CE205 Data Structures Week-1

Introduction to Data Structure

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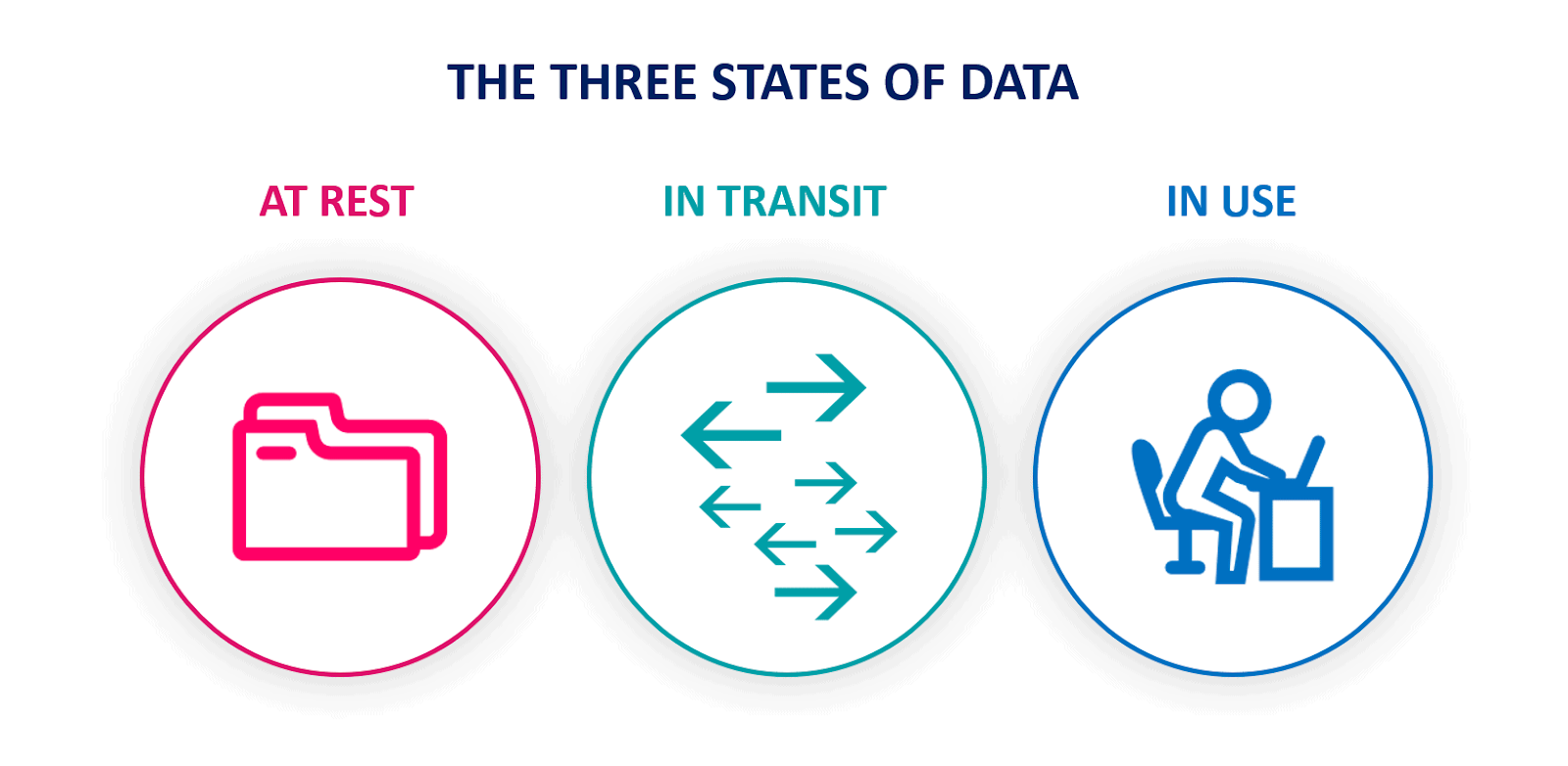
# CE205 Data Structures

# 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

Download [DOC](ce205-week-1-intro.md_doc.pdf), [SLIDE](ce205-week-1-intro.md_slide.pdf), [PPTX](ce205-week-1-intro.md_slide.pptx)

## Introduction to Data Structures



Data-in-use

* [Data in use - Wikipedia](https://en.wikipedia.org/wiki/Data_in_use)

Data-in-transit

* [Data in transit - Wikipedia](https://en.wikipedia.org/wiki/Data_in_transit)

Data-at-rest

* [Data at rest - Wikipedia](https://en.wikipedia.org/wiki/Data_at_rest)

Performance Analysis

* [Data Structures Tutorials - Performance Analysis with examples](http://www.btechsmartclass.com/data_structures/performance-analysis.html)

Space Complexity

* [Data Structures Tutorials - Space Complexity with examples](http://www.btechsmartclass.com/data_structures/space-complexity.html)

Time Complexity

* [Data Structures Tutorials - Time Complexity with examples](http://www.btechsmartclass.com/data_structures/time-complexity.html)

Data and Variables

* [C++ Data Types](https://www.tutorialspoint.com/cplusplus/cpp_data_types.htm)

Linear & Non-Linear Data Structures

* [Data Structures Tutorials - Linear and Non-linear types](http://www.btechsmartclass.com/data_structures/linear-non-linear-data-structures.html)
* [Data Structure and Types](https://www.programiz.com/dsa/data-structure-types)

Implementing Pointer and Objects

* Check [CS50 Pointer Notes](../files/CS50%20Modified.pdf)
* [Week 0 - CS50](https://cs50.harvard.edu/college/2021/fall/weeks/0/)
* 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](https://github.com/ucoruh/asn1c-wsl-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://emvlab.org/tlvutils/?data=6F1A840E315041592E5359532E4444463031A5088801025F2D02656E)
  + https://paymentcardtools.com/

Week-1 End

# Week-1 End