STAR WARS PLANETS STATS

Ultimate C# Masterclass Assignment

Overview

This app's purpose is to read data from the SWAPI (open Star Wars API) and present the information about planets from the Star Wars universe.	Console App + API use

Links:

https://swapi.dev/api/planets - SWAPI endpoint for getting the collection of planets

https://swapi.dev/documentation#planets - description of planets data from the SWAPI documentation

Main application workflow

When the application starts, it shall load the planets data from the following address: https://swapi.dev/api/planets
Then, the basic information about the loaded planets should be printed to the console. To format is at the developer's discretion **(See "Optional requirement: universal table printer" for more information)**. The following properties of a planet should be included: **Name, Population, Diameter, Surface water percentage**.
Then, the application prints: The statistics of which property would you like to see? population diameter surface water
The user must select one of the listed properties. If the string entered by the user does not match any of the given strings, "Invalid choice" should be printed.
Then, the application must identify the planets for which the selected property is the smallest and the largest and print them to the console. For example, if the user selects "population," then the following shall be printed: Max population is 200000000 (planet: Alderaan) Min population is 1000 (planet: Yavin IV)
Finally, the app prints "Press any key to close." and after that, the window closes.

Alternative data source

Since the SWAPI is an external service, we don't have control over whether it is available or not. In case it is down, the developer can use the mock data provider called **MockStarWarsApiDataReader**. Its source code can be found in the Git repository, as well as in the resources of the "Assignment - Star Wars Planets Stats - Description and requirements" lecture.

Optional requirement: universal table printer

How the list of planets is printed to the console is at the developer's discretion. An optional requirement for this assignment is to prepare a generic table printer which can accept a collection of objects of any type, and print all their properties in a tabular form. For example, this is how it could look for planets:

Name	Diameter	SurfaceWater	Population
Tatooine	10465	1	200000
Alderaan	12500	40	2000000000
Yavin IV	10200	8	1000
Hoth	7200	100	
Dagobah	8900	8	
Bespin	118000	0	6000000
Endor	4900	8	30000000
Naboo	12120	12	4500000000
Coruscant	12240		1000000000000
Kamino	19720	100	1000000000