Comparison of Digital Vita and Vivo Data Models

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BACKGROUND

- Development and implementation of research networking systems a strong trend in biomedicine
- Future landscape most likely to consist of a variety of systems of different provenance
- Interoperability at the data layer important first consideration
- NCRR-funded VIVOWeb project primarily intended as a data platform
- Digital Vita, a CV-based research networking application developed at the University of Pittsburgh, as potential VIVOWeb end user application

OBJECTIVE

- Perform an initial comparison of the respective data architectures and models to assess feasibility of implementing Digital Vita as an application on top of VIVOWeb

METHODS

- Analysis of Digital Vita 2.0 and VIVO 1.0 models
- Class by class comparison of the two models
- Comparison at the attribute level of intersecting classes

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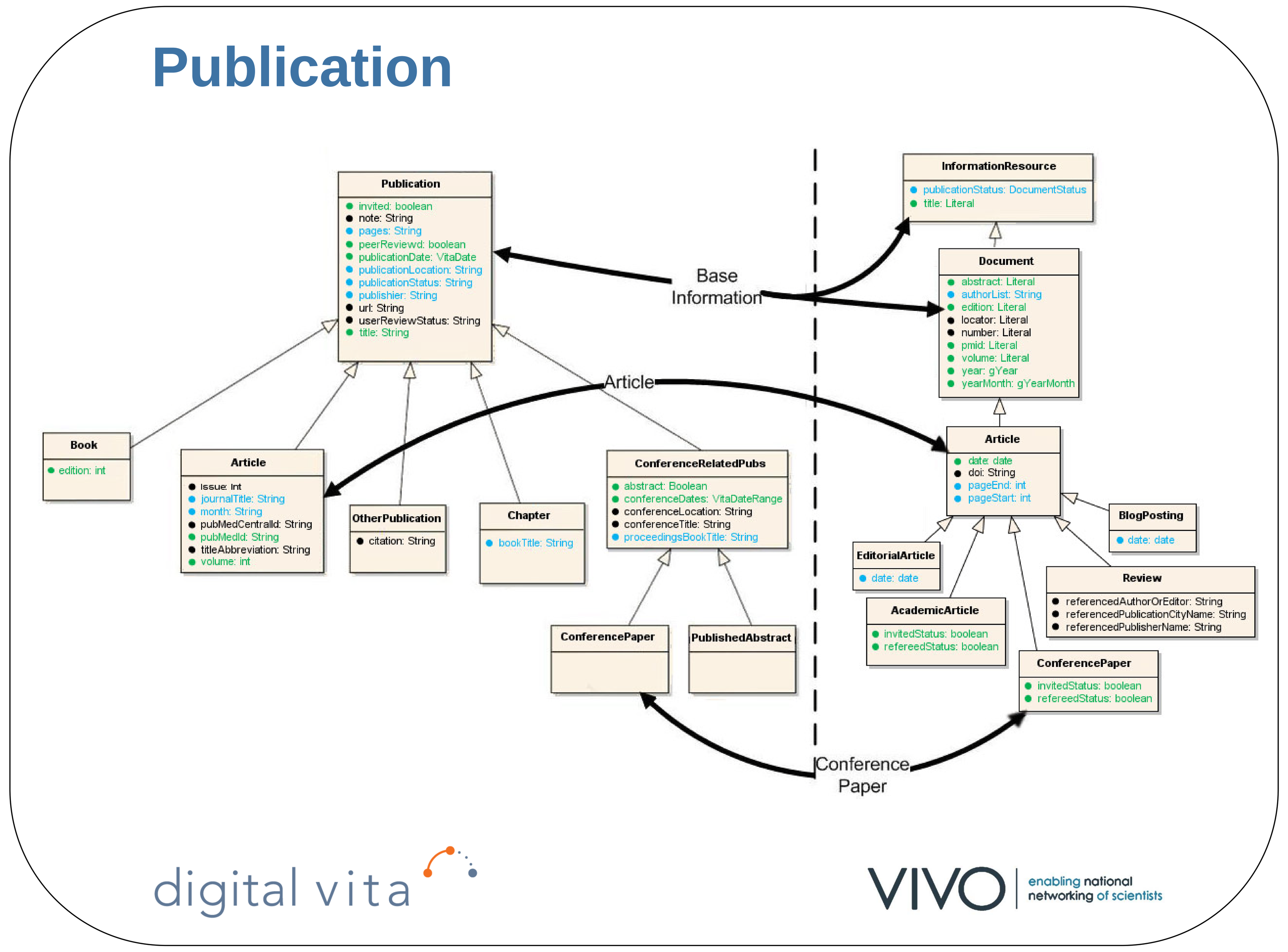
