

Data to Dashboards

Data to Dashboard - Real-time Data Processing and Analysis

Prerequisites

Introduction

Ingesting Real-time Data Streams

Data Processing using Amazon Managed Apache Flink

Overview

Preparation

Run Studio Notebook

Deliver Processed Data using Amazon Data Firehose

Overview

Deliver data

Access and Validate processed data

Visualize Real-time data using Amazon QuickSight

Overview - Two Options

Preparation

Build Dashboard

Conclusion & Next Steps

AWS account access

Open AWS console (us-east-1)

Get AWS CLI credentials

Exit event

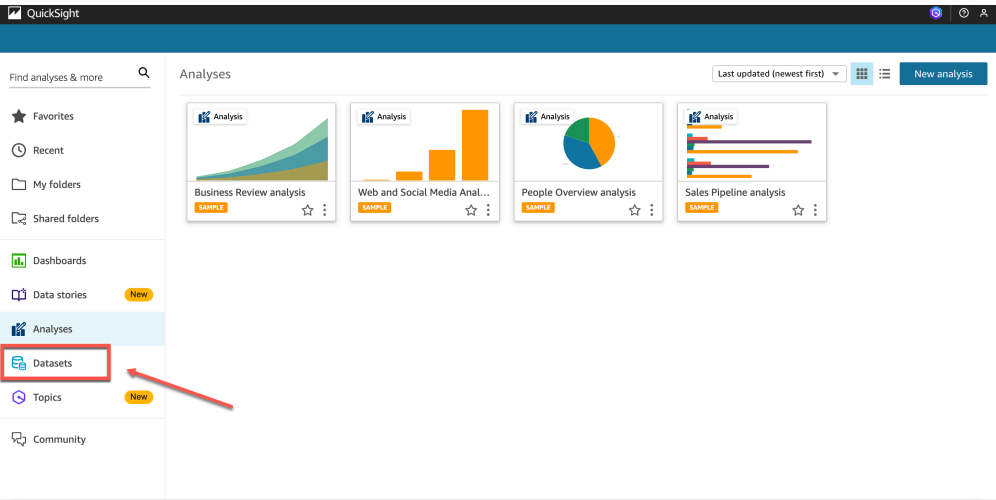
Event dashboard > Visualize Real-time data using Amazon QuickSight > Build Dashboard

# Build Dashboard

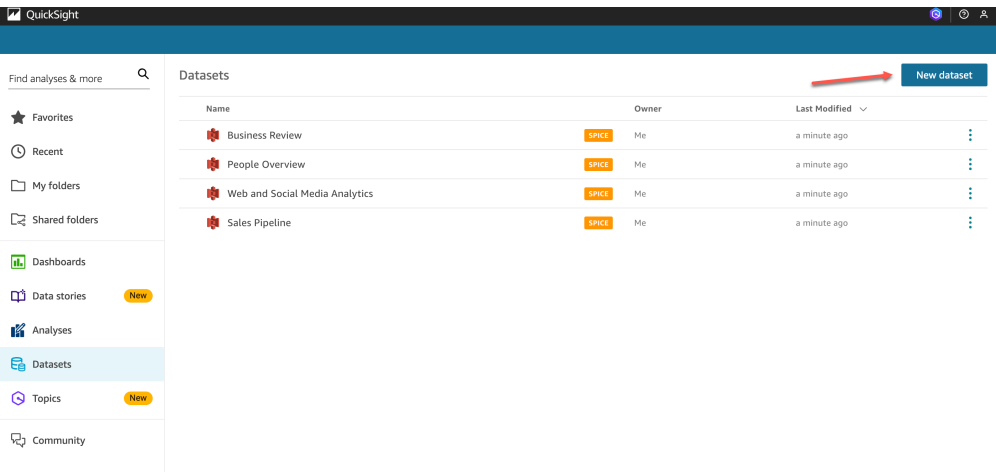
Now that we have access to Amazon QuickSight, let's go ahead and create the required datasource and dataset to build dashboard.

