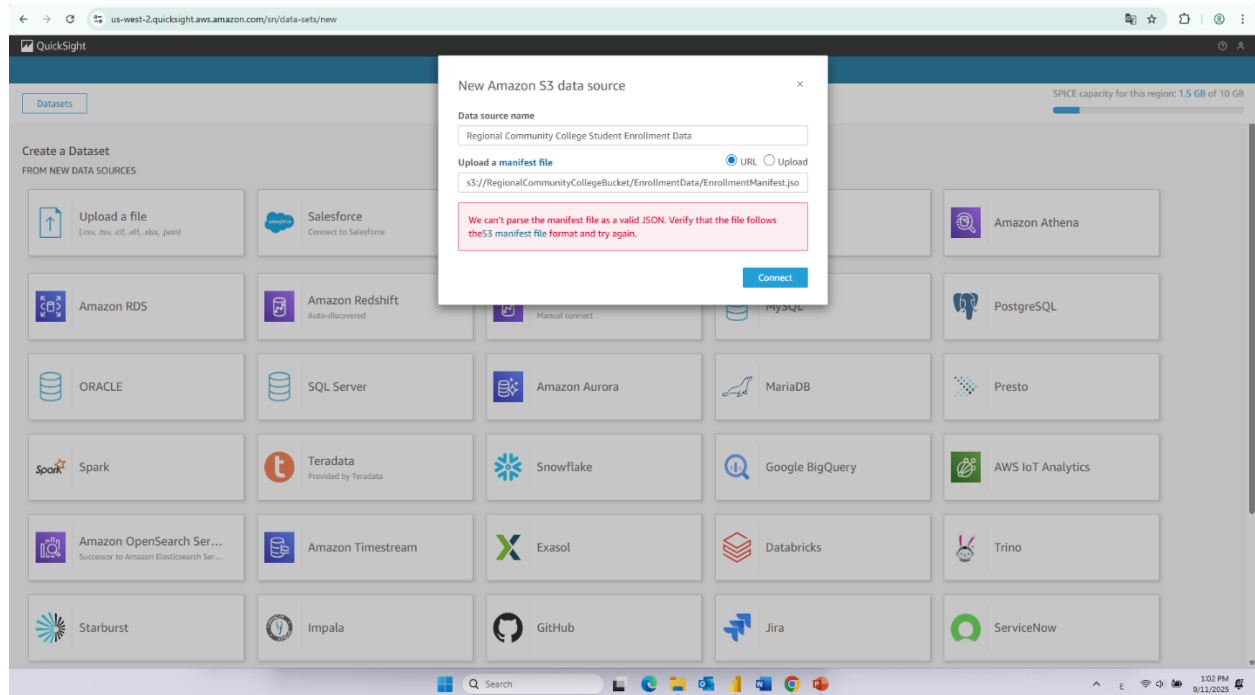


Project Story

Student Enrollment & Satisfaction Analysis

Project Introduction

This project analyzes student enrollment data from Regional Community College to identify insights about students, courses, and professors. The goal is to improve professor evaluations while keeping course costs under control.



Attempted to create dataset Regional Community College Student Enrollment Data using manifest s3://RegionalCommunityCollegeBucket/EnrollmentData/EnrollmentManifest.json. QuickSight returned an access/bucket-not-found error *screenshot attached*. Canceled creation and confirmed dataset not present in Datasets list.

Dataset Preparation

- Renamed 'HomeOfOrigin' to 'NationalOrigin' with clear description.
- Added calculated field 'Student Type' (Youth vs. Adult Continuing Education).
- A weekly update schedule has been set for the Dataset, starting at 12:00 AM next Sunday, taking into account the local time zone.

