Home Assignment

Preparation Duration: Estimated 6-8 Hours

Task:

Build a dashboard that visualizes key metrics from a DeFi protocol activity dataset.

Objective: This assignment is designed to evaluate your data modeling, component design, and ability to build a clean React UI backed by a working backend (REST or GraphQL).

Please submit code you consider production ready.

Dataset:

You'll use a mock dataset that contains daily snapshots of protocol activity across multiple chains.

-

Mock dataset JSON

dataset.json

```json
[
 {
  "timestamp": "2025-01-01T00:00:00Z",
  "protocol": "Aave",
  "chain": "Arbitrum",
  "total_value_locked_usd": 31404316.2399999984,
  "daily_volume_usd": 849202.41,
  "active_users": 665,
  "token": "USDC"
 },
 {
  "timestamp": "2025-01-01T00:00:00Z",
  "protocol": "Compound",
  "chain": "Polygon",
  "total_value_locked_usd": 11703438.8900000006,
  "daily_volume_usd": 1928161.8899999999,
  "active_users": 591,
  "token": "DAI"
 },
 {
  "timestamp": "2025-01-01T00:00:00Z",
  "protocol": "Lido",
  "chain": "Ethereum",
  "total_value_locked_usd": 19211782.9800000004,
  "daily_volume_usd": 3821436.29,
  "active_users": 408,
  "token": "USDT"
 },
 {
  "timestamp": "2025-01-01T00:00:00Z",
  "protocol": "Uniswap",
  "chain": "Optimism",
  "total_value_locked_usd": 30270302.8000000007,
  "daily_volume_usd": 330796.34,
  "active_users": 884,
  "token": "USDT"
 },
 {
```

    "timestamp": "2025-01-01T00:00:00Z",
    "protocol": "SushiSwap",
    "chain": "Optimism",
    "total_value_locked_usd": 27018605.8099999987,
    "daily_volume_usd": 3400622.29,
    "active_users": 72,
    "token": "DAI"
  },
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    "protocol": "Aave",
    "chain": "Arbitrum",
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    "daily_volume_usd": 617143.97,
    "active_users": 462,
    "token": "USDC"
  },
  {
    "timestamp": "2025-01-02T00:00:00Z",
    "protocol": "Compound",
    "chain": "Ethereum",
    "total_value_locked_usd": 27985795.1799999997,
    "daily_volume_usd": 3044489.4199999999,
    "active_users": 561,
    "token": "DAI"
  },
  {
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    "protocol": "Lido",
    "chain": "Optimism",
    "total_value_locked_usd": 31808286.8500000015,
    "daily_volume_usd": 897888.09,
    "active_users": 682,
    "token": "USDT"
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  {
    "timestamp": "2025-01-02T00:00:00Z",
    "protocol": "Uniswap",

    "chain": "Polygon",
    "total_value_locked_usd": 10329412.4900000002,
    "daily_volume_usd": 4334245.5800000001,
    "active_users": 118,
    "token": "USDT"
  },
  {
    "timestamp": "2025-01-02T00:00:00Z",
    "protocol": "SushiSwap",
    "chain": "Arbitrum",
    "total_value_locked_usd": 36670724.4200000018,
    "daily_volume_usd": 2325309.27,
    "active_users": 241,
    "token": "WBTC"
  },
  {
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    "protocol": "Aave",
    "chain": "Polygon",
    "total_value_locked_usd": 35526234.450000003,
    "daily_volume_usd": 3181380.6299999999,
    "active_users": 690,
    "token": "USDT"
  },
  {
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    "protocol": "Compound",
    "chain": "Arbitrum",
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    "daily_volume_usd": 1015250.67,
    "active_users": 685,
    "token": "WETH"
  },
  {
    "timestamp": "2025-01-03T00:00:00Z",
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    "chain": "Arbitrum",
    "total_value_locked_usd": 43604181.1099999994,

    "daily_volume_usd": 4387178.04,
    "active_users": 618,
    "token": "WBTC"
  },
  {
    "timestamp": "2025-01-03T00:00:00Z",
    "protocol": "Uniswap",
    "chain": "Arbitrum",
    "total_value_locked_usd": 29751684.129999999,
    "daily_volume_usd": 4101218.1800000002,
    "active_users": 338,
    "token": "WBTC"
  },
  {
    "timestamp": "2025-01-03T00:00:00Z",
    "protocol": "SushiSwap",
    "chain": "Ethereum",
    "total_value_locked_usd": 1491487.8,
    "daily_volume_usd": 2775184.5099999998,
    "active_users": 216,
    "token": "WETH"
  },
  {
    "timestamp": "2025-01-04T00:00:00Z",
    "protocol": "Aave",
    "chain": "Optimism",
    "total_value_locked_usd": 5214362.71,
    "daily_volume_usd": 1847412.76,
    "active_users": 469,
    "token": "DAI"
  },
  {
    "timestamp": "2025-01-04T00:00:00Z",
    "protocol": "Compound",
    "chain": "Polygon",
    "total_value_locked_usd": 4028436.6200000001,
    "daily_volume_usd": 3810518.04,
    "active_users": 641,

