



# Question 2: MongoDB JSON Schema/neo4j Updating

IT-NSQ1Y-S22

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Explain the elements of the  
JSON Schema in MongoDB and  
demonstrate how it is used



# JSON Schema

- ❖ JSON Schema is a content specification language used for validating the structure of a JSON data. It helps to specify the objects and what values are valid inside the object's properties.

```
{ json schema }  
  
{  
  "type": "object",  
  "properties": {  
    "first_name": { "type": "string" },  
    "last_name": { "type": "string" },  
    "birthday": { "type": "string", "format": "date" },  
    "address": {  
      "type": "object",  
      "properties": {  
        "street_address": { "type": "string" },  
        "city": { "type": "string" },  
        "state": { "type": "string" },  
        "country": { "type": "string" }  
      }  
    }  
  }  
}  
✓  
  
{  
  "first_name": "George",  
  "last_name": "Washington",  
  "birthday": "1732-02-22",  
  "address": {  
    "street_address": "3200 Mount Vernon Memorial Highway",  
    "city": "Mount Vernon",  
    "state": "Virginia",  
    "country": "United States"  
  }  
}
```

# Elements of JSON Schema

| Sr.No. | Keyword & Description  |
|--------|--|
| 1      | <b>\$schema</b><br>The \$schema keyword states that this schema is written according to the draft v4 specification.  |
| 2      | <b>title</b><br>You will use this to give a title to your schema.  |
| 3      | <b>description</b><br>A little description of the schema.  |
| 4      | <b>type</b><br>The type keyword defines the first constraint on our JSON data: it has to be a JSON Object.   |
| 5      | <b>properties</b><br>Defines various keys and their value types, minimum and maximum values to be used in JSON file.   |
| 6      | <b>required</b><br>This keeps a list of required properties.   |
| 7      | <b>minimum</b><br>This is the constraint to be put on the value and represents minimum acceptable value.   |
| 8      | <b>exclusiveMinimum</b><br>If "exclusiveMinimum" is present and has boolean value true, the instance is valid if it is strictly greater than the value of "minimum". |

|    |  |
|----|--|
| 9  | <b>maximum</b><br>This is the constraint to be put on the value and represents maximum acceptable value.   |
| 10 | <b>exclusiveMaximum</b><br>If "exclusiveMaximum" is present and has boolean value true, the instance is valid if it is strictly lower than the value of "maximum". |
| 11 | <b>multipleOf</b><br>A numeric instance is valid against "multipleOf" if the result of the division of the instance by this keyword's value is an integer.         |
| 12 | <b>maxLength</b><br>The length of a string instance is defined as the maximum number of its characters.  |
| 13 | <b>minLength</b><br>The length of a string instance is defined as the minimum number of its characters.  |
| 14 | <b>pattern</b><br>A string instance is considered valid if the regular expression matches the instance successfully.   |



# How to use JSON Schema

- [JSON Schema Validator - Newtonsoft](#)

Present your hand-in to course  
assignment 3 with a focus on  
updating the data

