如何在项目中新增一条链，使用wagmi举例说明。最后汇总所有的结论，面试回答。

在项目中新增一条区块链（如自定义链、Layer 2或EVM兼容链），使用Wagmi框架需遵循以下步骤。本文以代码示例为核心，最后附上面试精简回答。

一、配置链的基础信息

1. 定义链对象

使用 `wagmi/chains` 或自定义 `Chain` 类型，包含以下关键参数：

```typescript
import { type Chain } from 'viem/chains';

export const customChain: Chain = {
  id: 31415926, // 唯一Chain ID（必填）
  name: 'My Custom Chain',
  nativeCurrency: {
    name: 'MyToken',
    symbol: 'MTK',
    decimals: 18, // 通常为18
  },
  rpcUrls: {
    default: { http: ['https://rpc.custom-chain.org'] }, // RPC节点URL
  },
  blockExplorers: {
    default: {
      name: 'CustomScan',
      url: 'https://scan.custom-chain.org', // 区块浏览器URL
    },
  },
  // 跨链合约（如Layer2）
  contracts: {
    l1StandardBridge: {
      address: '0x4C36d2919e407f0Cc2Ee3c993ccF8ac26d9CE64e', // 跨链桥地址
    },
  },
} as const; //
```

2. 预设链ID参考

链名称	Chain ID	原生代币
Polygon	137	MATIC

链名称	Chain ID	原生代币
BNB Chain	56	BNB
Arbitrum	42161	ETH
Optimism	10	ETH
zkSync Era	324	ETH

二、集成到Wagmi配置

1. 创建Config对象

在 `config.ts` 中注入新链并配置RPC传输：

```typescript
import { createConfig, http } from 'wagmi';
import { mainnet, polygon } from 'wagmi/chains';
import { customChain } from './chains'; // 自定义链对象

export const config = createConfig({
  chains: [mainnet, polygon, customChain], // 添加新链
  transports: {
    [mainnet.id]: http(),
    [polygon.id]: http(),
    [customChain.id]: http('https://rpc.custom-chain.org'), // 指定新链RPC
  },
  connectors: [injected()], // 钱包连接器
}); //
```

2. 自定义RPC传输（高级）

如需特殊处理请求（如签名验证），使用 `custom` 传输层：

```typescript
```

```
import { custom } from 'wagmi';

const customTransport = custom({
  async request({ method, params }) {
    // 自定义请求逻辑（如添加签名头）
    const response = await fetch('https://rpc.custom-chain.org', {
      method: 'POST',
      headers: { 'X-Signature': '...' },
      body: JSON.stringify({ method, params }),
        });
    return response.json();
    },
}); //
```

三、钱包连接与链切换

1. 动态添加链到用户钱包

调用MetaMask等钱包的API添加新链：

TypeScript

```
async function addChainToWallet() {
  await window.ethereum.request({
    method: 'wallet_addEthereumChain',
    params: [{
      chainId: `0x${customChain.id.toString(16)}`, // 转为16进制
      chainName: customChain.name,
      nativeCurrency: customChain.nativeCurrency,
      rpcUrls: [customChain.rpcUrls.default.http[0]],
      blockExplorerUrls: [customChain.blockExplorers?.default.url],
        }],
    });
} //
```

2. 切换当前链

使用Wagmi钩子切换链：

Tsx

```tsx
import { useSwitchChain } from 'wagmi';

function ChainSwitcher() {
 const { chains, switchChain } = useSwitchChain();

  return (
  <select onChange={(e) => switchChain({ chainId: Number(e.target.value) })}>
   {chains.map((chain) => (
        <option key={chain.id} value={chain.id}>
          {chain.name}
        </option>
     ))}
    </select>
 );
} //
```

四、验证链功能

1. 基础检查

```typescript
TypeScript

import { getPublicClient } from 'wagmi';

// 验证节点连接
const publicClient = getPublicClient();
const blockNumber = await publicClient.getBlockNumber();

// 验证Chain ID
const chainId = await publicClient.getChainId(); //
```

2. 交易测试

发送0值交易验证链可用性：

```tsx
Tsx

import { useSendTransaction } from 'wagmi';
import { parseEther } from 'viem';

const { sendTransaction } = useSendTransaction();
sendTransaction({
 to: '0x...',
 value: parseEther('0') // 0值测试交易
}); //
```

五、面试回答要点总结

如何用Wagmi新增一条链?

