ARRAY METHODS:

(Solving problems using array functions on rest countries data: (https://restcountries.com/v3.1/all)

1)Get all the countries from Asia continent /region using filter function

```
async function getCountriesFromAsia() {
    try {
        const response = await fetch('https://restcountries.com/v3.1/all');
        if (!response.ok) {
            throw new Error(`HTTP error! status: ${response.status}`);
        }
        const countries = await response.json();
        const countriesInAsia = countries.filter(country =>
country.continents.includes('Asia'));
        console.log(countriesInAsia);
    } catch (error) {
        console.error('There was a problem fetching the countries data:',
error);
    }
}

getCountriesFromAsia();
```

2)Get all the countries with the population of less than 2 lakhs using filter function

Ans:

```
async function smallpopulation(url, populationlimit) {
    try {
        const Response = await fetch(url);
        if (!Response.ok) {
            throw new Error(`HTTP error! Status: ${Response.status}`);
        }
        const countries = await Response.json();
        return countries.filter(country => country.population <
populationlimit);
    } catch (error) {
        console.error("Error fetching data:", error);
    }
}

const url = "https://restcountries.com/v3.1/all";
const populationlimit = 200000;

smallpopulation(url, populationlimit)
    .then(smallCountries => {
        if (smallCountries) {
```

```
        smallCountries.forEach(country => {
            console.log(`${country.name.common}: ${country.population}`);
        });
    }
})
    .catch(error => {
        console.error("Error in processing:", error);
    });
```

Result:

Christmas Island: 2072

Samoa: 198410

American Samoa: 55197

Turks and Caicos Islands: 38718

 Seychelles: 98462

Curaçao: 155014

 British Indian Ocean Territory: 3000

 United States Minor Outlying Islands: 300

Åland Islands: 29458

 United States Virgin Islands: 106290

 San Marino: 33938

 Saint Pierre and Miquelon: 6069

Faroe Islands: 48865

Svalbard and Jan Mayen: 2562

 Tokelau: 1411

 Guernsey: 62999

 Caribbean Netherlands: 25987

Greenland: 56367

Sint Maarten: 40812

Palau: 18092

South Georgia: 30

 Kiribati: 119446

Jersey: 100800

Aruba: 106766

Antigua and Barbuda: 97928

Gibraltar: 33691

Pitcairn Islands: 56

Cook Islands: 18100

Antarctica: 1000

Bouvet Island: 0

French Southern and Antarctic Lands: 400

Saint Helena, Ascension and Tristan da Cunha: 53192

Bermuda: 63903

Monaco: 39244

Northern Mariana Islands: 57557

Grenada: 112519

Niue: 1470

Saint Lucia: 183629

Tuvalu: 11792

Norfolk Island: 2302

Saint Kitts and Nevis: 53192

Tonga: 105697

Saint Vincent and the Grenadines: 110947

Isle of Man: 85032

Saint Martin: 38659

Saint Barthélemy: 4255

Micronesia: 115021

Anguilla: 13452

Vatican City: 451

Montserrat: 4922

British Virgin Islands: 30237

Liechtenstein: 38137

Nauru: 10834

Cayman Islands: 65720

Wallis and Futuna: 11750

Andorra: 77265

Heard Island and McDonald Islands: 0

 Guam: 168783

Marshall Islands: 59194

 Falkland Islands: 2563

Cocos (Keeling) Islands: 544

 Dominica: 71991

3)print the following details name,Capital,flag using foreach function

Ans:

```
fetch('https://restcountries.com/v3.1/all')
    .then(response => response.json())
    .then(data => {
        data.forEach(country => {
            console.log(`Name: ${country.name.common}`);
            console.log(`Capital: ${country.capital ? country.capital[0] : 'No
capital'}`);
            console.log(`Flag: ${country.flags.png}`);
            console.log('------------------');
        });
    })
    .catch(error => console.error('Error:', error));
```

Ans:

Name: Christmas Island

Capital: Flying Fish Cove

Flag: https://flagcdn.com/w320/cx.png

Name: Eritrea

Capital: Asmara

Flag: https://flagcdn.com/w320/er.png

 Name: Samoa

Capital: Apia

Flag: https://flagcdn.com/w320/ws.png

Name: North Macedonia

 Capital: Skopje

Flag: https://flagcdn.com/w320/mk.png

 Name: Djibouti

 Capital: Djibouti

Flag: https://flagcdn.com/w320/dj.png

 Name: Jordan

 Capital: Amman

Flag: https://flagcdn.com/w320/jo.png

 Name: Pakistan

Capital: Islamabad

 Flag: https://flagcdn.com/w320/pk.png

 Name: French Polynesia

Capital: Papeetē

Flag: https://flagcdn.com/w320/pf.png

 Name: Ireland

Capital: Dublin

 Flag: https://flagcdn.com/w320/ie.png

 Name: Mauritania

 Capital: Nouakchott

 Flag: https://flagcdn.com/w320/mr.png

 Name: Denmark

 Capital: Copenhagen

Flag: https://flagcdn.com/w320/dk.png

Name: Namibia

Capital: Windhoek

Flag: https://flagcdn.com/w320/na.png

Name: Ghana

Capital: Accra

Flag: https://flagcdn.com/w320/gh.png

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4)Print the total population of countries using reduce function

Ans:

```
async function totalPopulation(url) {
    try {
        const response = await fetch(url);
        if (!response.ok) {
            throw new Error('Network response was not ok');
        }
        const countries = await response.json();
        const total = countries.reduce((acc, country) => acc +
(country.population || 0), 0);
        return total;
    } catch (error) {
        console.error("Fetching data error:", error);
    }
}

const url = "https://restcountries.com/v3.1/all";
totalPopulation(url).then(total => {
    console.log("Total population:", total);
});
```

Result:

Total population: 7777721563

5)print the country that USdollars as currency

Ans:

```
async function fetchCountriesWithUSD(url) {
    try {
        const response = await fetch(url);
        if (!response.ok) {
            throw new Error("Error fetching data");
        }
        const countries = await response.json();
        // Assuming each country object has a 'currencies' field
        // and 'USD' is represented as a key in that field
        return countries.filter(country => country.currencies &&
country.currencies.USD);
    } catch (error) {
        console.error("Fetching data error:", error);
        return []; // return an empty array in case of error
    }
};

const url = "https://restcountries.com/v3.1/all";

fetchCountriesWithUSD(url).then(countriesWithUSD => {
    console.log("Countries using USD:", countriesWithUSD);
});
```

Result:

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