QuickSight

Datasets

Q - Student Enrollment

Summary Refresh Permissions Usage

ADD NEW SCHEDULE REFRESH NOW

Email owners when a refresh fails

Schedules

Refresh type	Occurrence	Start time	Timezone	Actions
Full refresh	Weekly (Sun)	00:00	Asia/Riyadh	

History

Show times within Last 90 days with status of All

Refresh start	Status	Duration	Skipped rows	Ingested rows	Dataset rows	Refresh type
September 11, 2025 at 1:26 PM GMT+3	Completed	15 seconds	0	7306	7306	Manual, Full refresh
September 11, 2025 at 1:16 PM GMT+3	Completed	25 seconds	0	7306	7306	Manual, Initial

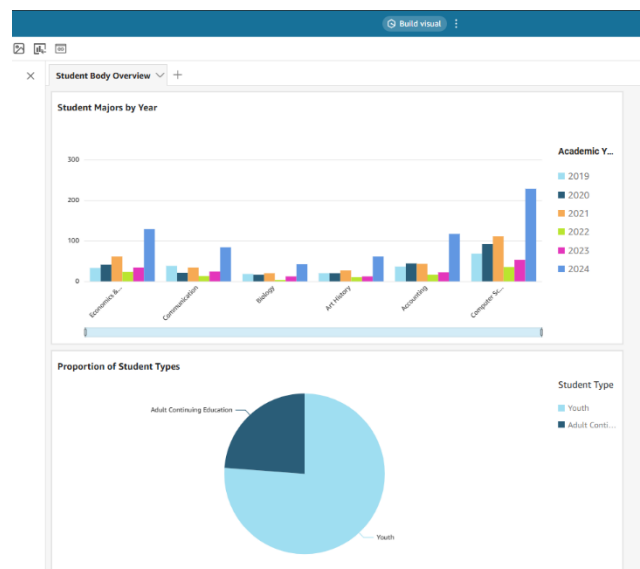
1-2 of 2

Initial Analysis (Student Body Overview)

-**Visual 1:** “Student Majors by Year” shows distribution of students by major and academic year.

-**Visual 2:** “Proportion of Student Types” compares Youth vs. Adult Continuing Education.

→ Together, these visuals provide a clear overview of the student body demographics.



Topic & Verified Questions

-Created a new “Topic: Regional Community College Student Data”.

-Defined Named Entities: Student Details, Course Details, Professor Evaluation.

-Verified key business questions, such as:

Q1. Which professors have the best evaluations?

Q2. Which courses are the most expensive??

