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db.json

```
{  
  "bookings": [  
    {  
      "arrival_date_year": 2022,  
      "arrival_date_month": "July",  
      "arrival_date_day_of_month": 15,  
      "adults": 2,  
      "children": 1,  
      "babies": 0,  
      "country": "USA"  
    }  
  ]  
}
```

DatePicker.tsx

```
import React, { useState } from 'react';  
import DatePicker from 'react-datepicker';  
import 'react-datepicker/dist/react-datepicker.css';  
  
const DateSelector = ({ onChange }: { onChange: (dates: [Date | null, Date | null]) => void })  
=> {
```

```

const [startDate, setStartDate] = useState<Date | null>(null);
const [endDate, setEndDate] = useState<Date | null>(null);

const handleDateChange = (dates: [Date | null, Date | null]) => {
  const [start, end] = dates;
  setStartDate(start);
  setEndDate(end);
  onChange(dates);
};

return (
  <DatePicker
    selected={startDate}
    onChange={handleDateChange}
    startDate={startDate}
    endDate={endDate}
    selectsRange
    inline
  />
);
};

export default DateSelector;

```

TimeSeriesChart.tsx

```

import React from 'react';
import ReactApexChart from 'react-apexcharts';

```

```

const TimeSeriesChart = ({ data }: { data: any[] }) => {
  const series = [{
    name: 'Visitors',
    data: data.map(d => ({
      x: `${d.arrival_date_year}-${d.arrival_date_month}-${d.arrival_date_day_of_month}`,
      y: d.adults + d.children + d.babies
    }))
  ]};

  const options = {
    chart: { id: 'timeseries' },
    xaxis: { type: 'datetime' },
    title: { text: 'Visitors Per Day', align: 'left' }
  };

  return (
    <ReactApexChart options={options} series={series} type="line" height={350} />
  );
};

export default TimeSeriesChart;

```

ColumnChart.tsx

```

import React from 'react';
import ReactApexChart from 'react-apexcharts';

```

```

const ColumnChart = ({ data }: { data: any[] }) => {
  const groupedData = data.reduce((acc, curr) => {
    acc[curr.country] = (acc[curr.country] || 0) + (curr.adults + curr.children + curr.babies);
    return acc;
  }, {} as Record<string, number>);

  const series = [{
    name: 'Visitors',
    data: Object.values(groupedData)
  }];

  const options = {
    chart: { id: 'columnChart' },
    xaxis: { categories: Object.keys(groupedData) },
    title: { text: 'Visitors Per Country', align: 'left' }
  };

  return (
    <ReactApexChart options={options} series={series} type="bar" height={350} />
  );
};

export default ColumnChart;

```

SparklineChart.tsx

```

import React from 'react';
import ReactApexChart from 'react-apexcharts';

```

```

const SparklineChart = ({ title, data }: { title: string; data: any[] }) => {

  const series = [{

    name: title,

    data: data.map(d => d)

  }];

  const options = {

    chart: { id: 'sparkline', sparkline: { enabled: true } },

    title: { text: title, align: 'left' }

  };

  return (

    <ReactApexChart options={options} series={series} type="line" height={80} />

  );

};

export default SparklineChart;

```

Dashboard.tsx

```

import React, { useEffect, useState } from 'react';
import DateSelector from './DateSelector';
import TimeSeriesChart from './TimeSeriesChart';
import ColumnChart from './ColumnChart';
import SparklineChart from './SparklineChart';

const Dashboard = () => {

  const [data, setData] = useState<any[]>([]);

  const [filteredData, setFilteredData] = useState<any[]>([]);

```

```
useEffect(() => {
```

```
  fetch('http://localhost:5000/bookings')
```

```
    .then(response => response.json())
```

```
    .then(json => setData(json));
```

```
}, []);
```

```
const handleDateChange = (dates: [Date | null, Date | null]) => {
```

```
  const [start, end] = dates;
```

```
  if (start && end) {
```

```
    const filtered = data.filter(item => {
```

```
      const date = new Date(item.arrival_date_year, new Date(item.arrival_date_month + '1').getMonth(), item.arrival_date_day_of_month);
```

```
      return date >= start && date <= end;
```

```
    });
```

```
    setFilteredData(filtered);
```

```
  } else {
```

```
    setFilteredData(data);
```

```
  }
```

```
};
```

```
return (
```

```
  <div>
```

```
    <h1>Hotel Booking Dashboard</h1>
```

```
    <DateSelector onChange={handleDateChange} />
```

```
    <TimeSeriesChart data={filteredData} />
```

```
    <ColumnChart data={filteredData} />
```

```
    <SparklineChart title="Adult Visitors" data={filteredData.map(d => d.adults)} />
```

```
    <SparklineChart title="Children Visitors" data={filteredData.map(d => d.children)} />
```

```
  </div>
```

```
);
```

```
};
```

```
export default Dashboard;
```