## Create Athena Datasource

1. From QuickSight main page click on **Datasets**.

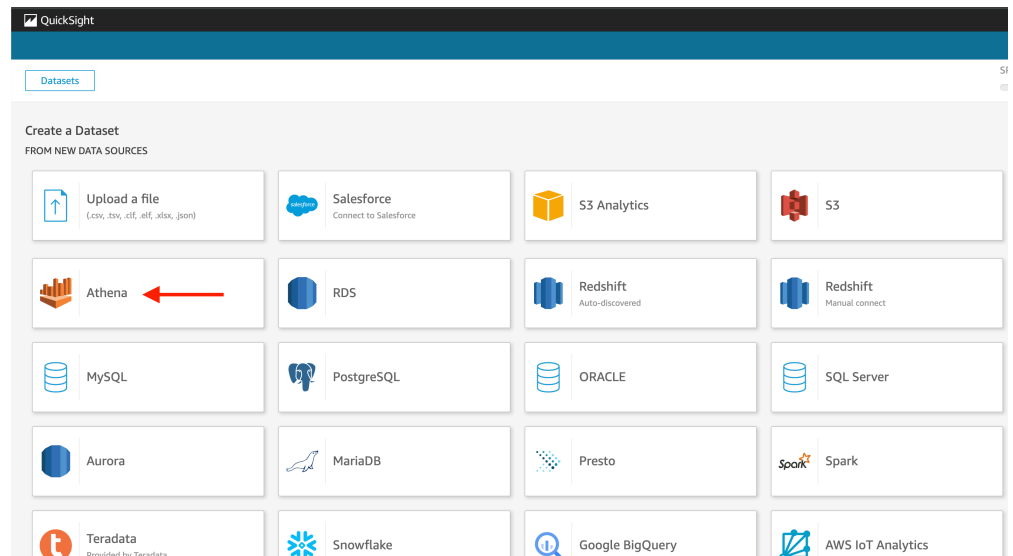


2. From the Datasets screen, click on **New Dataset**:

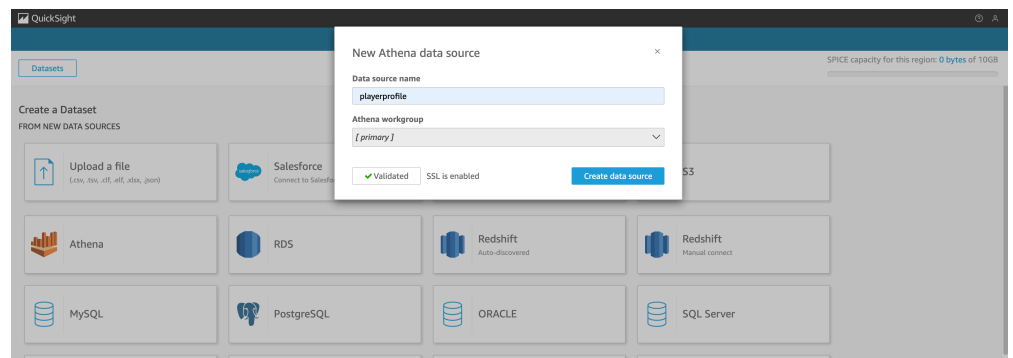


Create Athena Datasource as shown below:

3. Click on Athena

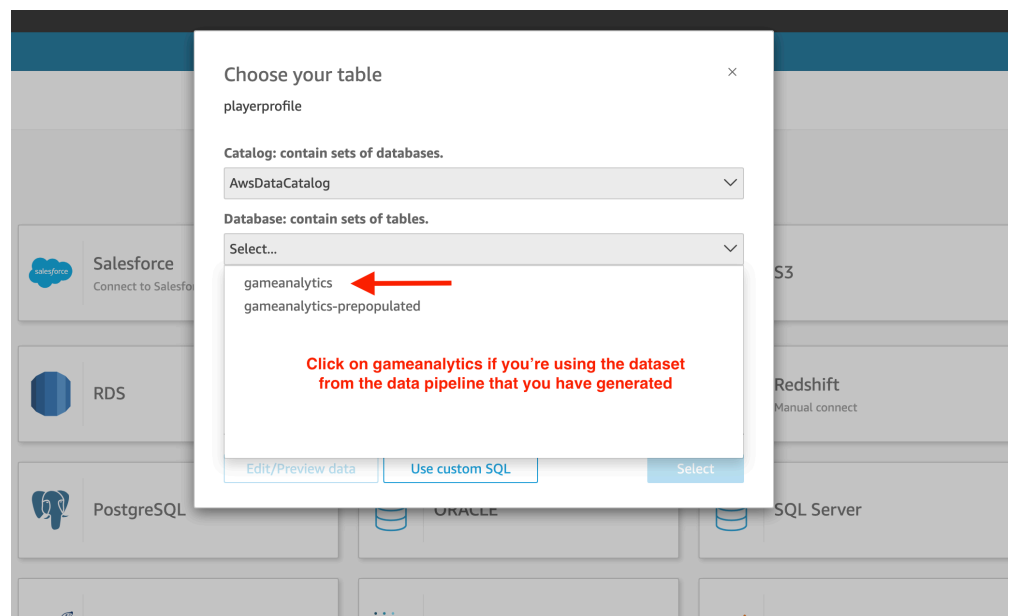


3a. Type in **playerprofile** and click on **Validate Connection --> Validated**



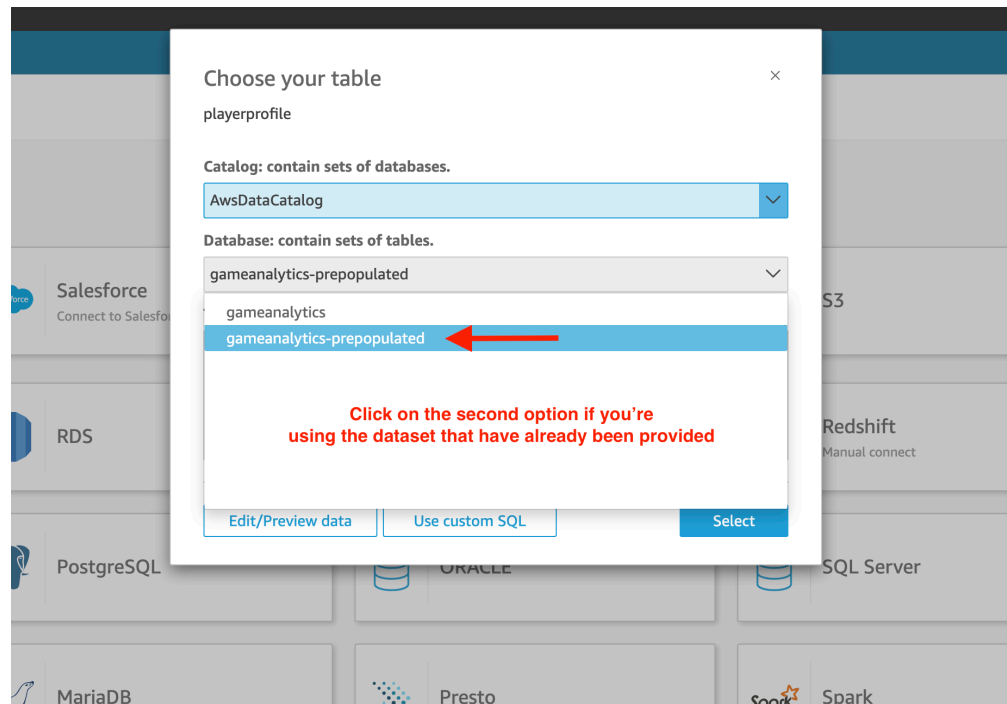
#### OPTION 1

3b. Click on **gamesanalytics** - if you're using the data from the data pipeline that you have generated.



#### OPTION 2

3c. Click on **gamesanalytics-prepopulated** - if you're using prepopulated data.

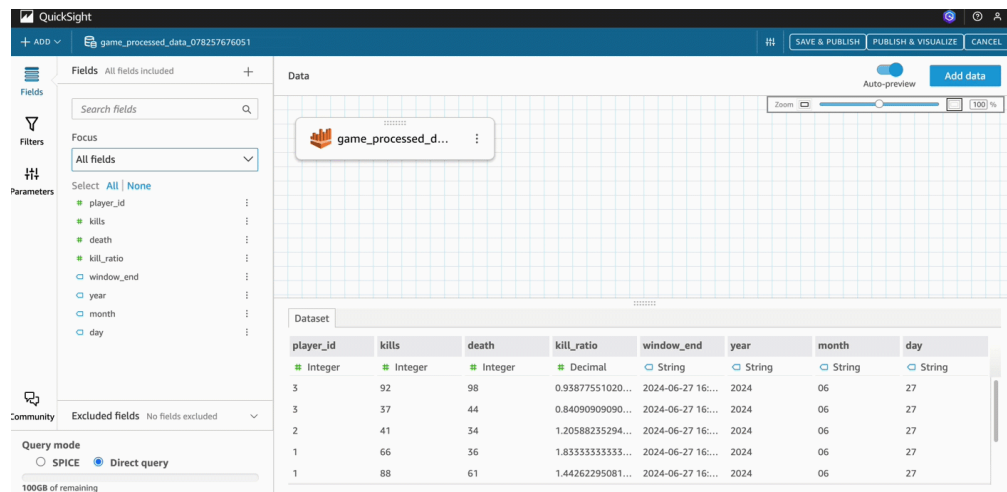


Click on the table called **prepopulateddata\_XXXXXXXXXX**

#### OPTION 1 & 2

3d. Once you have selected your table, click on **Edit/Preview data**

4. Click on Update the date type for column **window\_end** from String to Date.



## Create QuickSight Dashboard

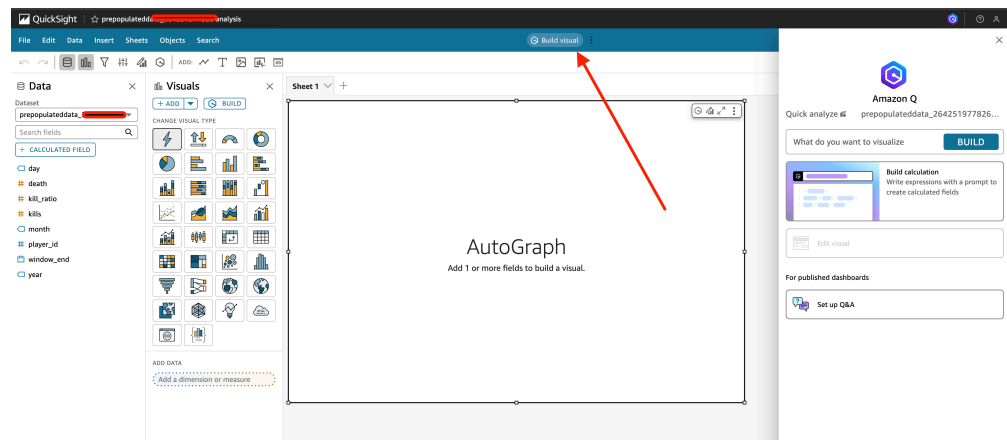
1. Click on **PUBLISH & VISUALIZE** to create an Analysis to start building dashboard.

The screenshot displays the QuickSight interface. On the left, the 'Fields' pane shows a list of dimensions: player\_id, kills, death, kill\_ratio, window\_end, year, month, and day. The 'Filters' pane is empty. The 'Parameters' pane is also empty. The 'Community' pane shows 'Excluded fields' with 'No fields excluded'. The 'Query mode' section has 'Direct query' selected. The main area shows a data visualization titled 'game\_processed\_data\_078257676051'. The visualization is a bar chart with a zoom slider set to 100%. The data is presented in a table format below the chart.

player_id	kills	death	kill_ratio	window_end	year	month	day
Integer	Integer	Integer	Decimal	Date	String	String	String
3	92	98	0.93877551020...	2024-06-27T16:...	2024	06	27
3	37	44	0.8409090909090...	2024-06-27T16:...	2024	06	27
2	41	34	1.20588235294...	2024-06-27T16:...	2024	06	27
1	66	36	1.83333333333...	2024-06-27T16:...	2024	06	27
2	88	61	1.44262295081...	2024-06-27T16:...	2024	06	27

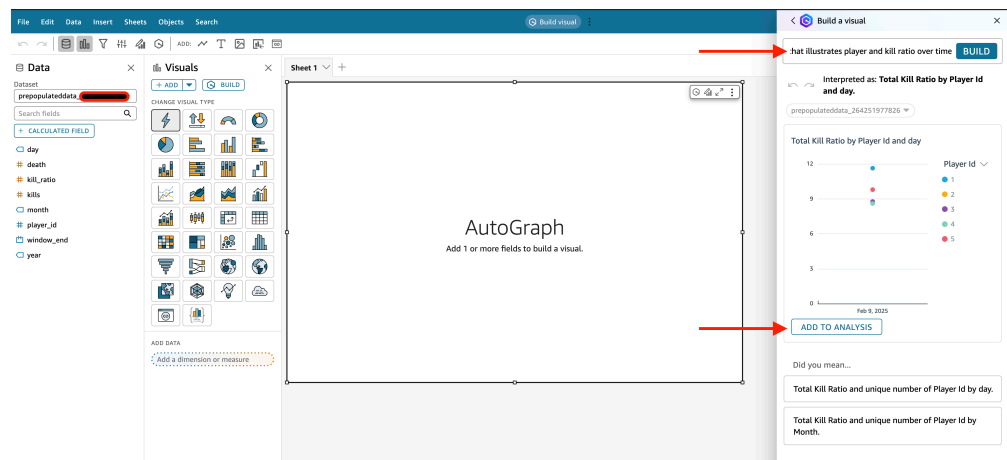
2. Let's build a quick line chart that shows the **Kill Ratio** for each player.

