Cryptocurrency Price Tracker

DESCRIPTION:

The Cryptocurrency Price Tracker is a web application that allows users to monitor real-time prices of various cryptocurrencies. Users can search for specific cryptocurrencies, view their current prices, market caps, 24-hour price changes, and save their favorites to track them easily. The app leverages React.js and Material-UI for a clean and responsive UI, while the backend is built with Node.js and Express.js. The application uses MongoDB as a database to store favorite cryptocurrencies locally.

FEATURES:

- **Real-time Cryptocurrency Data:** Fetches data including the current price, market cap, and 24-hour percentage changes for popular cryptocurrencies.
- **Search Functionality:** Users can search for cryptocurrencies by name.
- **Favorites Management**: Users can save and remove their favorite cryptocurrencies.
- **Data Persistence:** Favorites are stored in MongoDB, ensuring they persist between sessions.

TECHNOLOGIES USED:

- Frontend: React.js, Material-UI.
- Backend: Node.js, Express.js for REST API creation.
- Database: MongoDB (local) for storing favorite cryptocurrencies.
- API: Uses the CoinGecko API to fetch live cryptocurrency data.

API Information

The backend uses **Express.js** to handle API routes for interacting with MongoDB:

- **POST** /api/favorites: Adds a cryptocurrency to the favorites list. This is stored in MongoDB under the favorites collection.
- **GET** /api/favorites: Retrieves the list of favorite cryptocurrencies stored in the MongoDB database.

- **DELETE** /api/favorites/:id: Removes a favorite cryptocurrency from the database.

The **CoinGecko API** is used to fetch real-time cryptocurrency data. It provides details such as:

- **Current Price**
- **Market Cap**
- **24-Hour Price Change**

Instruction to run program

Open terminal at vs code and split it.

Command to run server

```
PS C:\react\crypto-price-tracker> cd backend
PS C:\react\crypto-price-tracker\backend> nodemon server.js
[nodemon] 3.1.4
[nodemon] to restart at any time, enter `rs`
[nodemon] watching path(s): *.*
[nodemon] watching extensions: js,mjs,cjs,json
[nodemon] starting `node server.js`
```
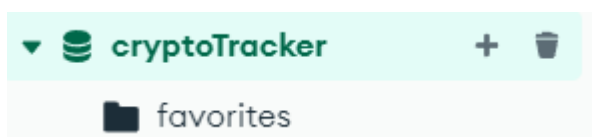
Command to run front-end

```
PS C:\react\crypto-price-tracker\frontend\src> npm start
```

Database

Database name : cryptoTracker

Collection name: favorites

cryptoTracker
- favorites

ADD DATA ▾   EXPORT DATA ▾   UPDATE   DELETE

_id: ObjectId('6715eb864c8fa09030441dfe')
name : "Toncoin"
price : 5.36
marketCap : 13620134685
change24h : 1.64289
__v : 0

_id: ObjectId('6715edd54c8fa09030441e14')
name : "Bitcoin"
price : 69012
marketCap : 1364368113144
change24h : 1.17443
__v : 0

Note

- **Data is fetched from CoinGecko API**
- **Install mui packages before running the code**
- **Install Node models before running the code**