    "token": "USDT"
  },
  {
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   "protocol": "Lido",
   "chain": "Arbitrum",
   "total_value_locked_usd": 35800151.3200000003,
   "daily_volume_usd": 2758816.9300000002,
   "active_users": 900,
   "token": "USDC"
  },
  {
   "timestamp": "2025-01-04T00:00:00Z",
   "protocol": "Uniswap",
   "chain": "Polygon",
   "total_value_locked_usd": 7691779.7300000004,
   "daily_volume_usd": 3135976.6200000001,
   "active_users": 194,
   "token": "USDT"
  },
  {
   "timestamp": "2025-01-04T00:00:00Z",
   "protocol": "SushiSwap",
   "chain": "Arbitrum",
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   "daily_volume_usd": 1249042.4399999999,
   "active_users": 440,
   "token": "DAI"
  },
  {
   "timestamp": "2025-01-05T00:00:00Z",
   "protocol": "Aave",
   "chain": "Ethereum",
   "total_value_locked_usd": 13821738.0299999993,
   "daily_volume_usd": 157028.16,
   "active_users": 754,
   "token": "USDC"
  },

```json
  {
    "timestamp": "2025-01-05T00:00:00Z",
    "protocol": "Compound",
    "chain": "Ethereum",
    "total_value_locked_usd": 35852021.1300000027,
    "daily_volume_usd": 262684.37,
    "active_users": 851,
    "token": "WBTC"
  },
  {
    "timestamp": "2025-01-05T00:00:00Z",
    "protocol": "Lido",
    "chain": "Optimism",
    "total_value_locked_usd": 48896964.0300000012,
    "daily_volume_usd": 670387.1,
    "active_users": 211,
    "token": "USDC"
  },
  {
    "timestamp": "2025-01-05T00:00:00Z",
    "protocol": "Uniswap",
    "chain": "Polygon",
    "total_value_locked_usd": 45532903.2700000033,
    "daily_volume_usd": 4176039.0800000001,
    "active_users": 248,
    "token": "DAI"
  },
  {
    "timestamp": "2025-01-05T00:00:00Z",
    "protocol": "SushiSwap",
    "chain": "Optimism",
    "total_value_locked_usd": 12674708.1600000001,
    "daily_volume_usd": 3464759.3199999998,
    "active_users": 636,
    "token": "WETH"
  },
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    "timestamp": "2025-01-06T00:00:00Z",
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      "protocol": "Aave",
      "chain": "Optimism",
      "total_value_locked_usd": 24360436.1700000018,
      "daily_volume_usd": 1616072.5800000001,
      "active_users": 397,
      "token": "DAI"
    },
    {
      "timestamp": "2025-01-06T00:00:00Z",
      "protocol": "Compound",
      "chain": "Ethereum",
      "total_value_locked_usd": 1645973.4399999999,
      "daily_volume_usd": 1332564.6200000001,
      "active_users": 849,
      "token": "WETH"
    },
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      "chain": "Optimism",
      "total_value_locked_usd": 32545695.9100000001,
      "daily_volume_usd": 4952879.8499999996,
      "active_users": 262,
      "token": "DAI"
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    {
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      "protocol": "Uniswap",
      "chain": "Arbitrum",
      "total_value_locked_usd": 25890701.3000000007,
      "daily_volume_usd": 4688012.8200000003,
      "active_users": 96,
      "token": "WBTC"
    },
    {
      "timestamp": "2025-01-06T00:00:00Z",
      "protocol": "SushiSwap",
      "chain": "Optimism",

    "total_value_locked_usd": 12860123.9000000004,
    "daily_volume_usd": 1386628.1200000001,
    "active_users": 522,
    "token": "WBTC"
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    "total_value_locked_usd": 13556385.8900000006,
    "daily_volume_usd": 2861120.46,
    "active_users": 936,
    "token": "USDT"
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  {
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    "protocol": "Compound",
    "chain": "Optimism",
    "total_value_locked_usd": 15284177.2699999996,
    "daily_volume_usd": 4720610.3399999999,
    "active_users": 858,
    "token": "WETH"
  },
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    "chain": "Ethereum",
    "total_value_locked_usd": 26959930.8399999999,
    "daily_volume_usd": 472755.47,
    "active_users": 122,
    "token": "WBTC"
  },
  {
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    "chain": "Polygon",
    "total_value_locked_usd": 14167575.25,
    "daily_volume_usd": 2082398.05,

    "active_users": 357,
    "token": "USDC"
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    "chain": "Polygon",
    "total_value_locked_usd": 49087718.6599999964,
    "daily_volume_usd": 897294.78,
    "active_users": 694,
    "token": "WETH"
  },
  {
    "timestamp": "2025-01-08T00:00:00Z",
    "protocol": "Aave",
    "chain": "Optimism",
    "total_value_locked_usd": 45845259.8900000006,
    "daily_volume_usd": 869184.29,
    "active_users": 789,
    "token": "USDC"
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  {
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    "protocol": "Compound",
    "chain": "Optimism",
    "total_value_locked_usd": 1757545.3200000001,
    "daily_volume_usd": 4007565.5600000001,
    "active_users": 124,
    "token": "WBTC"
  },
  {
    "timestamp": "2025-01-08T00:00:00Z",
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    "chain": "Ethereum",
    "total_value_locked_usd": 19588031.9699999988,
    "daily_volume_usd": 4261881.0599999996,
    "active_users": 682,
    "token": "USDC"

  },
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   "chain": "Optimism",
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   "daily_volume_usd": 4129003.8999999999,
   "active_users": 391,
   "token": "DAI"
  },
  {
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   "daily_volume_usd": 4488575.6600000001,
   "active_users": 416,
   "token": "DAI"
  },
  {
   "timestamp": "2025-01-09T00:00:00Z",
   "protocol": "Aave",
   "chain": "Ethereum",
   "total_value_locked_usd": 22253412.9100000001,
   "daily_volume_usd": 4213142.6500000004,
   "active_users": 841,
   "token": "USDT"
  },
  {
   "timestamp": "2025-01-09T00:00:00Z",
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   "total_value_locked_usd": 41229175.7400000021,
   "daily_volume_usd": 4847111.79,
   "active_users": 742,
   "token": "USDT"
  },
  {

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    "daily_volume_usd": 4657377.8399999999,