QuickSight

Regional Community College Student Data

Add a question about Regional Community College Student Data

All topics

Regional Community College Student Data

Summary Data User Activity Suggested Questions Custom Instructions

DATASETS DATA FIELDS NAMED ENTITY

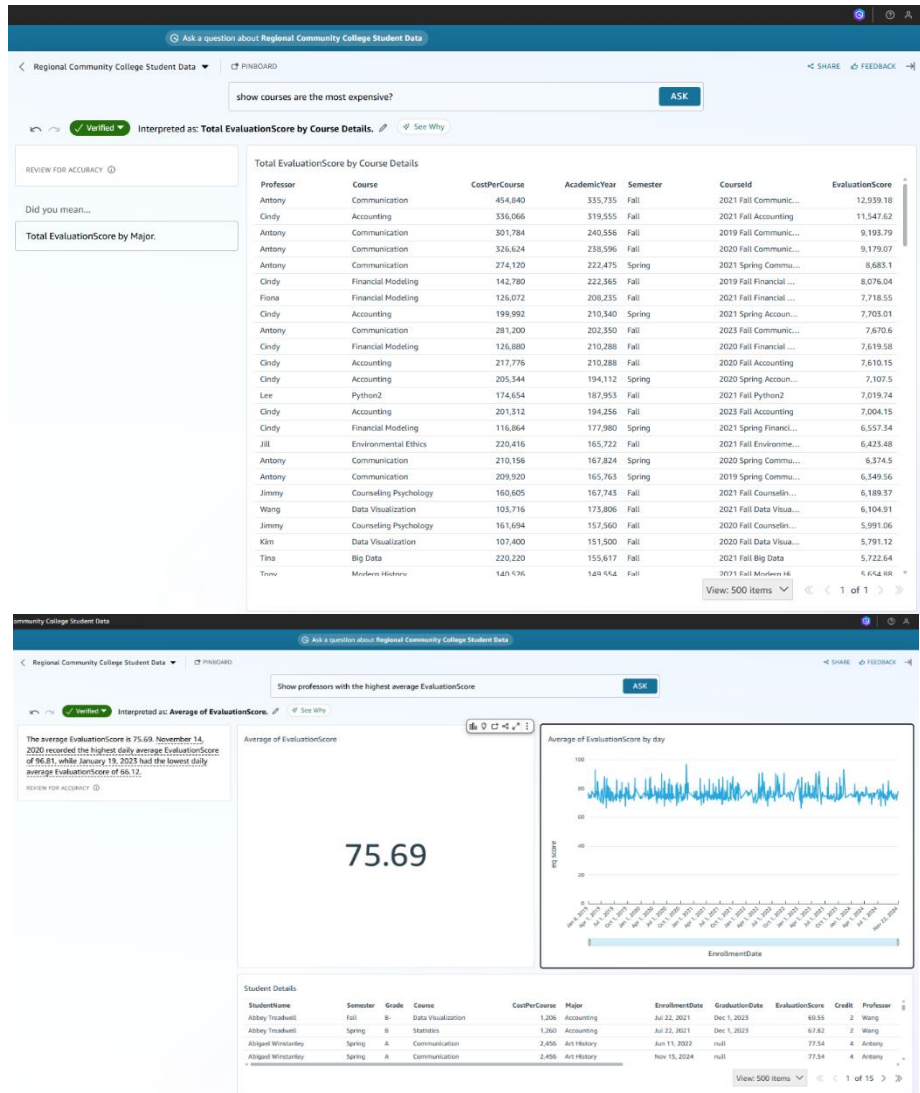
Dataset: Q Student Enrollment

ADD NAMED ENTITY

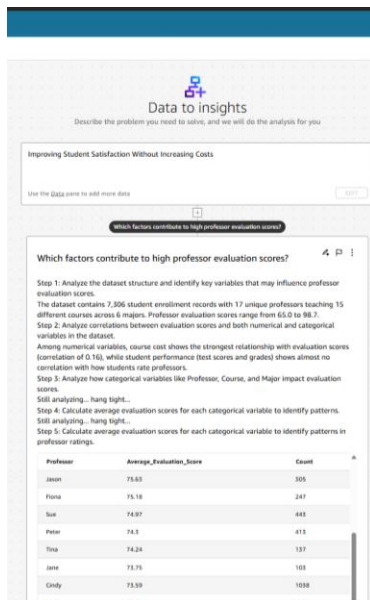
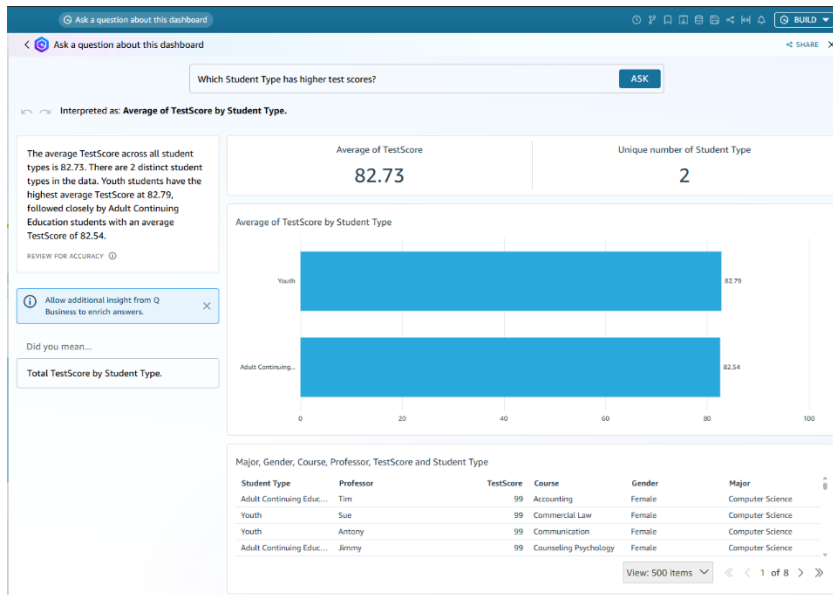
Named Entities are groupings of data fields that collectively represent a business concept and are used to enhance the Q&A experience. [Learn more](#)

