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2. REST API curl command or URL address to enter at the web browser

Ans=


curl

"[https://www.alphavantage.co/query?function=TIME\\_SERIES\\_INTRADAY&symbol=IBM&interval=60min&apikey=0WLE96LAO39LS09T](https://www.alphavantage.co/query?function=TIME_SERIES_INTRADAY&symbol=IBM&interval=60min&apikey=0WLE96LAO39LS09T)"

You can get the key from this website:

<https://www.alphavantage.co/support/#api-key>.

then you will get the API key by do following the picture

 Claim your Free API Key

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Claim your free key for the [Alpha Vantage Stock API](#) with lifetime access. We highly recommend that you use a legitimate email address - this is the primary way we will contact you for feature announcements and troubleshooting purposes (e.g. if you lose your API key).

Which of the following best describes you?

Investor

▼

Organization (e.g. company, university, etc.):

Email:

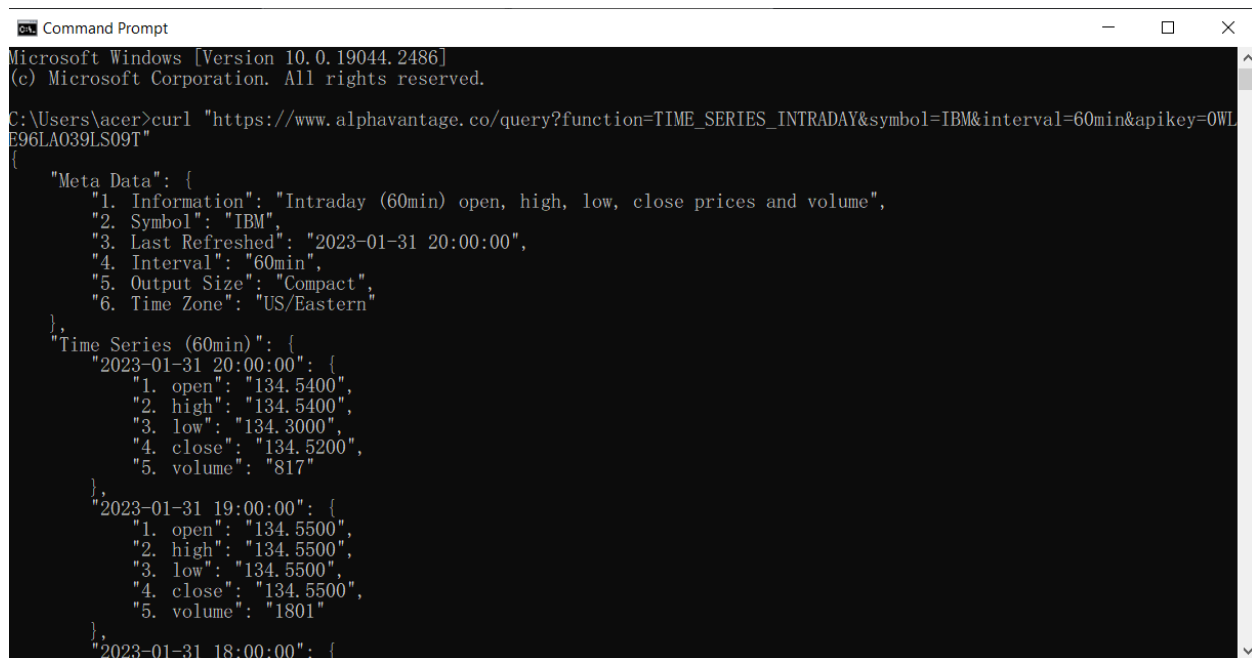
GET FREE API KEY

Welcome to Alpha Vantage! Your API key is: 0WLE96LAO39LS09T. Please record this API key at a safe place for future data access.

### 3. Example output data that you have obtained

```
{
  "Meta Data": {
    "1. Information": "Intraday (60min) open, high, low, close prices and volume",
    "2. Symbol": "IBM",
    "3. Last Refreshed": "2023-01-31 20:00:00",
    "4. Interval": "60min",
    "5. Output Size": "Compact",
    "6. Time Zone": "US/Eastern"
  },
  "Time Series (60min)": {
    "2023-01-31 20:00:00": {
      "1. open": "134.5400",
      "2. high": "134.5400",
      "3. low": "134.3000",
      "4. close": "134.5200",
      "5. volume": "817"
    },
    "2023-01-31 19:00:00": {
      "1. open": "134.5500",
      "2. high": "134.5500",
      "3. low": "134.5500",
      "4. close": "134.5500",
      "5. volume": "1801"
    },
    "2023-01-31 18:00:00": {
      "1. open": "134.4000",
      "2. high": "134.7300",
      "3. low": "134.4000",
      "4. close": "134.7300",
      "5. volume": "1439"
    },
    "2023-01-31 17:00:00": {
      "1. open": "134.7300",
      "2. high": "135.0000",
      "3. low": "134.2570",
      "4. close": "134.4000",
      "5. volume": "828684"
    },
    "2023-01-31 16:00:00": {
      "1. open": "134.4241",
      "2. high": "134.8000",
      "3. low": "133.7800",
      "4. close": "134.7600",
      "5. volume": "1505083"
    }
  }
}
```

Example output data from URL address.



```
Microsoft Windows [Version 10.0.19044.2486]
(c) Microsoft Corporation. All rights reserved.

C:\Users\acer>curl "https://www.alphavantage.co/query?function=TIME_SERIES_INTRADAY&symbol=IBM&interval=60min&apikey=OWL
E96LA039LS09T"
{
  "Meta Data": {
    "1. Information": "Intraday (60min) open, high, low, close prices and volume",
    "2. Symbol": "IBM",
    "3. Last Refreshed": "2023-01-31 20:00:00",
    "4. Interval": "60min",
    "5. Output Size": "Compact",
    "6. Time Zone": "US/Eastern"
  },
  "Time Series (60min)": {
    "2023-01-31 20:00:00": {
      "1. open": "134.5400",
      "2. high": "134.5400",
      "3. low": "134.3000",
      "4. close": "134.5200",
      "5. volume": "817"
    },
    "2023-01-31 19:00:00": {
      "1. open": "134.5500",
      "2. high": "134.5500",
      "3. low": "134.5500",
      "4. close": "134.5500",
      "5. volume": "1801"
    },
    "2023-01-31 18:00:00": {
```

Example output data from command prompt

**4. One paragraph describing what data you have obtained**

**Ans:** The output of This API returns intraday time series of the equity specified, covering extended trading hours. The intraday data is derived from the Securities Information Processor (SIP) market-aggregated data.

**5. URL linking to the REST API reference document for the public data repository you have obtained**

**Ans:** <https://www.alphavantage.co/documentation>