

Team #7 Cloud-Solutions System

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Database Background and Objective(Business)

- In the modern business environment, cloud services have become a crucial component of organizational success. As more businesses integrate cloud-based solutions, gaining insights into customer interactions with these services is paramount to staying competitive and driving growth. Our extensive and well-structured database is designed to provide a comprehensive understanding of various aspects, including customer accounts, cloud services, usage patterns, billing information, subscription plans, and infrastructure details.
- By effectively managing complex many-to-many relationships between Customers and Cloud Service Subscription, we can efficiently analyze customer behavior, identify emerging trends, and develop targeted strategies that cater to the evolving needs of our customer base. This data-driven approach not only enables businesses to offer personalized experiences that foster customer loyalty but also helps optimize resource allocation to ensure maximum return on investment.
- Furthermore, our cloud service provider database serves as a powerful tool that empowers businesses to make informed decisions, streamline operations, and identify opportunities for growth and innovation. By leveraging this valuable information, organizations can proactively address customer concerns, tailor subscription plans to meet specific requirements, and adapt to the dynamic market landscape. Some businesses can use this kind of service are: Cloud Service Providers, Small and Medium-sized Businesses, Government Agencies e.t.c.

Design Description

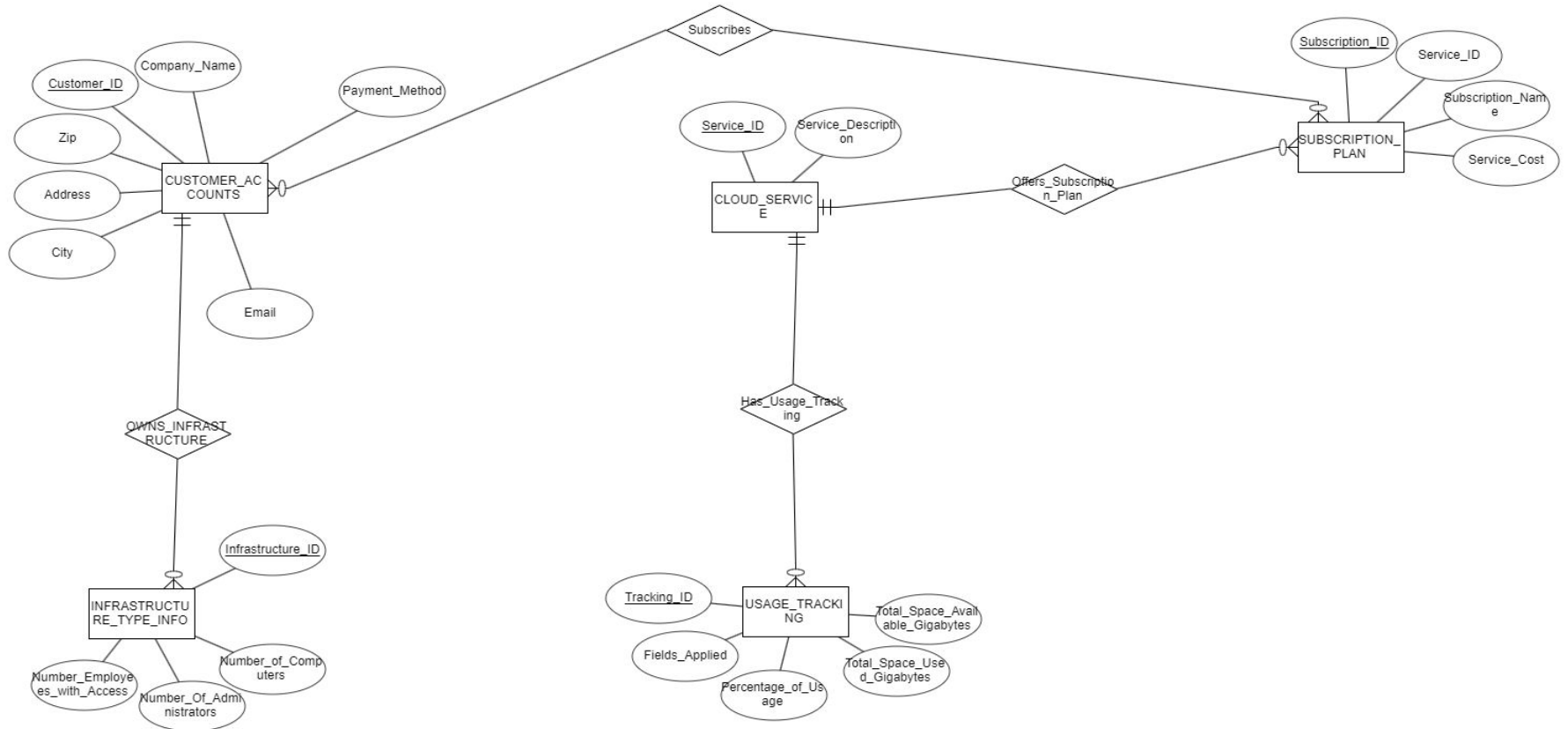
Objectives:

1. Visualize the Client's Infrastructure
2. Record Payments/Subscriptions
3. Track the usage of the Cloud services

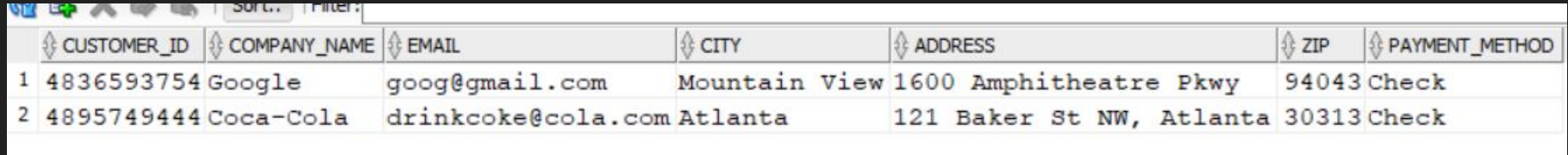
Entities:

- Customers
- Cloud Services
- Subscription Plan
- Infrastructure Type
- Usage Tracking

ER Diagram

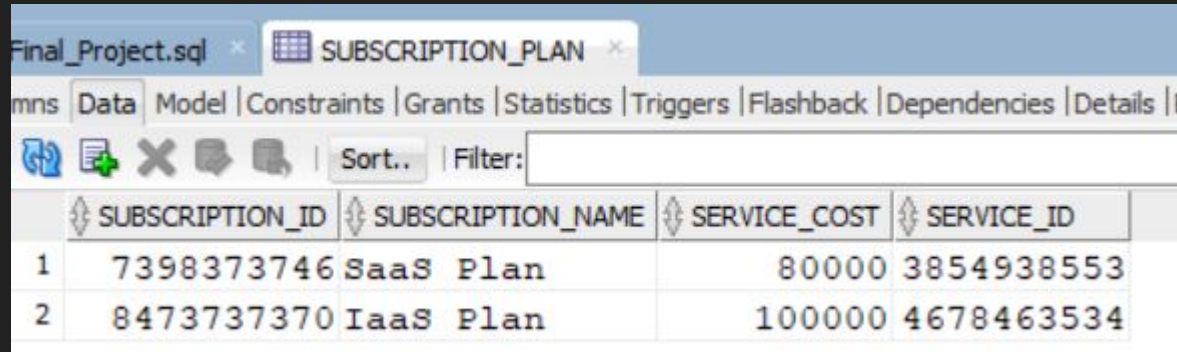


Database in SQL



A screenshot of a SQL query result in a database client. The interface includes a toolbar with icons for refresh, insert, delete, and update, along with 'Sort..' and 'Filter:' dropdowns. The table has seven columns: CUSTOMER_ID, COMPANY_NAME, EMAIL, CITY, ADDRESS, ZIP, and PAYMENT_METHOD. Two rows of data are displayed.

	CUSTOMER_ID	COMPANY_NAME	EMAIL	CITY	ADDRESS	ZIP	PAYMENT_METHOD
1	4836593754	Google	goog@gmail.com	Mountain View	1600 Amphitheatre Pkwy	94043	Check
2	4895749444	Coca-Cola	drinkcoke@cola.com	Atlanta	121 Baker St NW, Atlanta	30313	Check



A screenshot of a SQL query result in a database client. The interface shows a tab labeled 'Final_Project.sql' and a table named 'SUBSCRIPTION_PLAN'. The table has four columns: SUBSCRIPTION_ID, SUBSCRIPTION_NAME, SERVICE_COST, and SERVICE_ID. Two rows of data are displayed.

	SUBSCRIPTION_ID	SUBSCRIPTION_NAME	SERVICE_COST	SERVICE_ID
1	7398373746	SaaS Plan	80000	3854938553
2	8473737370	IaaS Plan	100000	4678463534

Database Uses

Final_Project.sql SUBSCRIPTION_PLAN x

SQL Worksheet History

Worksheet Query Builder

```
78
79 /*USE #1: Given subscription plans, we can find out what other
80 companies are subscribed to
81 */
82 SELECT c.Company_Name FROM SUBSCRIPTION_PLAN a INNER JOIN SUBSCRIBES b
83 ON (a.subscription_id=b.subscription_id) INNER JOIN
84 CUSTOMER_ACCOUNTS c ON (b.customer_id=c.customer_id)
85 WHERE a.Subscription_Name IN ('IaaS Plan');
86
87
88
89
```

Query Result x Query Result 1 x

All Rows Fetched: 1 in 0.026 seconds

COMPANY_NAME
1 Google

CIS_ora_svr_

Worksheet Query Builder

```
90
91 /*Use #2: We are able to see the descriptions that other companies
92 are subscribed to*/
93 SELECT a.company_name, c.subscription_name, d.service_description
94 FROM customer_accounts a INNER JOIN subscribes
95 b on (a.customer_id=b.customer_id)
96 INNER JOIN subscription_plan c ON
97 (b.subscription_id=c.subscription_id)
98 INNER JOIN cloud_service d ON
99 (c.service_id=d.service_id)
100 ORDER BY a.company_name;
101
```

Query Result x Query Result 1 x Query Result 2 x Query Result 3 x Query Result 4 x

All Rows Fetched: 3 in 0.033 seconds

	COMPANY_NAME	SUBSCRIPTION_NAME	SERVICE_DESCRIPTION
1	Coca-Cola	SaaS Plan	Stands for Software as a Service. You are able to manage all applications, data, stor
2	Google	IaaS Plan	Stands for Infrastructure as a Service. You are able to manage everything except for ser
3	Google	SaaS Plan	Stands for Software as a Service. You are able to manage all applications, data, stor