Data Source List

Techwars 2025-2026

This document contains a list of APIs and Data Sources that you may avail for this round. You **may** use other data sources or APIs beyond this list as necessary.

List of APIs:

https://f1api.dev/docs	Formula 1
https://api.coingecko.com/api/v3/coins/markets?vs_currency=usd	Cryptocurrency
https://attackontitanquotes.vercel.app	Attack on Titan Quotes
https://publicapis.io/steam-api	Steam API
https://alexwohlbruck.github.io/cat-facts/	Daily Cat Facts
https://developer.riotgames.com/?ref=apilist.fun	Riot Games API - League of Legends data
https://aqicn.org/api/	AQICN - Air Pollution
https://openweathermap.org/current	Weather Data
https://www.api-football.com/	Football
https://api.nasa.gov/neo/rest/v1/feed?start_date=2024-01-01&end_date=2024-01-07&api_key={insert key}	Nasa Space Photographs
https://api.artic.edu/api/v1/artworks/	API that has data on artworks

Even if you do not find anything helpful in this list, you can Google additional APIs and read about their setup. You can also download data that is already complete, or use simulated data to supplement your API data.

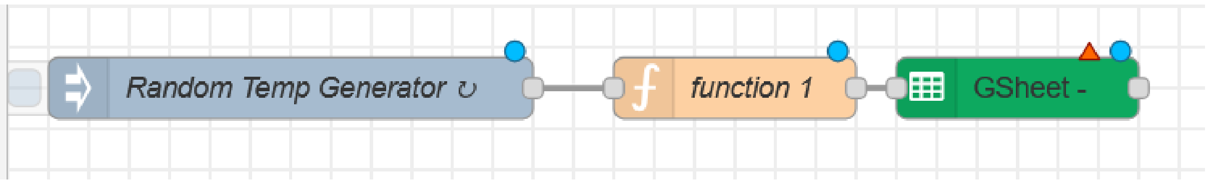
Simulated Data

If you cannot find enough existing data, that is both free or actively updated, you may simulate data using random number generators, algorithms, or write it manually.

You may also use this alongside real data, if necessary.

Note that if you do use simulated data, be careful that you maintain a certain level of complexity, as replacing an API directly with a single simulated data point may reduce the **complexity in design** of your workflow, resulting in a loss of marks. You should use multiple simulated data points to maintain this complexity.

Random Number Generation



On NodeRed, create an **Inject Node** and set it to repeat at your desired interval (Random Temp Generator).

Connect this to a **Function Node** which should be programmed to generate a random number.

Function Node Code:

```
msg.payload = Math.floor(Math.random() * 10) + 1
//Generates a random number between 1 and 10
return msg;
```

You can edit this with the format:

```
Math.floor(Math.random() * Max_Number) + Min_Number
```

However, the code above alone will not work, as it is not correctly formatted for Google Sheets. Here is an example for this:

```
const time = new Date();
const cities = ['Lahore', 'Islamabad', 'Karachi'];

//Generate the random data
const randomVal1 = Math.floor(Math.random() * 10) + 1;
const randomVal2 = Math.floor(Math.random() * 100) + 1;

//Get a random city
const randomCityIndex = Math.floor(Math.random() * cities.length);
const selectedCity = cities[randomCityIndex];
```

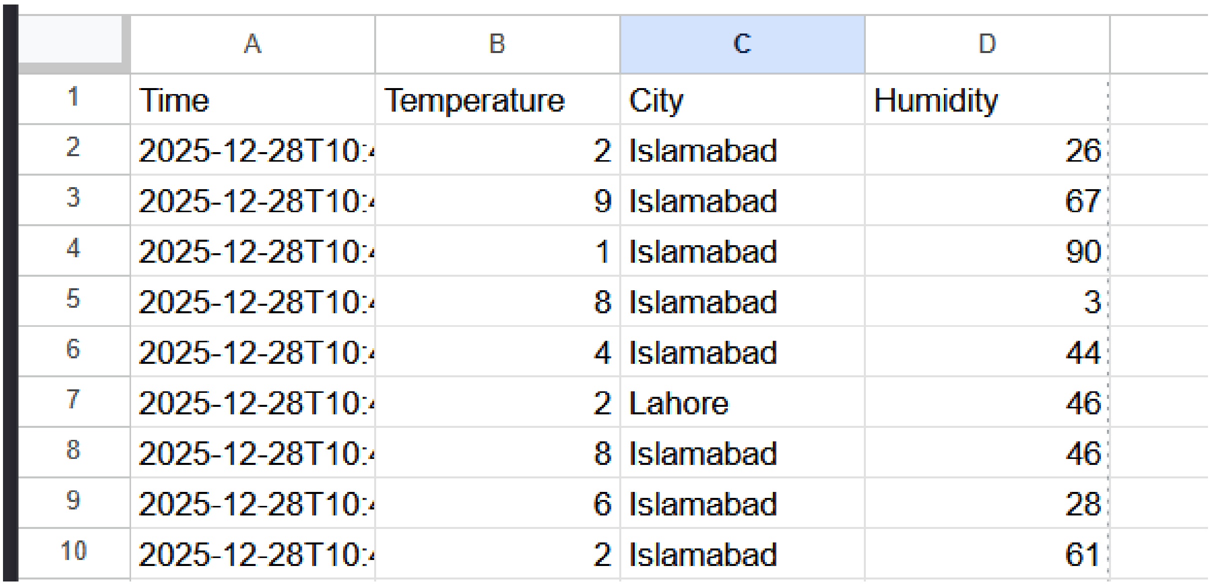
```
//Set msg.payload
msg.payload = [
    [
        time,
        randomVal1,
        selectedCity,
        randomVal2
    ]
];

return msg;
```

Connect your function node to a **GSheet** node to send the randomised data to your Google Sheet.
This can now be used to simulate temperature fluctuations throughout the day.