    "active_users": 356,
    "token": "DAI"
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  {
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    "chain": "Optimism",
    "total_value_locked_usd": 21910847.5500000007,
    "daily_volume_usd": 1365704.71,
    "active_users": 359,
    "token": "USDT"
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  {
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    "chain": "Optimism",
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    "daily_volume_usd": 878680.04,
    "active_users": 127,
    "token": "USDT"
  },
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    "daily_volume_usd": 4062376.4100000001,
    "active_users": 290,
    "token": "WBTC"
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  {
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    "protocol": "Compound",

    "chain": "Polygon",
    "total_value_locked_usd": 38093098.7299999967,
    "daily_volume_usd": 4607901.4900000002,
    "active_users": 965,
    "token": "DAI"
  },
  {
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    "protocol": "Lido",
    "chain": "Optimism",
    "total_value_locked_usd": 31895335.6400000006,
    "daily_volume_usd": 1632436.1100000001,
    "active_users": 804,
    "token": "WBTC"
  },
  {
    "timestamp": "2025-01-10T00:00:00Z",
    "protocol": "Uniswap",
    "chain": "Ethereum",
    "total_value_locked_usd": 17949966.379999999,
    "daily_volume_usd": 4446629.8600000003,
    "active_users": 193,
    "token": "WBTC"
  },
  {
    "timestamp": "2025-01-10T00:00:00Z",
    "protocol": "SushiSwap",
    "chain": "Polygon",
    "total_value_locked_usd": 41330494.4799999967,
    "daily_volume_usd": 1589672.4399999999,
    "active_users": 755,
    "token": "DAI"
  },
  {
    "timestamp": "2025-01-11T00:00:00Z",
    "protocol": "Aave",
    "chain": "Ethereum",
    "total_value_locked_usd": 30026333.5399999991,

    "daily_volume_usd": 3956938.3399999999,
    "active_users": 676,
    "token": "WETH"
  },
  {
    "timestamp": "2025-01-11T00:00:00Z",
    "protocol": "Compound",
    "chain": "Optimism",
    "total_value_locked_usd": 28225709.0100000016,
    "daily_volume_usd": 3190222.7599999998,
    "active_users": 568,
    "token": "DAI"
  },
  {
    "timestamp": "2025-01-11T00:00:00Z",
    "protocol": "Lido",
    "chain": "Arbitrum",
    "total_value_locked_usd": 45135456.2899999991,
    "daily_volume_usd": 3189596.7999999998,
    "active_users": 393,
    "token": "USDC"
  },
  {
    "timestamp": "2025-01-11T00:00:00Z",
    "protocol": "Uniswap",
    "chain": "Arbitrum",
    "total_value_locked_usd": 29350158.6999999993,
    "daily_volume_usd": 594040.8100000001,
    "active_users": 684,
    "token": "USDT"
  },
  {
    "timestamp": "2025-01-11T00:00:00Z",
    "protocol": "SushiSwap",
    "chain": "Polygon",
    "total_value_locked_usd": 24646253.5899999999,
    "daily_volume_usd": 4799747.4500000002,
    "active_users": 946,

    "token": "DAI"
  },
  {
   "timestamp": "2025-01-12T00:00:00Z",
   "protocol": "Aave",
   "chain": "Polygon",
   "total_value_locked_usd": 45616716.6300000027,
   "daily_volume_usd": 803281.79,
   "active_users": 50,
   "token": "USDT"
  },
  {
   "timestamp": "2025-01-12T00:00:00Z",
   "protocol": "Compound",
   "chain": "Polygon",
   "total_value_locked_usd": 49080876.8100000024,
   "daily_volume_usd": 866956.75,
   "active_users": 346,
   "token": "USDT"
  },
  {
   "timestamp": "2025-01-12T00:00:00Z",
   "protocol": "Lido",
   "chain": "Optimism",
   "total_value_locked_usd": 33871046.3999999985,
   "daily_volume_usd": 2156980.6499999999,
   "active_users": 401,
   "token": "USDT"
  },
  {
   "timestamp": "2025-01-12T00:00:00Z",
   "protocol": "Uniswap",
   "chain": "Ethereum",
   "total_value_locked_usd": 29647493.6700000018,
   "daily_volume_usd": 2655706.5699999998,
   "active_users": 743,
   "token": "USDC"
  },

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{
  "timestamp": "2025-01-12T00:00:00Z",
  "protocol": "SushiSwap",
  "chain": "Ethereum",
  "total_value_locked_usd": 30668621.0799999982,
  "daily_volume_usd": 1266739.1499999999,
  "active_users": 692,
  "token": "USDT"
},
{
  "timestamp": "2025-01-13T00:00:00Z",
  "protocol": "Aave",
  "chain": "Optimism",
  "total_value_locked_usd": 48393141.0099999979,
  "daily_volume_usd": 4488216.4900000002,
  "active_users": 651,
  "token": "USDC"
},
{
  "timestamp": "2025-01-13T00:00:00Z",
  "protocol": "Compound",
  "chain": "Ethereum",
  "total_value_locked_usd": 40119253.1599999964,
  "daily_volume_usd": 818811.75,
  "active_users": 332,
  "token": "DAI"
},
{
  "timestamp": "2025-01-13T00:00:00Z",
  "protocol": "Lido",
  "chain": "Optimism",
  "total_value_locked_usd": 22001397.5500000007,
  "daily_volume_usd": 1300642.04,
  "active_users": 345,
  "token": "USDC"
},
{
  "timestamp": "2025-01-13T00:00:00Z",
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    "protocol": "Uniswap",
    "chain": "Optimism",
    "total_value_locked_usd": 33320262.120000001,
    "daily_volume_usd": 2403732.6499999999,
    "active_users": 986,
    "token": "WETH"
  },
  {
    "timestamp": "2025-01-13T00:00:00Z",
    "protocol": "SushiSwap",
    "chain": "Arbitrum",
    "total_value_locked_usd": 18148292.6900000013,
    "daily_volume_usd": 893197.37,
    "active_users": 973,
    "token": "WBTC"
  },
  {
    "timestamp": "2025-01-14T00:00:00Z",
    "protocol": "Aave",
    "chain": "Arbitrum",
    "total_value_locked_usd": 12311862.3900000006,
    "daily_volume_usd": 4864592.1900000004,
    "active_users": 952,
    "token": "USDC"
  },
  {
    "timestamp": "2025-01-14T00:00:00Z",
    "protocol": "Compound",
    "chain": "Arbitrum",
    "total_value_locked_usd": 48593313.450000003,
    "daily_volume_usd": 2579608.0499999998,
    "active_users": 500,
    "token": "WBTC"
  },
  {
    "timestamp": "2025-01-14T00:00:00Z",
    "protocol": "Lido",
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    "total_value_locked_usd": 22000500.8399999999,
    "daily_volume_usd": 2568552.6600000001,
    "active_users": 862,
    "token": "WBTC"
  },
  {
    "timestamp": "2025-01-14T00:00:00Z",
