

World Happiness Report

[happiness-report.csv](#) includes the happiness level and life expectancy for each country in the world.

<u>Country</u>	<u>Happiness Level</u>	<u>Life Expectancy</u>
Finland	7.842	72
Malta	6.602	72.2
Kenya	4.607	70.704

Purpose

A program is required to create file listing all countries that have a happiness rating greater than the United Kingdom and the country with the longest life expectancy.

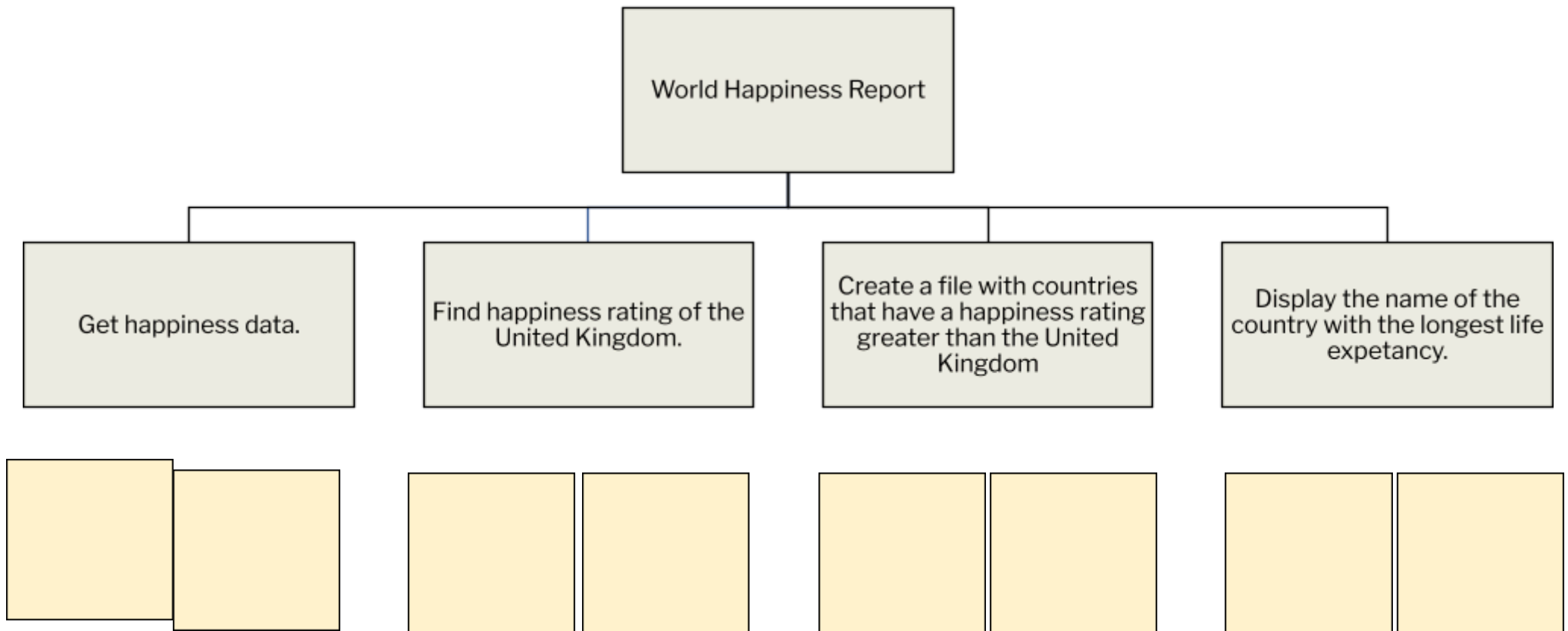
Functional Requirements

Using the information above identify the functional requirements of the program.

Input(s)	Process(es)	Output(s)

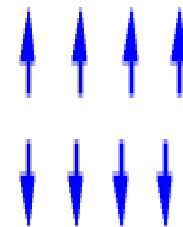
Design – Data Flow

A top-level design of the mains steps of the program is shown below. Data read from the CSV is stored in parallel arrays in the program.



Complete the diagram to show the data flow for the program. Your complete diagram should include:

- The required data (arrays/variables)
- Arrows to indicate the flow of the require data.



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Top Level Design

1. Get happiness data

IN

OUT country[], happiness[], lifeExpectancy[]

2. Find happiness rating of United Kingdom

IN country[], happiness[]

OUT ukHappy

3. Create a file with countries that have a happiness rating greater than the United Kingdom

IN country[], happiness[], ukHappy

OUT

4. Display the name of the country with the longest life expectancy

IN country[], lifeExpectancy[]

OUT

Refinements

2.1. Counter = 0

2.2. Flag = FALSE

2.3. While counter < Len(country[]) AND Flag = FALSE

2.4. IF country[counter] = 'United Kingdom'

2.5. ukHappy = happiness[counter]

2.6. Flag = TRUE

2.7. End If

2.8. counter + 1

2.9. End Loop

Using the problem description and design, implement the program in a language of your choice, Your program should:

- Be maintainable and modular
- Use a function to find and return the number of flights operated by each operator.
- Follow the design and the refinements provided.

This program requires the following file - [happiness-report.csv](#)