Statement

1.) Is the code your own implementation, an adaptation of existing code, or a direct copy of existing code? Note that only changing the name of variables, functions and methods is still considered a direct copy.

a) Own implementation

2.) Please list all the external resources used, and how they were used. An external resource includes existing code, libraries, web pages, books, web forums, friends, etc. Note that this question is required even if you worked on your own implementation.

C4.5： https://en.wikipedia.org/wiki/C4.5_algorithm

How to decide split point： https://www.programsbuzz.com/article/decision-tree-variance-reduction

Pandas document： https://pandas.pydata.org/docs/index.html

Numpy document: https://numpy.org/doc/stable/user/index.html

Import dataset: https://archive.ics.uci.edu/

Pytest: https://docs.pytest.org/en/7.2.x/getting-started.html

Decision Tree, Information Entropy, Gain Ratio: Han, Jiawei Pei, Jian Tong, Hanghang. (2023). *Data Mining Concepts and Techniques (4th Edition).* Elsevier. Retrieved from https://app.knovel.com/hotlink/toc/id:kpDMCTE007/data-mining-concepts/data-mining-concepts