    "protocol": "Uniswap",
    "chain": "Polygon",
    "total_value_locked_usd": 22451638.7899999991,
    "daily_volume_usd": 2542061.0,
    "active_users": 178,
    "token": "USDT"
  },
  {
    "timestamp": "2025-01-14T00:00:00Z",
    "protocol": "SushiSwap",
    "chain": "Polygon",
    "total_value_locked_usd": 8305381.7199999997,
    "daily_volume_usd": 699001.58,
    "active_users": 515,
    "token": "WETH"
  },
  {
    "timestamp": "2025-01-15T00:00:00Z",
    "protocol": "Aave",
    "chain": "Ethereum",
    "total_value_locked_usd": 32854726.25,
    "daily_volume_usd": 4466892.8799999999,
    "active_users": 891,
    "token": "DAI"
  },
  {
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    "protocol": "Compound",
    "chain": "Polygon",
    "total_value_locked_usd": 30702306.1499999985,
    "daily_volume_usd": 393188.9,

    "active_users": 479,
    "token": "WBTC"
  },
  {
    "timestamp": "2025-01-15T00:00:00Z",
    "protocol": "Lido",
    "chain": "Optimism",
    "total_value_locked_usd": 5646866.1900000004,
    "daily_volume_usd": 4069297.4300000002,
    "active_users": 390,
    "token": "DAI"
  },
  {
    "timestamp": "2025-01-15T00:00:00Z",
    "protocol": "Uniswap",
    "chain": "Ethereum",
    "total_value_locked_usd": 32258537.3099999987,
    "daily_volume_usd": 3411338.3999999999,
    "active_users": 660,
    "token": "WETH"
  },
  {
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    "chain": "Ethereum",
    "total_value_locked_usd": 19160846.120000001,
    "daily_volume_usd": 856335.01,
    "active_users": 456,
    "token": "DAI"
  },
  {
    "timestamp": "2025-01-16T00:00:00Z",
    "protocol": "Aave",
    "chain": "Optimism",
    "total_value_locked_usd": 15451161.7699999996,
    "daily_volume_usd": 3616826.2000000002,
    "active_users": 60,
    "token": "USDT"

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  },
  {
    "timestamp": "2025-01-16T00:00:00Z",
    "protocol": "Compound",
    "chain": "Polygon",
    "total_value_locked_usd": 31647893.7899999991,
    "daily_volume_usd": 4224938.4000000004,
    "active_users": 114,
    "token": "USDT"
  },
  {
    "timestamp": "2025-01-16T00:00:00Z",
    "protocol": "Lido",
    "chain": "Arbitrum",
    "total_value_locked_usd": 42039415.4399999976,
    "daily_volume_usd": 3249691.0099999998,
    "active_users": 169,
    "token": "WETH"
  },
  {
    "timestamp": "2025-01-16T00:00:00Z",
    "protocol": "Uniswap",
    "chain": "Optimism",
    "total_value_locked_usd": 39352598.2899999991,
    "daily_volume_usd": 2643020.75,
    "active_users": 353,
    "token": "USDT"
  },
  {
    "timestamp": "2025-01-16T00:00:00Z",
    "protocol": "SushiSwap",
    "chain": "Polygon",
    "total_value_locked_usd": 3788991.77,
    "daily_volume_usd": 4431320.2300000004,
    "active_users": 953,
    "token": "USDT"
  },
  {
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    "timestamp": "2025-01-17T00:00:00Z",
    "protocol": "Aave",
    "chain": "Ethereum",
    "total_value_locked_usd": 22425102.2399999984,
    "daily_volume_usd": 2946910.21,
    "active_users": 79,
    "token": "USDC"
  },
  {
    "timestamp": "2025-01-17T00:00:00Z",
    "protocol": "Compound",
    "chain": "Ethereum",
    "total_value_locked_usd": 34475954.3699999973,
    "daily_volume_usd": 4409022.9900000002,
    "active_users": 701,
    "token": "WETH"
  },
  {
    "timestamp": "2025-01-17T00:00:00Z",
    "protocol": "Lido",
    "chain": "Optimism",
    "total_value_locked_usd": 18527082.9400000013,
    "daily_volume_usd": 179304.53,
    "active_users": 815,
    "token": "WETH"
  },
  {
    "timestamp": "2025-01-17T00:00:00Z",
    "protocol": "Uniswap",
    "chain": "Arbitrum",
    "total_value_locked_usd": 12972228.1799999997,
    "daily_volume_usd": 4123581.1200000001,
    "active_users": 796,
    "token": "USDT"
  },
  {
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    "protocol": "SushiSwap",

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    "total_value_locked_usd": 49220364.8200000003,
    "daily_volume_usd": 2851780.23,
    "active_users": 512,
    "token": "USDT"
  },
  {
    "timestamp": "2025-01-18T00:00:00Z",
    "protocol": "Aave",
    "chain": "Optimism",
    "total_value_locked_usd": 22218502.4400000013,
    "daily_volume_usd": 1686915.6000000001,
    "active_users": 962,
    "token": "USDC"
  },
  {
    "timestamp": "2025-01-18T00:00:00Z",
    "protocol": "Compound",
    "chain": "Optimism",
    "total_value_locked_usd": 11297010.6899999995,
    "daily_volume_usd": 2535742.4100000001,
    "active_users": 181,
    "token": "USDC"
  },
  {
    "timestamp": "2025-01-18T00:00:00Z",
    "protocol": "Lido",
    "chain": "Optimism",
    "total_value_locked_usd": 32474806.5300000012,
    "daily_volume_usd": 894689.01,
    "active_users": 932,
    "token": "WBTC"
  },
  {
    "timestamp": "2025-01-18T00:00:00Z",
    "protocol": "Uniswap",
    "chain": "Ethereum",
    "total_value_locked_usd": 20954074.9499999993,

    "daily_volume_usd": 1095173.0900000001,
    "active_users": 55,
    "token": "DAI"
  },
  {
    "timestamp": "2025-01-18T00:00:00Z",
    "protocol": "SushiSwap",
    "chain": "Ethereum",
    "total_value_locked_usd": 23617172.7199999988,
    "daily_volume_usd": 2419366.6899999999,
    "active_users": 890,
    "token": "WETH"
  },
  {
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    "protocol": "Aave",
    "chain": "Optimism",
    "total_value_locked_usd": 20341855.2300000004,
    "daily_volume_usd": 2936294.9300000002,
    "active_users": 440,
    "token": "WBTC"
  },
  {
    "timestamp": "2025-01-19T00:00:00Z",
    "protocol": "Compound",
    "chain": "Arbitrum",
    "total_value_locked_usd": 18161694.2399999984,
    "daily_volume_usd": 4376147.7599999998,
    "active_users": 296,
    "token": "USDT"
  },
  {
    "timestamp": "2025-01-19T00:00:00Z",
    "protocol": "Lido",
    "chain": "Optimism",
    "total_value_locked_usd": 39197538.8900000006,
    "daily_volume_usd": 4688158.0700000003,
    "active_users": 239,

    "token": "USDC"
  },
  {
   "timestamp": "2025-01-19T00:00:00Z",
   "protocol": "Uniswap",
   "chain": "Optimism",
   "total_value_locked_usd": 43048172.2199999988,
   "daily_volume_usd": 2886597.1499999999,
   "active_users": 768,
   "token": "USDT"
  },
  {
   "timestamp": "2025-01-19T00:00:00Z",
   "protocol": "SushiSwap",
   "chain": "Ethereum",
   "total_value_locked_usd": 16606018.6999999993,
   "daily_volume_usd": 424445.49,
   "active_users": 318,
   "token": "WETH"
  },
  {
   "timestamp": "2025-01-20T00:00:00Z",
   "protocol": "Aave",
   "chain": "Arbitrum",
   "total_value_locked_usd": 29903377.6799999997,
   "daily_volume_usd": 4006363.8399999999,
   "active_users": 180,
   "token": "WBTC"
  },
  {
   "timestamp": "2025-01-20T00:00:00Z",
   "protocol": "Compound",
   "chain": "Arbitrum",
   "total_value_locked_usd": 41272619.6199999973,
   "daily_volume_usd": 3309966.23,
   "active_users": 889,
   "token": "DAI"
  },

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{
  "timestamp": "2025-01-20T00:00:00Z",
  "protocol": "Lido",
  "chain": "Ethereum",
  "total_value_locked_usd": 4530077.6699999999,
  "daily_volume_usd": 3475194.6600000001,
  "active_users": 749,
  "token": "USDC"
},
{
  "timestamp": "2025-01-20T00:00:00Z",
  "protocol": "Uniswap",
  "chain": "Ethereum",
  "total_value_locked_usd": 30993455.6000000015,
  "daily_volume_usd": 1717009.8700000001,
  "active_users": 780,
  "token": "WBTC"
},
{
  "timestamp": "2025-01-20T00:00:00Z",
  "protocol": "SushiSwap",
  "chain": "Polygon",
  "total_value_locked_usd": 3615736.6299999999,
  "daily_volume_usd": 439304.83,
  "active_users": 209,
  "token": "USDC"
},
{
  "timestamp": "2025-01-21T00:00:00Z",
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  "daily_volume_usd": 3175622.21,
  "active_users": 358,
  "token": "WBTC"
},
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  "timestamp": "2025-01-21T00:00:00Z",
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    "protocol": "Compound",
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    "total_value_locked_usd": 21851399.7100000009,
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    "active_users": 516,
    "token": "USDT"
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  {
    "timestamp": "2025-01-21T00:00:00Z",
    "protocol": "Lido",
    "chain": "Optimism",
    "total_value_locked_usd": 13619048.8900000006,
    "daily_volume_usd": 4469810.4400000004,
    "active_users": 122,
    "token": "DAI"
  },
  {
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    "chain": "Optimism",
    "total_value_locked_usd": 4718863.5700000003,
    "daily_volume_usd": 3190991.1099999999,
    "active_users": 262,
    "token": "WBTC"
  },
  {
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    "total_value_locked_usd": 46314619.2199999988,
    "daily_volume_usd": 2307381.5899999999,
    "active_users": 949,
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  },
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    "protocol": "Aave",
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    "total_value_locked_usd": 18556291.7100000009,
    "daily_volume_usd": 2941730.3199999998,
    "active_users": 789,
    "token": "WETH"
  },
  {
    "timestamp": "2025-01-22T00:00:00Z",
    "protocol": "Compound",
    "chain": "Optimism",
    "total_value_locked_usd": 27974338.0700000003,
    "daily_volume_usd": 4783536.6200000001,
    "active_users": 429,
    "token": "USDT"
  },
  {
    "timestamp": "2025-01-22T00:00:00Z",
    "protocol": "Lido",
    "chain": "Polygon",
    "total_value_locked_usd": 11079674.6999999993,
    "daily_volume_usd": 2264894.6400000001,
    "active_users": 335,
    "token": "USDT"
  },
  {
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    "protocol": "Uniswap",
    "chain": "Ethereum",
    "total_value_locked_usd": 49020595.0399999991,
    "daily_volume_usd": 4625223.5599999996,
    "active_users": 399,
    "token": "WBTC"
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  {
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    "protocol": "SushiSwap",
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    "total_value_locked_usd": 30578520.3000000007,
    "daily_volume_usd": 1079580.3400000001,

    "active_users": 314,
    "token": "USDC"
  },
  {
    "timestamp": "2025-01-23T00:00:00Z",
    "protocol": "Aave",
    "chain": "Ethereum",
    "total_value_locked_usd": 3230526.4300000002,
    "daily_volume_usd": 629859.45,
    "active_users": 285,
    "token": "USDC"
  },
  {
    "timestamp": "2025-01-23T00:00:00Z",
    "protocol": "Compound",
    "chain": "Arbitrum",
    "total_value_locked_usd": 48936202.299999997,
    "daily_volume_usd": 1571104.1200000001,
    "active_users": 361,
    "token": "USDT"
  },
  {
    "timestamp": "2025-01-23T00:00:00Z",
    "protocol": "Lido",
    "chain": "Polygon",
    "total_value_locked_usd": 45513232.1599999964,
    "daily_volume_usd": 2777879.3199999998,
    "active_users": 384,
    "token": "USDT"
  },
  {
    "timestamp": "2025-01-23T00:00:00Z",
    "protocol": "Uniswap",
    "chain": "Ethereum",
    "total_value_locked_usd": 31963260.9499999993,
    "daily_volume_usd": 2113597.5499999998,
    "active_users": 996,
    "token": "WETH"

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  },
  {
    "timestamp": "2025-01-23T00:00:00Z",
    "protocol": "SushiSwap",
    "chain": "Ethereum",
    "total_value_locked_usd": 44445594.0300000012,
    "daily_volume_usd": 4246408.46,
    "active_users": 688,
    "token": "WBTC"
  },
  {
    "timestamp": "2025-01-24T00:00:00Z",
    "protocol": "Aave",
    "chain": "Polygon",
    "total_value_locked_usd": 4393798.0,
    "daily_volume_usd": 166208.55,
    "active_users": 931,
    "token": "DAI"
  },
  {
    "timestamp": "2025-01-24T00:00:00Z",
    "protocol": "Compound",
    "chain": "Polygon",
    "total_value_locked_usd": 5182318.0099999998,
    "daily_volume_usd": 2799998.7200000002,
    "active_users": 501,
    "token": "DAI"
  },
  {
    "timestamp": "2025-01-24T00:00:00Z",
    "protocol": "Lido",
    "chain": "Arbitrum",
    "total_value_locked_usd": 37756779.4900000021,
    "daily_volume_usd": 3053399.7599999998,
    "active_users": 337,
    "token": "WBTC"
  },
  {
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    "timestamp": "2025-01-24T00:00:00Z",
