EXP:4.2[11]

**Title**

REST API for Playing Card Collection Using Express.js

**Objective**

Build a RESTful API using Express.js to manage a collection of playing cards. This task helps you understand routing, handling HTTP methods, and basic data manipulation in a Node.js backend environment.

**Task Description**

Create an Express.js server that provides API endpoints to manage a playing card collection. The API should allow you to perform operations such as listing all cards, adding a new card (with properties like suit and value), retrieving a specific card by ID, and deleting a card by ID. Store card data in an in-memory array for simplicity. The API should follow RESTful principles and handle different HTTP methods (GET, POST, DELETE) clearly, responding with appropriate JSON data.

PROCEDURE:

const express=require("express");

const app = express();

app.use(express.json());

let cards = [

{ id: 1, suit: 'hearts', value: 'ace', collection: 'standard' },

{ id: 2, suit: 'spades', value: 'king', collection: 'vintage' }

];

function nextId(){

let x=cards.length+1;

return x;

}

app.get('/api/cards', (req, res) => {

res.json(cards);

});

app.get('/api/cards/:id', (req, res) => {

const card = cards.find(c => c.id === parseInt(req.params.id));

if (!card) return res.status(404).json({ error: 'Card not found' });

res.json(card);

});

app.post('/api/cards', (req, res) => {

const { suit, value, collection } = req.body;

if (!suit || !value || !collection) {

return res.status(400).json({ error: 'Missing fields' });

}

const newCard = {

id: nextId(),

suit,

value,

collection

};

cards.push(newCard);

res.status(201).json(newCard);

});

app.put('/api/cards/:id', (req, res) => {

const card = cards.find(c => c.id === parseInt(req.params.id));

if (!card) return res.status(404).json({ error: 'Card not found' });

const { suit, value, collection } = req.body;

if (suit) card.suit = suit;

if (value) card.value = value;

if (collection) card.collection = collection;

res.json(card);

});

app.delete('/api/cards/:id', (req, res) => {

const index = cards.findIndex(c => c.id === parseInt(req.params.id));

if (index === -1) return res.status(404).json({ error: 'Card not found' });

cards.splice(index, 1);

res.status(204).send();

});

// server

const PORT =3000;

app.listen(PORT, () => console.log(Server running on port ${PORT}));

OUTPUT:







