|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | INTEGER | FLOAT | COMPLEX | STRING | SET | DICT | BOOLEAN | NONE |  |
| INTEGER |  |  |  |  |  |  |  |  |  |
| FLOAT |  |  |  |  |  |  |  |  |  |
| COMPLEX |  |  |  |  |  |  |  |  |  |
| STRING |  |  |  |  |  |  |  |  |  |
| SET |  |  |  |  |  |  |  |  |  |
| DICT |  |  |  |  |  |  |  |  |  |
| BOOLEAN |  |  |  |  |  |  |  |  |  |
| NONE |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

1. **Create a table to show which data conversions are possible and which are not.**

**A.**

**2.Research how to convert a positive integer to binary format. Vice versa also.**

A. Converting a Positive Integer to Binary Format:

It has divided into two methods they are:

1. Division Method: Divide the integer by 2 and keep track of the remainders. The remainders will form the binary representation.

2. Built-in Functions: Use built-in functions like bin() in Python, which converts an integer to a binary string.

Ex: int1=10

binary1=bin(int1)[2:]

print(binary1)

output: 1010

Converting a Binary String to a Positive Integer:

It has divided into two methods they are:

1. Multiplication Method: Multiply each binary digit by the corresponding power of 2 and sum the results.

2. Built-in Functions: Use built-in functions like int() in Python with base 2, which converts a binary string to an integer.

Ex: binary1="1010"

int1=int(binary1,2)

print(int1)

output: 10