CUDOS is a prebuilt AWS QuickSight dashboard that shows your cost, usage, and savings insights using data from the AWS Cost & Usage Report (CUR). It works by pulling CUR data from S3, processing it via Glue, querying it with Athena, and visualizing it in QuickSight. You deploy it using a CloudFormation **stack**, which auto-sets up everything — S3, Glue, Athena, and dashboards — in one go. It helps you easily spot cost anomalies, top services, and optimization opportunities. No coding needed — just launch and use.

https://catalog.workshops.aws/awscid/en-US/dashboards/foundational/cudos-cid-kpi/deploy

Athena Query

```
CREATE OR REPLACE VIEW cid_data_export.vw_cost31 AS
SELECT
  CAST(line_item_usage_account_id AS VARCHAR) AS account_id,


  -- Standardized service name
  COALESCE(
   CASE
     WHEN line_item_product_code = 'AmazonEC2' THEN 'Amazon EC2'
     WHEN line_item_product_code = 'AmazonRDS' THEN 'Amazon RDS'
     WHEN line_item_product_code = 'AWSELB' THEN 'Elastic Load Balancing'
     WHEN line_item_product_code = 'AWSConfig' THEN 'AWS Config'
     WHEN line_item_product_code = 'AmazonCloudWatch' THEN 'Amazon
CloudWatch'
     WHEN line_item_product_code = 'AmazonVPC' THEN 'Amazon VPC'
     WHEN line_item_product_code = 'AmazonS3' THEN 'Amazon S3'
     WHEN line_item_product_code = 'AmazonDynamoDB' THEN 'Amazon DynamoDB'
     WHEN line_item_product_code = 'AmazonRedshift' THEN 'Amazon Redshift'
     WHEN line_item_product_code = 'AmazonEKS' THEN 'Amazon EKS'
     WHEN line_item_product_code = 'AmazonES' THEN 'Amazon OpenSearch'
     WHEN line_item_product_code = 'AmazonGuardDuty' THEN 'Amazon GuardDuty'
     WHEN line_item_product_code = 'AWSGlue' THEN 'AWS Glue'
     WHEN line_item_product_code = 'AmazonQuickSight' THEN 'Amazon QuickSight'
     ELSE line_item_product_code
   END,
   product['product_name'],
   product['productName'],
```

```sql
    'unknown'
  ) AS service,


  -- Region
  COALESCE(product['region_code'], product_region_code, 'unknown') AS region,


  -- Resource type logic
  CASE
    WHEN COALESCE(product['product_name'], product['productName'], 'unknown') =
'Amazon Virtual Private Cloud'
        AND line_item_usage_type LIKE '%PublicIPv4%' THEN 'Public/Elastic IPs'
    WHEN COALESCE(product['product_name'], product['productName'], 'unknown') =
'Amazon Virtual Private Cloud'
        AND line_item_usage_type LIKE '%TransitGateway%' THEN 'TransitGateway'