Rank	Friendly name	Synonyms	Details
#1	Student Details	Add alternate names for field	StudentName, Semester, Grade, Course, CostPerCourse, Major, EnrollmentDate, GraduationDate, EvaluationScore, Credit, Professor, Age, AcademicYear, CourseId, StudentId, TestScore, StudentClassification
#2	Course Details	Add alternate names for field	Professor, Course, CostPerCourse, AcademicYear, Semester, CourseId
#3	Professor Evaluation	Add alternate names for field	Professor, AcademicYear, Course, Semester, StudentName, EvaluationScore

Using QuickSight Q, verified answers were obtained for key questions: **'Which instructors got the best average evaluations?'** and **'Which courses are the most expensive?'**. Each answer was carefully checked for accuracy, ensuring that the results reflect the highest average evaluation scores and the highest course costs, and then marked as Verified for reliability in further analysis and dashboards.

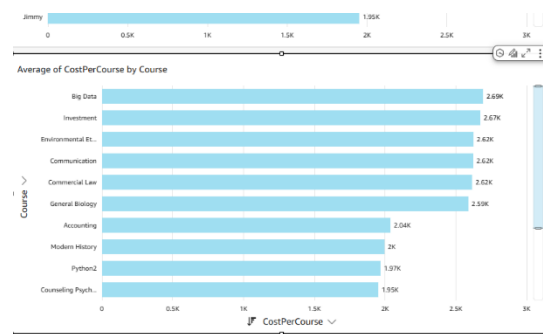
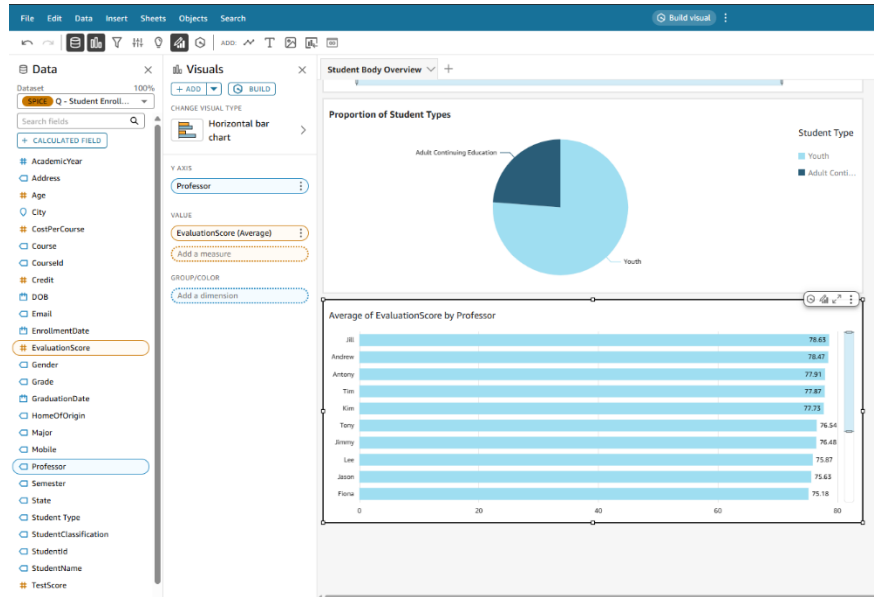


The 'Improving Student Satisfaction Without Increasing Costs' scenario was created using all relevant dashboard visuals. The starter question and a series of follow-up questions (Threads) were added to explore factors affecting professor evaluation scores and to develop actionable recommendations.