Similarly, you can play around with this to add in any amounts or type of simulated data at a specified interval.

Output:



	A	B	C	D
1	Time	Temperature	City	Humidity
2	2025-12-28T10:	2	Islamabad	26
3	2025-12-28T10:	9	Islamabad	67
4	2025-12-28T10:	1	Islamabad	90
5	2025-12-28T10:	8	Islamabad	3
6	2025-12-28T10:	4	Islamabad	44
7	2025-12-28T10:	2	Lahore	46
8	2025-12-28T10:	8	Islamabad	46
9	2025-12-28T10:	6	Islamabad	28
10	2025-12-28T10:	2	Islamabad	61

Full Example

The sheet used in the example is: Techwars Test Sheet 2
You can import this code into NodeRED (as shown in Guide-3) to try it out:

```
[
   {
      "id": "f6f2187d.f17ca8",
      "type": "tab",
      "label": "Flow 1",
      "disabled": false,
      "info": ""
   },
   {
      "id": "3cc11d24.ff01a2",
      "type": "comment",
      "z": "f6f2187d.f17ca8",
      "name": "NOTICE: This is an example that generates random data and sends it to
Google Sheets",
      "info": "",
      "x": 320,
      "y": 80,
      "wires": []
   },
   {
      "id": "3b4eee15e09f0787",
      "type": "inject",
      "z": "f6f2187d.f17ca8",
      "name": "START",
      "props": [
         {
            "p": "payload"
         },
         {
            "p": "topic",
            "vt": "str"
         }
      ],
      "repeat": "",
      "crontab": "",
      "once": false,
      "onceDelay": 0.1,
      "topic": "",
      "payload": "",
      "payloadType": "date",
      "x": 90,
      "y": 200,
      "wires": [
         [
            "7aa777e6b9ae7918"
         ]
      ]
   },
   {
      "id": "883653f535b62262",
      "type": "GSheet",
      "z": "f6f2187d.f17ca8",
      "creds": "90f6e151a24390cc",
      "method": "append",
        "action": "",
        "sheet": "1iqEik91nx7Pw0OTySyEEG3muw_LXFLSfyUovGniGEdo",
        "cells": "Sheet1!A:C",
        "flatten": false,
        "name": "Append to Google Sheet",
        "x": 550,
        "y": 200,
        "wires": [
            []
        ]
    },
    {
        "id": "7aa777e6b9ae7918",
        "type": "function",
        "z": "f6f2187d.f17ca8",
        "name": "Parse HTTP",
        "func": "const time = new Date();\nconst cities = ['Lahore', 'Islamabad',
'Karachi'];\n\n//Generate the random data\nconst randomVal1 = Math.floor(Math.random()
* 10) + 1;\nconst randomVal2 = Math.floor(Math.random() * 100) + 1;\n\n//Get a random
city\nconst randomCityIndex = Math.floor(Math.random() * cities.length);\nconst
selectedCity = cities[randomCityIndex];\n\n//Set msg.payload\nmsg.payload = [\n    [\n        
time,\n        randomVal1,\n        selectedCity,\n        randomVal2\n    ]\n];\n\nreturn msg;",
        "outputs": 1,
        "timeout": 0,
        "noerr": 0,
        "initialize": "",
        "finalize": "",
        "libs": [],
        "x": 290,
        "y": 200,
        "wires": [
            [
                "883653f535b62262"
            ]
        ]
    },
    {
        "id": "6c48fb729c65bc1c",
        "type": "http request",
        "z": "f6f2187d.f17ca8",
        "name": "GET from API",
        "method": "GET",
        "ret": "obj",
        "paytoqs": "ignore",
        "url": "https://pokeapi.co/api/v2/pokemon/eevee",
        "tls": "",
        "persist": false,
        "proxy": "",
        "insecureHTTPParser": false,
        "authType": "",
        "senderr": false,
        "headers": [],
        "x": 260,
        "y": 320,
        "wires": [
            []
        ]
    },
    {
        "id": "90f6e151a24390cc",
        "type": "gauth",
        "name": "techwars@big-genre-482208-i8.iam.gserviceaccount.com"
    },
    {
        "id": "c4e3940452d34979",
        "type": "global-config",
        "env": [],
        "modules": {
            "node-red-contrib-google-sheets": "1.1.2"
        }
    }
]
```

Useful Links

Random number generator in JavaScript ⁉️
APIs Explained (in 4 Minutes)
How to use APIs with Node-RED: OpenWeatherMap Example