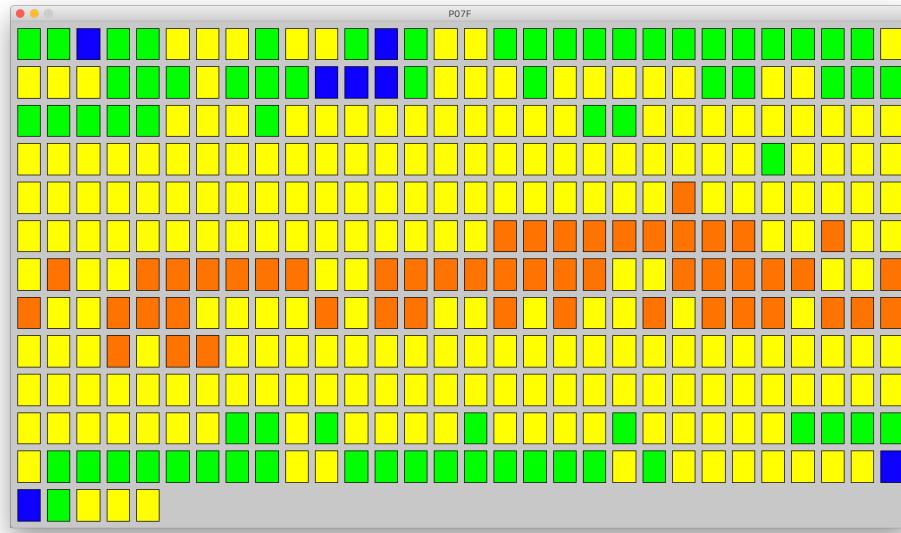


Assignment 2: Object Oriented Programming

In Practical 07 we worked with external data in CSV format to load and present weather data in a visual form as shown below.

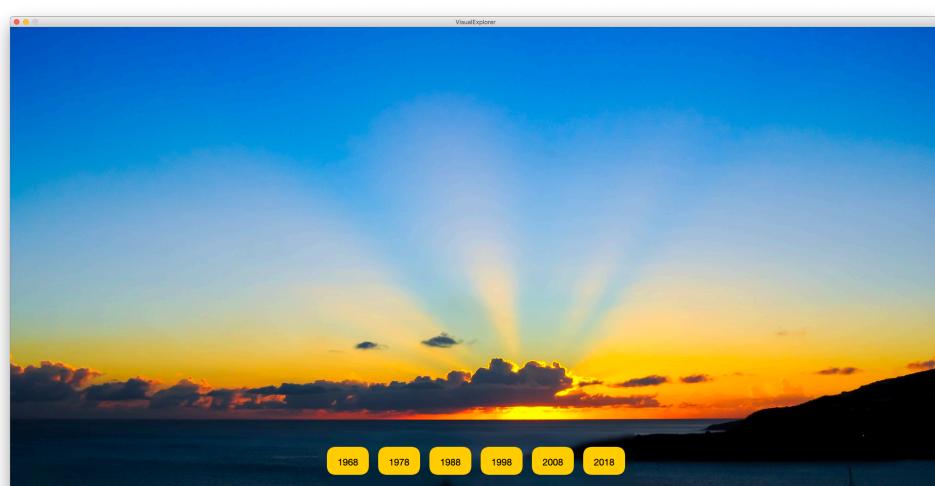


There were a number of limitations with this solution, including it used a simplified version of the original data set, it could only work with complete years.

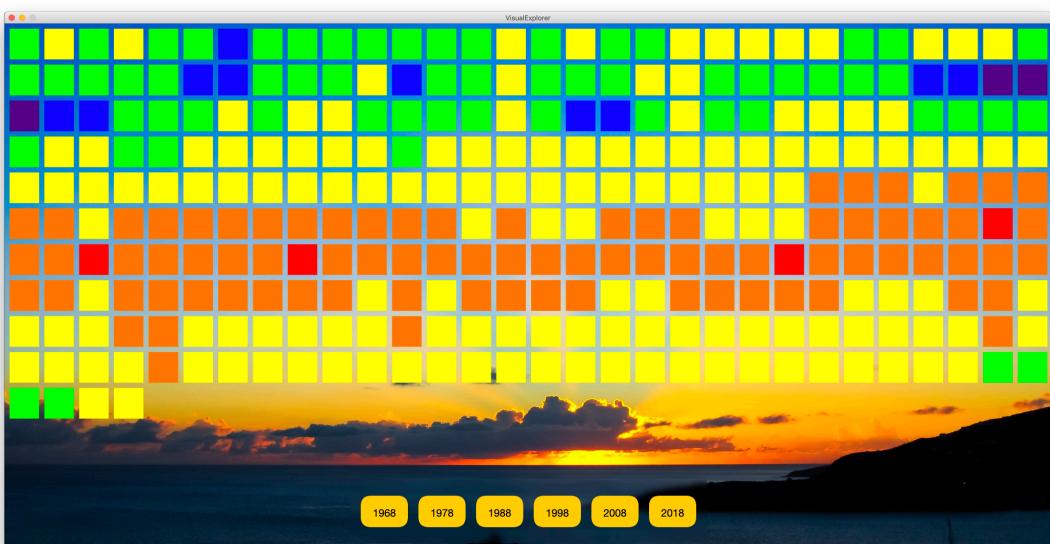
In this assignment you will refactor (the process of changing a software system in such a way that it does not alter the external behaviour of the code yet improves its internal structure) and re-purpose the code so that it can use the complete Met Éireann data set and present the data from different years. In addition your solution should consider the case where incomplete data is available (e.g. the current year).

User Interface

Your solution should use the ButtonPanel UI component provided to present an interface similar to the one shown below (not the background image is optional).



The user can navigate to each year using the buttons (1988 and 2018 are shown below).



Requirements for the Assignment

Write a Processing sketch to

- Load a complete Met Éireann daily weather data set from a file in CSV format and extract a variable of interest (the above examples used maximum daily temperature, but you may choose a different variable)
- There is no requirement that the user can pick the variable they want to examine – but you might consider how to include a requirement like this in your solution
- Select a subset of the data based on a selected year
- Present the selected year's data in visual form

Write a report

- Commenting on the functionality provided by the ButtonPanel UI component. In particular, do you agree with the implementation, would you restructure or change the interface it presents.
- Describe your choice regarding how you implemented the required functionality.

Resources

On the Authoring MOODLE site you will find

- A Processing sketch with examples of the ButtonPanel class a
- Po7 sketch with the full Met Éireann data set

Deliverables

- A Processing sketch implementing the required functionality
- The report

You may submit your assignment any time from **now to Friday 30th November 2018 at 23:00** via the Authoring MOODLE site.

To submit, put all required assignment material in a folder, which should have your student number as its name, compress the folder and submit it using the assignment (Assignment 01) submission link on the Authoring MOODLE site.

Authoring Assignment

