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Solution

Simplest Solution

A possible solution is as follows:

```
using System;
class TempStats
{
    public string Description { get; set; }
    private double[] temp;
    public double[] Temp
    {
        set
        {
            bool sortedSoFar = true;
            int index = 0;

            while (index + 1 < value.Length && sortedSoFar)
            {
                if (value[index] > value[index + 1])
                    ↪ sortedSoFar = false;
                index++;
            }
            if (!sortedSoFar)
            {
                throw new ArgumentException("Your data is
                    ↪ not sorted.");
            }
            foreach (double i in value) {
                if (i < -128.6)
                {
                    throw new
                        ↪ ArgumentOutOfRangeException("That
                        ↪ is colder than the coldest ever
                        ↪ recorded on Earth!");
                    //
                    ↪ https://en.wikipedia.org/wiki/Lowest\_temperature\_recorded
                }
                else if (i > 134.1)
            }
        }
    }
}
```

```

        {
            throw new
                ↪ ArgumentOutOfRangeException("That
                ↪ is hotter than the hottest ever
                ↪ recorded on Earth!");
            //
            ↪ https://en.wikipedia.org/wiki/Highest\_temperature\_record
        }
    }
    temp = value;
}
}

public TempStats(double[] tempP, string desc)
{
    Temp = tempP;
    Description = desc;
}
public double Average
{
    get
    {
        double acc = 0;
        foreach (double i in temp)
        {
            acc += i;
        }
        return acc / temp.Length;
    }
}

public double Median {
    get
    {
        if(temp.Length %2 != 0)
        {
            return temp[(temp.Length-1) / 2];
        }
        else
        {
            return (temp[(temp.Length-1) / 2] +
                ↪ temp[temp.Length / 2]) / 2;
        }
    }
}
}

```

}

You can download it here¹

¹<https://princomp.github.io/code/projects/TempStats.zip>