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    "daily_volume_usd": 3321976.0299999998,
    "active_users": 972,
    "token": "WETH"
  },
  {
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    "protocol": "SushiSwap",
    "chain": "Arbitrum",
    "total_value_locked_usd": 2973242.52,
    "daily_volume_usd": 135153.45,
    "active_users": 589,
    "token": "USDC"
  },
  {
    "timestamp": "2025-01-25T00:00:00Z",
    "protocol": "Aave",
    "chain": "Arbitrum",
    "total_value_locked_usd": 46603639.0300000012,
    "daily_volume_usd": 3539871.6800000002,
    "active_users": 365,
    "token": "USDC"
  },
  {
    "timestamp": "2025-01-25T00:00:00Z",
    "protocol": "Compound",
    "chain": "Arbitrum",
    "total_value_locked_usd": 33920171.3299999982,
    "daily_volume_usd": 574000.83,
    "active_users": 980,
    "token": "DAI"
  },
  {
    "timestamp": "2025-01-25T00:00:00Z",
    "protocol": "Lido",

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    "chain": "Arbitrum",
    "total_value_locked_usd": 13639906.4600000009,
    "daily_volume_usd": 3483453.0800000001,
    "active_users": 196,
    "token": "WBTC"
  },
  {
    "timestamp": "2025-01-25T00:00:00Z",
    "protocol": "Uniswap",
    "chain": "Ethereum",
    "total_value_locked_usd": 35396017.2599999979,
    "daily_volume_usd": 1423599.9099999999,
    "active_users": 488,
    "token": "WBTC"
  },
  {
    "timestamp": "2025-01-25T00:00:00Z",
    "protocol": "SushiSwap",
    "chain": "Polygon",
    "total_value_locked_usd": 38242747.1099999994,
    "daily_volume_usd": 2878909.7599999998,
    "active_users": 322,
    "token": "WETH"
  },
  {
    "timestamp": "2025-01-26T00:00:00Z",
    "protocol": "Aave",
    "chain": "Optimism",
    "total_value_locked_usd": 24429660.6499999985,
    "daily_volume_usd": 4381502.4100000001,
    "active_users": 864,
    "token": "WETH"
  },
  {
    "timestamp": "2025-01-26T00:00:00Z",
    "protocol": "Compound",
    "chain": "Arbitrum",
    "total_value_locked_usd": 20860124.629999999,
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    "daily_volume_usd": 4202687.8700000001,
    "active_users": 609,
    "token": "USDC"
  },
  {
    "timestamp": "2025-01-26T00:00:00Z",
    "protocol": "Lido",
    "chain": "Polygon",
    "total_value_locked_usd": 4584091.5,
    "daily_volume_usd": 977376.2,
    "active_users": 974,
    "token": "USDT"
  },
  {
    "timestamp": "2025-01-26T00:00:00Z",
    "protocol": "Uniswap",
    "chain": "Ethereum",
    "total_value_locked_usd": 14602088.8900000006,
    "daily_volume_usd": 598072.9,
    "active_users": 763,
    "token": "WETH"
  },
  {
    "timestamp": "2025-01-26T00:00:00Z",
    "protocol": "SushiSwap",
    "chain": "Ethereum",
    "total_value_locked_usd": 41990328.200000003,
    "daily_volume_usd": 3676737.1200000001,
    "active_users": 942,
    "token": "DAI"
  },
  {
    "timestamp": "2025-01-27T00:00:00Z",
    "protocol": "Aave",
    "chain": "Optimism",
    "total_value_locked_usd": 33123566.6999999993,
    "daily_volume_usd": 4607416.5499999998,
    "active_users": 151,

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    "token": "USDC"
  },
  {
    "timestamp": "2025-01-27T00:00:00Z",
    "protocol": "Compound",
    "chain": "Optimism",
    "total_value_locked_usd": 34076708.8200000003,
    "daily_volume_usd": 1548513.54,
    "active_users": 100,
    "token": "USDT"
  },
  {
    "timestamp": "2025-01-27T00:00:00Z",
    "protocol": "Lido",
    "chain": "Arbitrum",
    "total_value_locked_usd": 47620892.2599999979,
    "daily_volume_usd": 4336458.4199999999,
    "active_users": 54,
    "token": "DAI"
  },
  {
    "timestamp": "2025-01-27T00:00:00Z",
    "protocol": "Uniswap",
    "chain": "Ethereum",
    "total_value_locked_usd": 5227896.5899999999,
    "daily_volume_usd": 2052232.8799999999,
    "active_users": 436,
    "token": "WETH"
  },
  {
    "timestamp": "2025-01-27T00:00:00Z",
    "protocol": "SushiSwap",
    "chain": "Optimism",
    "total_value_locked_usd": 46976343.8500000015,
    "daily_volume_usd": 2472489.1899999999,
    "active_users": 261,
    "token": "WBTC"
  },
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```json
{
  "timestamp": "2025-01-28T00:00:00Z",
  "protocol": "Aave",
  "chain": "Optimism",
  "total_value_locked_usd": 4253789.1900000004,
  "daily_volume_usd": 3662992.6400000001,
  "active_users": 542,
  "token": "WBTC"
},
{
  "timestamp": "2025-01-28T00:00:00Z",
  "protocol": "Compound",
  "chain": "Polygon",
  "total_value_locked_usd": 49275857.8900000006,
  "daily_volume_usd": 261837.6,
  "active_users": 471,
  "token": "DAI"
},
{
  "timestamp": "2025-01-28T00:00:00Z",
  "protocol": "Lido",
  "chain": "Polygon",
  "total_value_locked_usd": 30782361.8999999985,
  "daily_volume_usd": 3759503.8700000001,
  "active_users": 115,
  "token": "USDC"
},
{
  "timestamp": "2025-01-28T00:00:00Z",
  "protocol": "Uniswap",
  "chain": "Ethereum",
  "total_value_locked_usd": 21505951.9400000013,
  "daily_volume_usd": 1640222.8300000001,
  "active_users": 916,
  "token": "USDT"
},
{
  "timestamp": "2025-01-28T00:00:00Z",
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    "protocol": "SushiSwap",
    "chain": "Ethereum",
    "total_value_locked_usd": 11431950.1500000004,
    "daily_volume_usd": 2514438.75,
    "active_users": 653,
    "token": "DAI"
  },
  {
    "timestamp": "2025-01-29T00:00:00Z",
    "protocol": "Aave",
    "chain": "Optimism",
    "total_value_locked_usd": 27443037.0599999987,
    "daily_volume_usd": 3058381.3799999999,
    "active_users": 83,
    "token": "WBTC"
  },
  {
    "timestamp": "2025-01-29T00:00:00Z",
    "protocol": "Compound",
    "chain": "Arbitrum",
    "total_value_locked_usd": 9557277.7599999998,
    "daily_volume_usd": 2756357.6099999999,
    "active_users": 426,
    "token": "WBTC"
  },
  {
    "timestamp": "2025-01-29T00:00:00Z",
    "protocol": "Lido",
    "chain": "Ethereum",
    "total_value_locked_usd": 39067612.5,
    "daily_volume_usd": 1796374.9099999999,
    "active_users": 640,
    "token": "USDC"
  },
  {
    "timestamp": "2025-01-29T00:00:00Z",
    "protocol": "Uniswap",
    "chain": "Polygon",