    WHEN COALESCE(product['product_name'], product['productName'], 'unknown') =
'Amazon Virtual Private Cloud'
        AND line_item_usage_type LIKE '%VpcEndpoint%' THEN 'VpcEndpoint'
    ELSE COALESCE(NULLIF(product_product_family, ''), 'unknown')
  END AS resource_type,


  -- Product family
  COALESCE(NULLIF(product_product_family, ''), 'unknown') AS product_family,


  -- Full usage type
  line_item_usage_type AS instance_type,


  -- Resource ID
  line_item_resource_id AS resource_id,


  -- Smart instance size extraction
  CASE
    WHEN line_item_product_code = 'AmazonEC2' AND
REGEXP_LIKE(line_item_usage_type, '.*[:/]([a-z0-9.]+)$')
```

```sql
        AND REGEXP_LIKE(line_item_usage_type, '.*(t|m|c|r|i|x|z|a)[0-9].*\..*') THEN
      REGEXP_EXTRACT(line_item_usage_type, '.*[:/]([a-z0-9.]+)$')


    WHEN line_item_product_code = 'AmazonRDS' AND
REGEXP_LIKE(line_item_usage_type, '.*[:/](db\.[a-z0-9.]+)$') THEN
      REGEXP_EXTRACT(line_item_usage_type, '.*[:/](db\.[a-z0-9.]+)$')


    WHEN line_item_product_code = 'AmazonES' AND
REGEXP_LIKE(line_item_usage_type, '.*[:/]([a-z0-9.]+\.elasticsearch)$') THEN
      REGEXP_EXTRACT(line_item_usage_type, '.*[:/]([a-z0-9.]+\.elasticsearch)$')


    ELSE NULL
  END AS instance_size,


  -- Created by tag
  COALESCE(resource_tags['aws_created_by'], 'N/A') AS created_by,


  -- Corrected Custom Tags
  COALESCE(resource_tags['user_cost_center'], 'N/A') AS cost_center,
  COALESCE(resource_tags['user_owner'], 'N/A') AS owner_tag,
  COALESCE(resource_tags['user_name'], 'N/A') AS name_tag,
  COALESCE(resource_tags['user_team'], 'N/A') AS team_tag,


  -- Charge type
  line_item_line_item_type AS charge_type,


  -- Cost
  ROUND(COALESCE(line_item_unblended_cost, 0.0), 5) AS total_cost,


  -- Date fields
  DATE(line_item_usage_start_date) AS usage_start_date,
  DATE(line_item_usage_end_date) AS usage_end_date
```
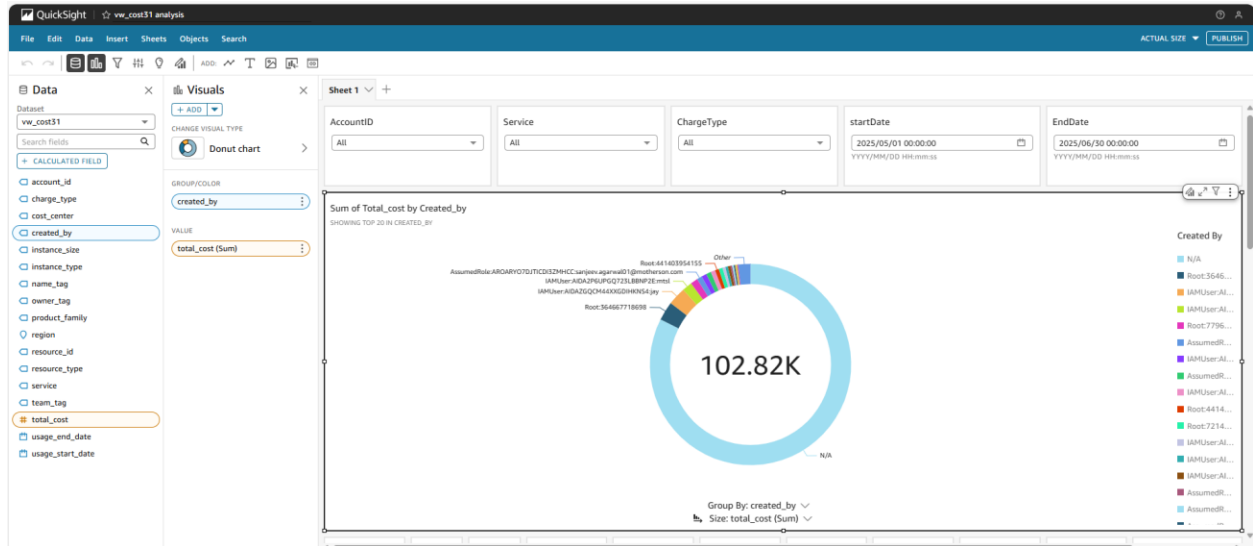
```
FROM cid_data_export.cur2
WHERE
  line_item_line_item_type <> 'Tax';
```

Screenshots of Quicksight dashboard

File Edit Data Insert Sheets Objects Search

ACTUAL SIZE PUBLISH

ADD:

Data ✕

Dataset
vw_cost31

Search fields

+ CALCULATED FIELD

- account_id
- charge_type
- cost_center
- created_by
- instance_size
- instance_type
- name_tag
- owner_tag
- product_family
- region
- resource_id
- resource_type
- service
- team_tag
- total_cost
- usage_end_date
- usage_start_date

