NumPy Data Types List

Numeric Data Types:

1. Integer Types:

   - np.int8: 8-bit integer (range: -128 to 127)
   - np.int16: 16-bit integer (range: -32,768 to 32,767)
   - np.int32: 32-bit integer (range: -2,147,483,648 to 2,147,483,647)
   - np.int64: 64-bit integer (range: -9,223,372,036,854,775,808 to 9,223,372,036,854,775,807)

2. Unsigned Integer Types:

   - np.uint8: 8-bit unsigned integer (range: 0 to 255)
   - np.uint16: 16-bit unsigned integer (range: 0 to 65,535)
   - np.uint32: 32-bit unsigned integer (range: 0 to 4,294,967,295)
   - np.uint64: 64-bit unsigned integer (range: 0 to 18,446,744,073,709,551,615)

3. Floating-Point Types:

   - np.float16: Half-precision floating-point (16 bits)
   - np.float32: Single-precision floating-point (32 bits)
   - np.float64 or np.double: Double-precision floating-point (64 bits)
   - np.longdouble: Extended-precision floating-point (platform-dependent)

4. Complex Number Types:

   - np.complex64: Complex number with 32-bit floats (real and imaginary parts)
   - np.complex128 or np.cdouble: Complex number with 64-bit floats
   - np.clongdouble: Complex number with extended precision

Boolean and String Data Types:

1. Boolean Type:

   - np.bool_: Boolean (True or False)

2. String Types:

   - np.str_: Fixed-length Unicode string

   - np.unicode_: Same as np.str_

3. Byte String Type:

   - np.bytes_: Fixed-length ASCII string

Object and Flexible Data Types:

1. Object Type:

   - np.object_: Generic Python object

2. Flexible Data Types:

   - np.void: Arbitrary raw data

Time-Related Data Types:

1. Datetime Type:

   - np.datetime64: Date and time

2. Timedelta Type:

   - np.timedelta64: Duration of time