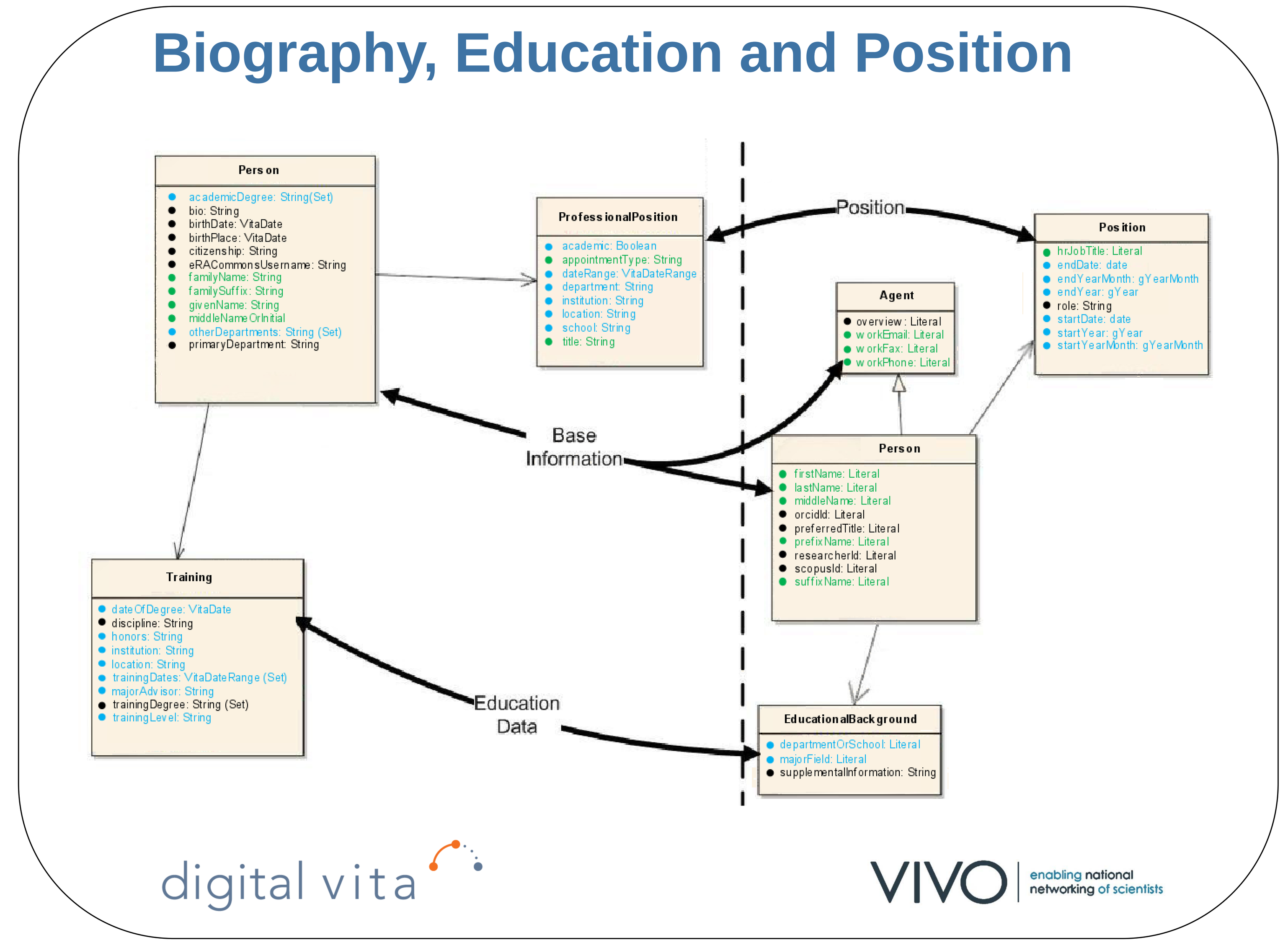
COMPARISON OF SELECTED CLASSES AND ATTRIBUTES





Legend: ● Exact Match ● Similar ● No Match

Results

- Digital Vita and Vivo domain models intersect on the following information:
  - Bibliographic
  - Education
  - Collaboration
  - Biographic
  - Activity
- The models diverge with regard to:
  - Geographic location [VIVO]
  - Organization [VIVO]
  - Colleague status [DV]
- Vivo's domain model based on several standard ontologies (e.g. FOAF, Dublin Core and Bibontology), Digital Vita's on a custom information model
- Certain overlap at the field level, less so at the child/parent class levels
- Data fields, types and structure to be reconciled during mapping
- Mapping complicated by internal and external evolution of domain models

CONCLUSION

- One to one data mapping between parts of VIVO and Digital Vita possible
- Overlap in person's bibliographic, biographic, education and activity information
- Preferred approach: standardized service calls that encapsulate data structure

Please take one: