

Data Representation - Activities

1 BASICS

Activity:

Create a binary representation system for the days of the week.

Discussion:

What were your objectives?

How did you achieve those objectives?

2 GOING DEEPER

Activity:

Create a binary representation system for JMU phone numbers.

All U.S. phone numbers have a 3-digit area code, a 3-digit exchange, and a 4-digit extension. All JMU phone numbers have an area code of 540. All JMU office phones have an exchange of 568. All JMU dormitory phones have an exchange of 612.

Discussion:

What were your objectives?

How did you achieve those objectives?

3 COMPRESSION

Activity:

Create a compression scheme for a RAW representation of images.

Discussion:

Lossy vs. lossless

Lossless algorithms