# CE205 Data Structures

# Week-1

## Course Plan and Communication, Course Plan and Communication, Introduction to Linear & Non-Linear Data Structure and Performance Analysis, Implementing Pointer and Objects for Data and Variables Basic of ASN.1 / BER TLV / PER TLV

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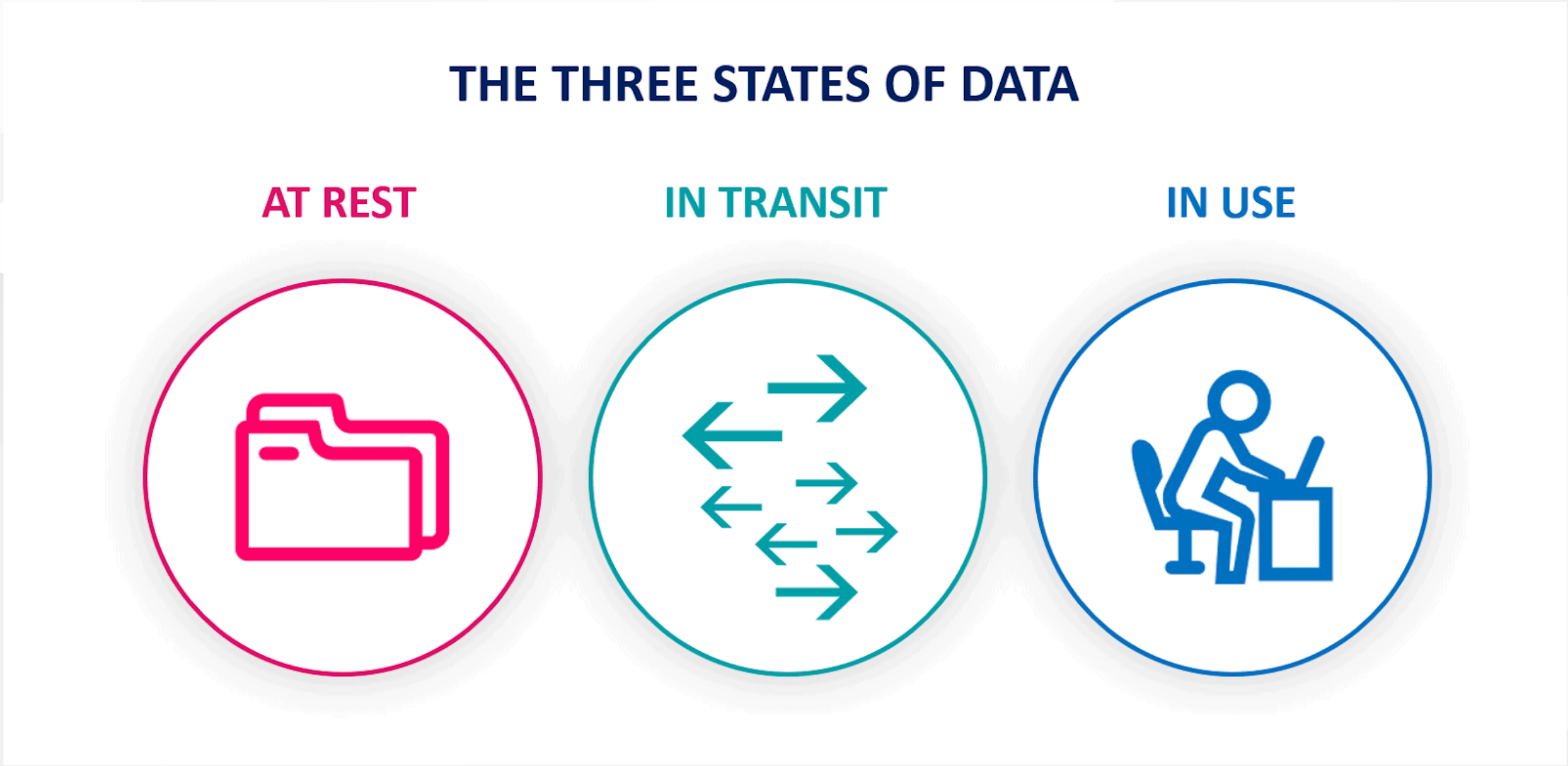
<iframe width=700, height=500 frameBorder=0 src="../ce205-week-1-intro.md_slide.html"></iframe>

# Introduction to Data Structures



Data-in-use

- Data in use - Wikipedia

Data-in-transit

- Data in transit - Wikipedia

Data-at-rest

- Data at rest - Wikipedia

Performance Analysis

- Data Structures Tutorials - Performance Analysis with examples

Space Complexity

- Data Structures Tutorials - Space Complexity with examples

Time Complexity

- Data Structures Tutorials - Time Complexity with examples

## Data and Variables

- C++ Data Types

## Linear & Non-Linear Data Structures

- Data Structures Tutorials - Linear and Non-linear types
- Data Structure and Types

## Implementing Pointer and Objects

- Check [CS50 Pointer Notes](../files/CS50 Modified.pdf)
- Week 0 - CS50

- ASN.1 / BER TLV / PER TLV
  - http://lionet.info/asn1c/download.html
  - GitHub - ucoruh/asn1c-wsl-sample: ASN.1 C WSL and Windows Execution, Debugging and Code Generation Sample

- Sample Standard for ASN.1 Usage
  - https://www.etsi.org/deliver/etsi_ts/125400_125499/125413/04.09.00_60/ts_125413v040900p.pdf

- Payment BER TLV Parser Sample
  - TLV Utilities
  - https://paymentcardtools.com/

Week-1 End

# Week-1 End