Visuals ✕

+ ADD ▼

CHANGE VISUAL TYPE

▦ Table ›

GROUP BY

Add a dimension

VALUE 13

- account_id
- region
- service
- resource_id
- cost_center
- name_tag
- owner_tag
- created_by
- team_tag
- usage_start_date
- usage_end_date
- total_cost
- charge_type

Add a measure

Sheet 1 ▾ +

AccID	Region	Service	ResourceID	Team	NameTag	Costcenter	Owner	CreatedBy	StartD...	EndDate	ChargeType	Total_cost
All ▾	All ▾	All ▾	Enter value	All ▾	All ▾	All ▾	All ▾	All ▾	2... 📅	2... 📅	All ▾	102,816.59
									YYYY/MM/ HH:mm:ss	YYYY/MM/ HH:mm:ss		

Account_id, Region, Service, Resource_id, Cost_center, Name_tag, Owner_tag, Created_by, Team_tag, Usage_start_date, Usage_end_date, Total_cost, and Charge_type

account_id	region	service	resource_id	cost_center	name_tag	owner_tag	created_by	team_tag	usage_start_date	usage_end_date	total_cost	charge_type
018958528302	ap-northeast-1	AWS Glue	null	N/A	N/A	N/A	N/A	N/A	May 2, 2025 12:00am	May 2, 2025 12:00am	0	Usage
018958528302	ap-northeast-1	AWS Glue	null	N/A	N/A	N/A	N/A	N/A	May 3, 2025 12:00am	May 3, 2025 12:00am	0	Usage
018958528302	ap-northeast-1	AWS Glue	null	N/A	N/A	N/A	N/A	N/A	May 7, 2025 12:00am	May 7, 2025 12:00am	0	Usage
018958528302	ap-northeast-1	AWS Glue	null	N/A	N/A	N/A	N/A	N/A	May 8, 2025 12:00am	May 8, 2025 12:00am	0	Usage
018958528302	ap-northeast-1	AWS Glue	null	N/A	N/A	N/A	N/A	N/A	May 12, 2025 12:00am	May 12, 2025 12:00am	0	Usage
018958528302	ap-northeast-1	AWS Glue	null	N/A	N/A	N/A	N/A	N/A	May 13, 2025 12:00am	May 13, 2025 12:00am	0	Usage
018958528302	ap-northeast-1	AWS Glue	null	N/A	N/A	N/A	N/A	N/A	May 21, 2025 12:00am	May 21, 2025 12:00am	0	Usage
018958528302	ap-northeast-1	AWS Glue	null	N/A	N/A	N/A	N/A	N/A	May 23, 2025 12:00am	May 23, 2025 12:00am	0	Usage
018958528302	ap-northeast-1	AWS Glue	null	N/A	N/A	N/A	N/A	N/A	Jun 5, 2025 12:00am	Jun 5, 2025 12:00am	0	Usage
018958528302	ap-northeast-1	AWS Glue	null	N/A	N/A	N/A	N/A	N/A	Jun 7, 2025 12:00am	Jun 7, 2025 12:00am	0	Usage
018958528302	ap-northeast-1	AWS Glue	null	N/A	N/A	N/A	N/A	N/A	Jun 20, 2025 12:00am	Jun 20, 2025 12:00am	0	Usage
018958528302	ap-northeast-1	AWS Glue	null	N/A	N/A	N/A	N/A	N/A	Jun 22, 2025 12:00am	Jun 22, 2025 12:00am	0	Usage
018958528302	ap-northeast-1	AWSCloudT...	null	N/A	N/A	N/A	N/A	N/A	May 1, 2025 12:00am	May 1, 2025 12:00am	0	Usage
018958528302	ap-northeast-1	AWSCloudT...	null	N/A	N/A	N/A	N/A	N/A	May 1, 2025 12:00am	May 1, 2025 12:00am	0	Usage
018958528302	ap-northeast-1	AWSCloudT...	null	N/A	N/A	N/A	N/A	N/A	May 1, 2025 12:00am	May 1, 2025 12:00am	0	Usage

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