

## JavaScript Object Notation

- nested data
- less verbose than [[XML]]

- **JSON Data Model**

- Data exchange format for **semi-structured data**

- **Not as verbose as XML**  
(especially for arrays)



- Popular format (e.g., Twitter)

```
{ "students": [  
  { "id": 1, "courses": [  
    { "id": "INF.01017UF", "name": "DM" },  
    { "id": "706.550", "name": "AMLS" } ] },  
  { "id": 5, "courses": [  
    { "id": "706.520", "name": "DIA" } ] },  
  ] }
```

## JSON in [[SQL]]

- JSON can be used as datatype
  - JSON (text)
  - JSONB (binary)
- built-in functions for creating JSON from table
  - bidirectional

```
SELECT row_to_json(t) FROM  
  (SELECT Fname, Lname  
   FROM Students) t
```

- specialised operators for JSON tree traversal and data extraction
  - –>..... get array element
  - –>>... get array element as text

```
SELECT Fname, Lname,  
  Doc->students->>id  
FROM Students
```

- built-in functions
  - json\_each
  - ...