```json
    "total_value_locked_usd": 24361133.120000001,
    "daily_volume_usd": 2968965.2200000002,
    "active_users": 670,
    "token": "USDC"
  },
  {
    "timestamp": "2025-01-29T00:00:00Z",
    "protocol": "SushiSwap",
    "chain": "Optimism",
    "total_value_locked_usd": 39677369.3599999994,
    "daily_volume_usd": 1154929.29,
    "active_users": 590,
    "token": "WETH"
  },
  {
    "timestamp": "2025-01-30T00:00:00Z",
    "protocol": "Aave",
    "chain": "Optimism",
    "total_value_locked_usd": 7866168.7400000002,
    "daily_volume_usd": 3662426.7000000002,
    "active_users": 525,
    "token": "USDT"
  },
  {
    "timestamp": "2025-01-30T00:00:00Z",
    "protocol": "Compound",
    "chain": "Arbitrum",
    "total_value_locked_usd": 11489047.1699999999,
    "daily_volume_usd": 1436378.54,
    "active_users": 639,
    "token": "WBTC"
  },
  {
    "timestamp": "2025-01-30T00:00:00Z",
    "protocol": "Lido",
    "chain": "Ethereum",
    "total_value_locked_usd": 1000255.75,
    "daily_volume_usd": 4360244.9199999999,
```

