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Database ER Design
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Written Report

Tracker

Tracker is a full-stack **subscription tracking web application** that allows users to manage and visualize their ongoing service subscriptions. It supports functionalities like adding, editing, and deleting subscriptions while showing the total active subscriptions, monthly and yearly expenses, and organizing entries based on different sorting categories

The frontend is built with HTML, CSS, and JavaScript, and communicates with a backend powered by Node.js, Express, and a MySQL database to handle all the data.

- ☐ When the user logs in, they're taken to a homepage that displays a table listing all current subscriptions, including: name, cost, frequency (monthly or yearly), category, payment method, user, and due date.
- ☐ Users can add new subscriptions using a pop up form, or update and delete them directly from the table using edit and trash icons.
- ☐ The app also calculates and displays useful stats like the number of active subscriptions, total monthly spending, and total yearly spending.
- ☐ There are sorting options to organize the table by name, due date, category, or price, which makes it easier to analyze spending habits.

Selecting

getSubscriptions	Fetches all subscription data to be encapsulated in a front-end table.
getStatistics	Combination of Active Subscription Count, Summation of Monthly Expenses & Yearly Expenses

Inserting

insertUser	Insert a user
insertCategory	Insert a category
insertPayment	Insert a payment method
insertPlan	Insert a subscription plan
insertSubscription	Links a subscription to its user, category, payment method, and plan

Deleting

deleteSubscription	Deletes a subscription by name

Figure 1 Relational Schema

USERS

UID	full_name	email

SUBSCRIPTIONS

SID	subscription_name	status	UID	CID	PLANID	PAYID

SUBSCRIPTION_CATEGORY

CID	category_name

SUBSCRIPTION_PLAN

PLANID	plan_name	plan_type	price

PAYMENT_METHOD

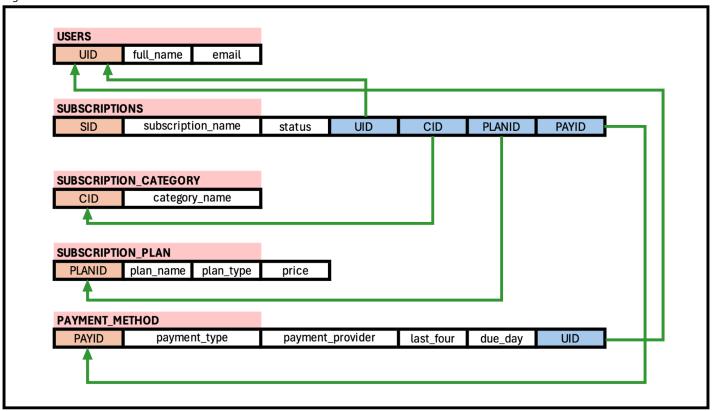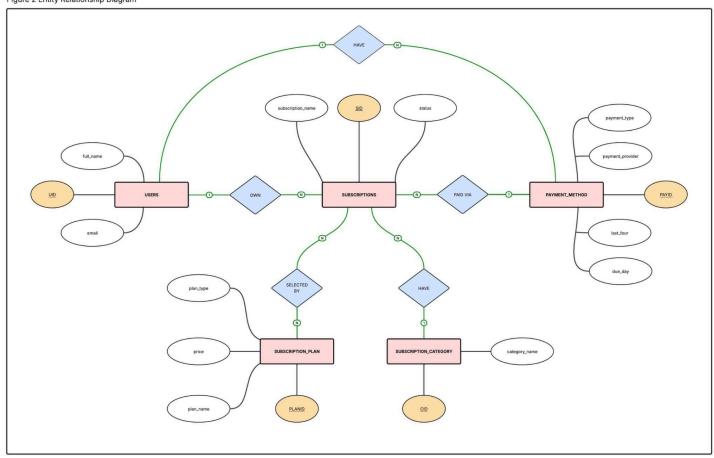| PAYID	payment_type	payment_provider	last_four	due_day	UID

Figure 2 Entity Relationship Diagram

Web References

https://eip.gg/bg3/party-planner/

https://eip.gg/bg3/build-planner/

Logo was made from scratch using Adobe Illustrator

Avatar Icon from Figma

Table Design, Web Layout, and Color Scheme were all inspired from above Website, created and styled from scratch using HTML and CSS

https://www.w3schools.com/sql