

# 2017 Finals: Section 4 – Questions and Answers

# **Section 4: Data Diving**

This section counts towards the Judges' Prize - Available time is 60 minutes

# INTRODUCTION

You have been provided with daily weather data (rainfall, minimum temperature, maximum temperature) for the year 2010 for 18 major U.S. cities.

You have also been provided with Latitude, Longitude, Elevation and 2010 Population data for each of the 18 cities.

Full details can be found in the 'Cities' worksheet of the provided workbook.

# **TASK**

Bring this data to life. Show the patterns and information hiding in it. Build a model in Excel, interactive if you wish, that lets the user see the data in an interesting way.

Create an easy and fun way for the user to explore the weather data for their chosen city or cities. There are no fixed guidelines for what you should or should not focus on. Each judge will rank their top five favourite models based on their own subjective view of what they like.

#### **LOCATION DATA**

You have also been provided with a JPG map file showing a blank outline of the 48 contiguous US states, with the location of the 18 cities marked by number (miniature version included below). You may or may not choose to make use of this image in your work.

Alternatively, you may wish to use the Latitude and Longitude co-ordinates provided with some of Excel's newer map tools.

Or you may choose to not incorporate location data, or incorporate it in some other way. It is entirely up to you. Good luck!

Index	City	State
1	Atlanta	Georgia
2	Boston	Massachusetts
3	Chicago	Illinois
4	Dallas	Texas
5	Denver	Colorado
6	Detroit	Michigan
7	Houston	Texas
8	Kansas City	Missouri
9	Los Angeles	California
10	Miami	Florida
11	Minneapolis	Minnesota
12	New Orleans	Louisiana
13	New York	New York
14	Phoenix	Arizona
15	Salt Lake City	Utah
16	San Francisco	California
17	Seattle	Washington
18	Washington	DC