**Meaning of Data Alignment Intrinsic**

Data alignment being “intrinsic” means that **it is an inherent property of the operations performed on data, rather than something that can be explicitly controlled or manipulated by the programmer**. In other words, data alignment is a natural consequence of how data is stored and accessed in memory, driven by the underlying architecture and hardware.

In computer systems, data alignment refers to the process of organizing data in memory to optimize access and retrieval. This involves ensuring that data elements, such as integers or floating-point numbers, are stored at addresses that are multiples of their respective word sizes (e.g., 4-byte alignment for 32-bit integers).

When data alignment is intrinsic, it means that **the programming language, compiler, or runtime environment automatically handles data alignment for you, without requiring explicit instructions or directives from the programmer**. This is often the case with modern programming languages and libraries, which are designed to take advantage of the underlying hardware architecture and memory management systems.

For example, in languages like C and C++, the compiler will typically align data structures and variables according to the target platform’s memory alignment requirements, without requiring the programmer to specify explicit alignment directives.

Intrinsic data alignment has several benefits, including:

1. **Improved performance**: By aligning data naturally, the CPU can access and process data more efficiently, reducing memory access latency and increasing overall system performance.
2. **Simplified programming**: Programmers don’t need to worry about explicit data alignment, allowing them to focus on higher-level logic and algorithmic design.
3. **Portability**: Intrinsic data alignment ensures that programs written for one platform can be easily ported to another, without requiring modifications to handle different memory alignment schemes.

In summary, “data alignment is intrinsic” means that data alignment is an automatic process, driven by the underlying hardware and software architecture, rather than something that can be explicitly controlled by the programmer. This simplifies programming, improves performance, and enhances portability across different platforms.

Pandas support duplicate values and also support duplicate indexes. But it very stupid to choose or make that type of data. So either remove duplicates or just edit the values.