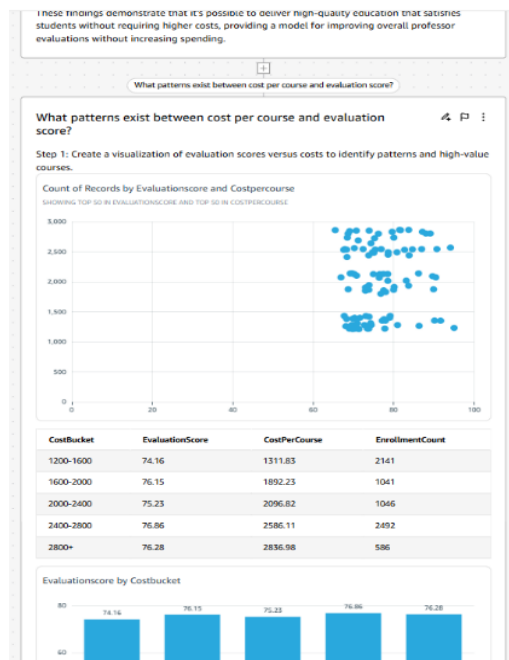
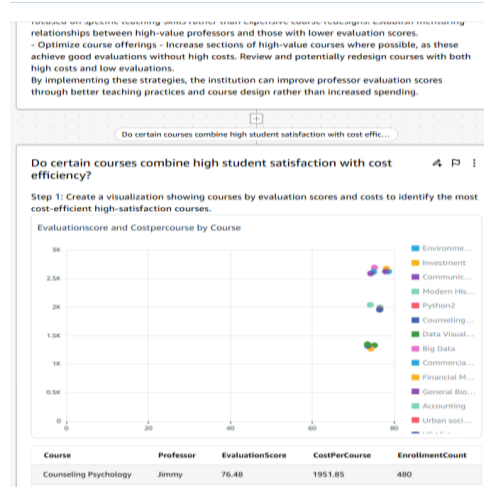
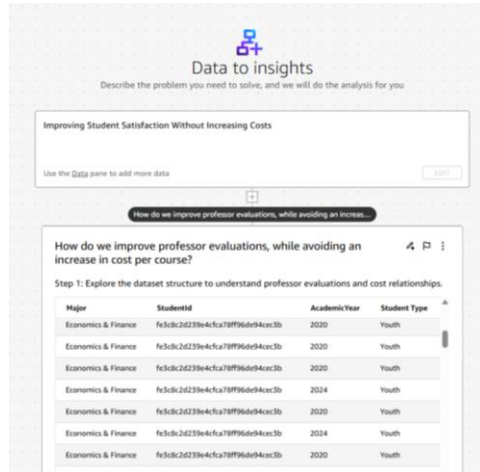
Extended Analysis & Scenarios

- Additional visuals created:
 - Professors with best evaluations
 - Courses with best evaluations
 - Professors with highest costs
 - Courses with highest costs
 - Built scenario: “Improving Student Satisfaction Without Increasing Costs”
- This step allowed multi-step reasoning with follow-up questions to explore data.



Data Story Conclusion

- Focus on “professors with high evaluation scores” and share best practices across faculty.
- Avoid increasing costs by reallocating teaching resources instead of raising course prices.
- Monitor correlations between “course costs and student satisfaction” to ensure balance.
- Invest in targeted training for professors teaching high-demand but lower-rated courses.



jump significantly from the lowest cost bracket without reaching the highest cost levels

- Professor quality trumps cost: High-value professors achieve excellent results at moderate costs

These findings suggest that improving professor evaluations doesn't necessarily require increasing costs. Instead, focusing on teaching approaches used by high-value professors and expanding successful moderate-cost courses could be more effective strategies.

Which majors show the strongest correlation with professor evaluations?

Step 1: Analyze major-specific evaluation patterns to identify which academic disciplines show the strongest correlation with professor ratings.

Major	EvaluationScore	CostPerCourse	StudentCount	EvalScoreStdDev
Biology	76.55	2069.81	69	6.73
Art History	75.88	2061.57	89	6.22
Economics & Finance	75.87	2070.03	192	6.47
Communication	75.69	2039.57	130	6.29
Computer Science	75.52	2070.06	359	6.24
Accounting	75.39	2061.96	161	6.22

Evaluationscore by Major



Summary

This project demonstrates how Amazon QuickSight can be used to prepare data, generate insights, verify business questions, and create interactive scenarios. The final Data Story connects data to actionable recommendations for the college's leadership.

Conclusion & Project Link

This project provided me with valuable hands-on experience in preparing datasets, building analyses, and creating data stories using Amazon QuickSight. The step-by-step process enhanced my understanding of how to transform raw data into meaningful business insights and actionable recommendations.

For further review and exploration, the project can be accessed using the following link:

[[Click Here](#)].

Submitted By: Hajer Abdullah.

Date: 17 Sep 2025