### 3. Click on **Build visual**

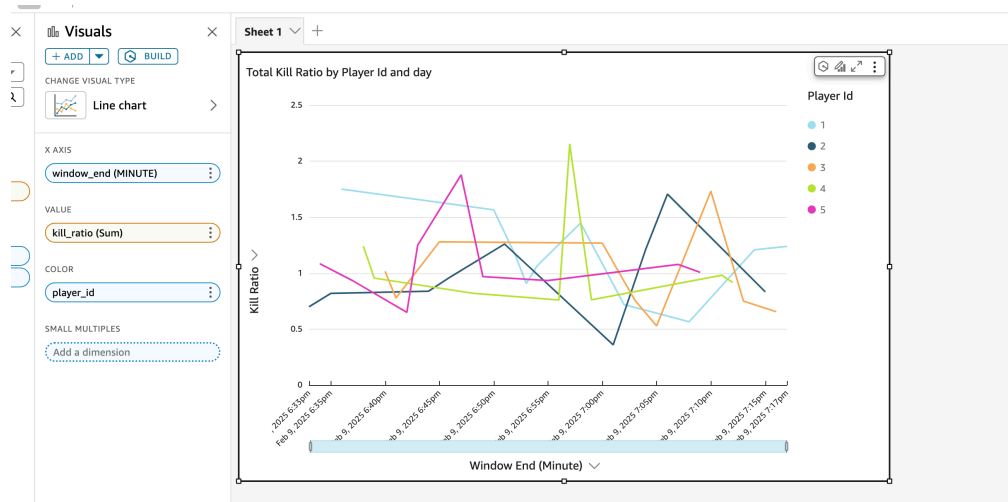
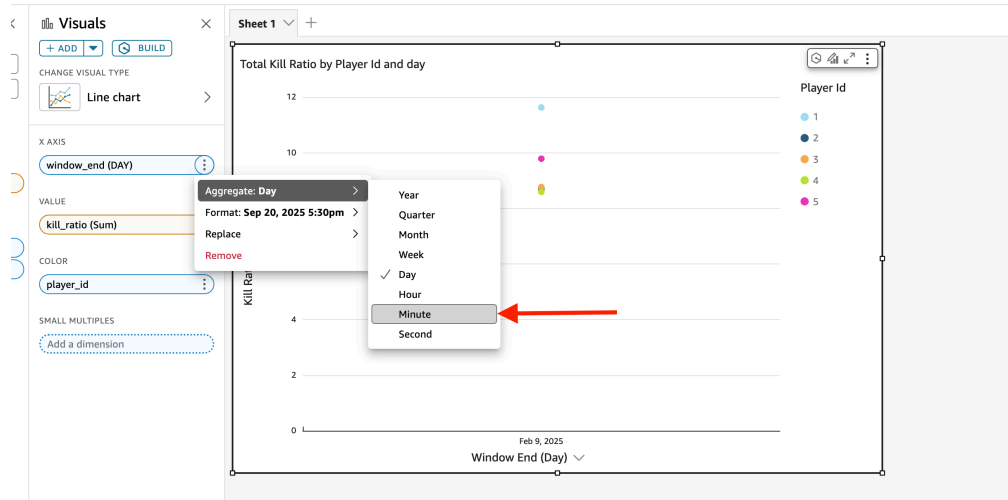


