Encoding & Decoding Fundamentals Lab

**Objective:**

Students will identify, decode, and understand different encoding systems such as Base16/32/64, Binary, Hex, Decimal, UTF-8, and ASCII to reveal a hidden message.

Challenge: "The Spy Message"

A captured communication from a spy agency contains the following encoded string:

“NDcgNDEgNTkgNTQgNDEgNGQgNDIgNTIgNDcgNDEgNTkgNDQgNDEgNDkgNDIgNTEgNDcgNDUgNTkgNTQgNDEgNGQgNDIgNTIgNDcgNDEgNTkgNTMgNDEgNGQgNDIgNTIgNDcgNDUgNTkgNDQgNDMgNGQgNGEgNTEgNDcgNDEgNTEgNDQgNDEgNGQgNGEgNTIgNDcgNDEgNTkgNTQgNDMgNGQgNDIgNTEgNDUgNDEgNTkgNDQgNDMgNGQgNGEgNTEgNDcgNDUgNTkgNTQgNDMgNGQgNGEgNDEgNDcgNDEgNTkgNTQgNDEgNGQgNGEgNTIgNDcgNDUgNTkgNTQgNDMgNDkgNDIgNTEgNDcgNDUgNTkgNDQgNDMgNGQgNDIgNTIgNDcgNDUgNTkgNTMgNDEgNGQgNDIgNTIgNDcgNDUgNTkgNDQgNDMgNGQgNGEgNTIgNDcgNDUgNTEgNDQgNDEgNGQgNGEgNTIgNDcgNDUgNTkgNDQgNDEgNGQgNGEgNTEgNDUgNDEgNTkgNDQgNDMgNGQgNGEgNTEgNDcgNDUgNTkgNTQgNDEgNGQgNDIgNDEgNDcgNDEgNTkgNTQgNDMgNGQgNDIgNTEgNDcgNDUgNTkgNDQgNDEgNDkgNDIgNTEgNDcgNDEgNTkgNTQgNDEgNGQgNDIgNTEgNDcgNDEgNTkgNTEgM2QgM2QgM2QgM2Q=”

Task: **Decode the message step by step** and understand the encoding method used in each step.

**Solution**: <https://gchq.github.io/CyberChef/>