1. **定义链对象** → 配置 `id` / `name` / `nativeCurrency` / `rpcUrls` ;

2. **注入Wagmi配置** → 在 `createConfig` 的 `chains` 和 `transports` 中添加新链 [21] ;

3. **钱包集成** → 调用 `wallet_addEthereumChain` 动态添加链到用户钱包 [21] ;

4. **链切换支持** → 用 `useSwitchChain` 实现前端切换逻辑 [51] ;

5. **功能验证** → 测试区块查询和0值交易确保链可用 [30] [61] 。

核心认知:

- 新增链需同时配置**节点连接**（RPC）和**钱包识别**（Chain ID）；

- Layer2链需额外设置**跨链合约地址**（如 `l1StandardBridge` ）；

- 生产环境建议使用**自定义RPC传输层**处理签名/加密等定制需求 [13] 。

https://wagmi.sh/core/api/chains

https://wagmi.sh/react/guides/chain-properties

https://wagmi.sh/core/api/actions/switchChain

https://1.x.wagmi.sh/react/providers/configuring-chains

https://github.com/wevm/wagmi/discussions/1051

https://www.dynamic.xyz/docs/react-sdk/using-wagmi

https://1.x.wagmi.sh/react/chains

https://web3auth.io/community/t/how-to-switchchain-using-wagmi-connectors/6488

https://docs.tenderly.co/virtual-testnets/dapp-ui/wagmi

https://ethereum.stackexchange.com/questions/144981/how-can-i-programatically-add-a-chain-to-a-wallet

https://1.x.wagmi.sh/react/providers/configuring-chains

https://wagmi.sh/core/api/chains

https://wagmi.sh/react/api/transports/custom

https://wagmi.sh/core/api/createConfig

https://wagmi.sh/react/guides/chain-properties

https://rainbowkit.com/guides/rainbowkit-wagmi-v2

https://docs.base.org/onchainkit/latest/configuration/wagmi-viem-integration

https://www.dynamic.xyz/docs/react-sdk/using-wagmi

https://1.x.wagmi.sh/react/chains

https://wagmi.sh/core/api/chains

https://learnblockchain.cn/article/17080

https://1.x.wagmi.sh/zh-CN/react/providers/alchemy

https://blog.csdn.net/weixin_44891495/article/details/130071032

http://defiplot.com/blog/wagmi-react-hooks-for-ethereum/

https://1.x.wagmi.sh/react/chains

https://1.x.wagmi.sh/core/providers/configuring-chains

https://www.npmjs.com/package/@wagmi/chains

https://wagmi.sh/react/api/chains

https://wagmi.sh/react/guides/chain-properties

https://wagmi.sh/core/guides/viem

https://docs.tenderly.co/virtual-testnets/dapp-ui/wagmi

https://wagmi.sh/react/guides/migrate-from-v1-to-v2

https://docs.polkadot.com/develop/smart-contracts/libraries/wagmi/

https://wagmi.sh/react/api/chains

https://github.com/wevm/wagmi/discussions/1051

https://learnblockchain.cn/article/17080

https://wagmi.sh/react/guides/viem

https://web3auth.io/community/t/how-to-switchchain-using-wagmi-connectors/6488

https://wagmi.sh/core/api/createConfig

https://ethereum.stackexchange.com/questions/144981/how-can-i-programatically-add-a-chain-to-a-wallet

https://1.x.wagmi.sh/core/providers/configuring-chains

https://www.dynamic.xyz/docs/react-sdk/using-wagmi

https://wagmi.sh/core/api/chains

https://chainlist.org/chain/11111

https://www.quicknode.com/builders-guide/tools/react-hooks-by-wagmi

https://web3auth.io/docs/sdk/web/react/ethereum-hooks

https://1.x.wagmi.sh/core/chains

https://www.npmjs.com/package/@wagmi/chains

https://1.x.wagmi.sh/react/getting-started

https://wagmi.sh/react/guides/chain-properties

https://wagmi.sh/react/api/hooks/useChainId

https://wagmi.sh/core/api/chains

https://learnblockchain.cn/article/17080

https://wagmi.sh/core/guides/chain-properties

https://wagmi.sh/core/api/actions/getChainId

https://github.com/wevm/wagmi/discussions/3759

https://wagmi.sh/react/api/createConfig

https://github.com/wevm/wagmi/discussions/972

https://www.dynamic.xyz/docs/react-sdk/using-wagmi

https://wagmi.sh/react/api/chains

https://juejin.cn/post/7465730788177461289

https://github.com/wevm/wagmi/discussions/4358

https://blog.gitcode.com/8a2dad5aefd3d2d06014e43f7a371787.html

https://blog.csdn.net/weixin_44891495/article/details/130071032

https://wagmi.sh/core/getting-started

https://1.x.wagmi.sh/zh-CN/react/providers/configuring-chains

https://wagmi.sh/react/guides/chain-properties

https://wagmi.sh/react/api/createConfig