4. Type in: Create a line graph that illustrates player and kill ratio over time and click on **Build**

5. Click on **Add to Analysis**

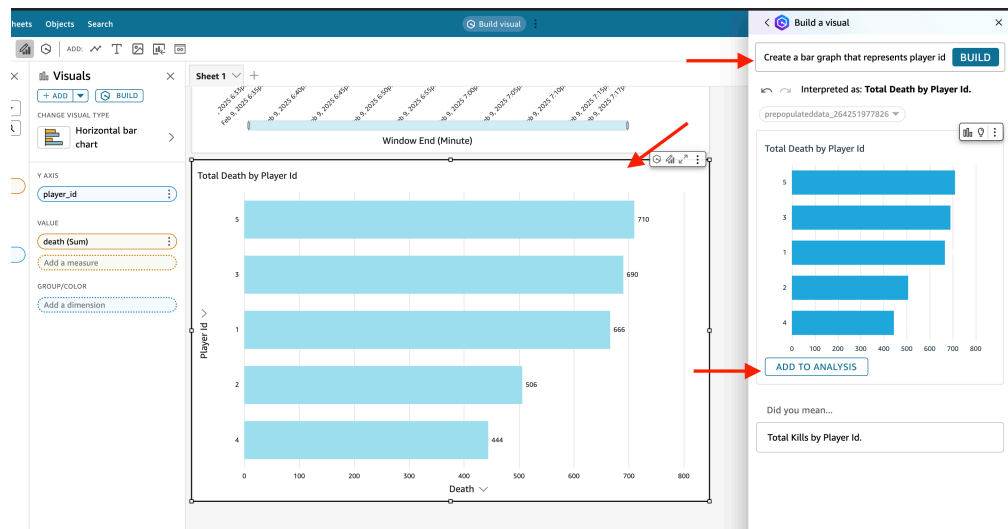


### 6. Change window\_end on the x-axis to aggregate by minute



7. We can also create a bar graph that represents player\_id and their number of deaths

Type in: Create a bar graph that represents player id and their deaths

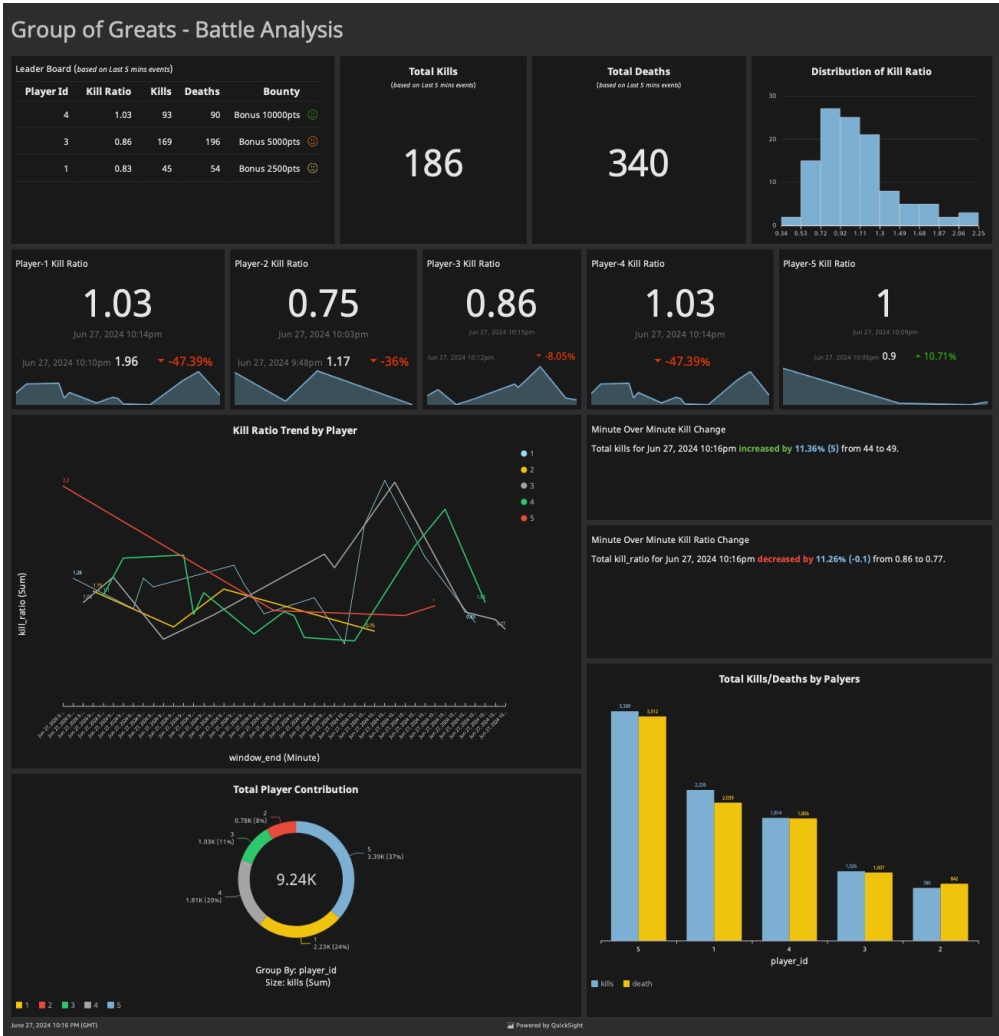


## QuickSight Example Dashboard

Below is a **Sample QuickSight Dashboard** with key insights:

- **Player Leaderboard:** This chart updates near real-time to show palyer with highest kill ratio based on last 5mins game data.

- **Kill Ratio Distribution:** This chart provides the distribution of kill ratio for a team and based in this game admins can provide additional power boosters or options to make the game engaging.
- We can also monitor **Player Performance** and **Player Contribution**



# Conclusion

In this module, you gained hands-on experience using Amazon QuickSight and building visuals and dashboards that can be leveraged for decision making.