```json
    "active_users": 460,
    "token": "DAI"
  },
  {
    "timestamp": "2025-01-30T00:00:00Z",
    "protocol": "Uniswap",
    "chain": "Polygon",
    "total_value_locked_usd": 9033399.1799999997,
    "daily_volume_usd": 1724515.24,
    "active_users": 200,
    "token": "DAI"
  },
  {
    "timestamp": "2025-01-30T00:00:00Z",
    "protocol": "SushiSwap",
    "chain": "Ethereum",
    "total_value_locked_usd": 14674139.4499999993,
    "daily_volume_usd": 295493.55,
    "active_users": 185,
    "token": "USDC"
  }
]
```

Each entry includes:

Field.   Description

Timestamp.

Date of the snapshot

Protocol.   e.g., Aave, Compound

chain.   e.g., Ethereum, Arbitrum

token.   e.g., WETH, USDC

total_value_locked_usd.   Total value locked in USD

daily_volume_usd.   Daily transactionvolume

active_users   Daily unique users

Requirements
Frontend

- Must use React

- Use any charting library (e.g., Recharts, Chart.js, ECharts)

- Include at least three charts (see below)

- Show care for good component design and code organization

- Layout should be clean and user-friendly,

Backend

- Use any stack you want (e.g Node, Python, Go etc.)

- Can be built using REST or GraphQL

- Serve the dataset (from file, memory, or DB)

- Support aggregation or filtering endpoints/queries

Required Charts

Build a dashboard with at least the following visualizations:

1. Time Series Line Chart

   o Shows Total Value Locked (TVL) over time

2. Bar Chart

   o Compares Daily Volume grouped by protocol

3. Pie or Bar Chart

    o Shows Active Users split by Chain

Required Filters

These should apply to all charts globally:

- Chain (multi-select)

- Protocol (multi-select)

- Token (multi-select)

- Date Range (custom or presets)

What We Look For

What We're EvaluatingReact DesignReusable chart component, clean component structure Data Modeling Generalized and flexible data structureUXIntuitive UI, clear filters,

responsive layoutAPI DesignLogical grouping/filtering of dataCode QualityModular code, naming, readability

Bonus Points

- Live demo (Vercel, Netlify, Render)

- Export Data from charts to CSV

- Tests or validation schemas

Submission Guidelines:

- Deadline: You have 48 hours from the moment you receive this assignment to submit it. This strict deadline is designed to ensure the assignment is a true reflection of your skills, efficiency, and productivity.

- Please share a GitHub repository with aviadg@chaoslabs.xyz and michaelk@chaoslabs.xyz

Make sure to include a README.md file with clear instructions on how to run the code.

-

Submission Method: Once completed, please send an email notification to:

- o ronah@chaoslabs.xyz

- o Jenna@chaoslabs.xyz

- o aviadg@chaoslabs.xyz

- Access: Ensure the recipients have the necessary permissions to view and comment.