| **Topic** | **Elementary** | **Basic** | **Advanced** | **Expert** |
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| **OData v2.0** | | | | |
| **General points** | 1. Know what a **Service Metadata Document** is, its purpose. 2. Know the aspects of **Entity Data Model** (EDM), ability to explain and name the purpose of each:    1. Entity Type.    2. Entity.    3. Entity Key.    4. Entity Set.    5. Association.    6. Association Set.    7. Navigation Property.    8. Function Import. 3. Know the **Primitive Data Types**, their expected format in request and purpose / use cases:    1. Edm.Boolean.    2. Edm.Decimal.    3. Edm.DateTime.    4. Be aware of two kinds of **Types**:       1. Structured.       2. Primitive. 4. Be acquainted with OData [glossary](https://www.odata.org/documentation/odata-version-2-0/terminology/); | 1. Know the aspects of **Entity Data Model** (EDM), ability to explain and name the purpose of each:    1. Complex Type.    2. Entity Container. 2. Know the **Primitive Data Types**, their expected format in request and purpose / use cases:    1. Edm.DateTimeOffset.    2. Edm.Guid.    3. Edm.Binary.    4. Edm.Byte.    5. Edm.Double.    6. Edm.Single.    7. Edm.Int16.    8. Edm.Int32.    9. Edm.Int64.    10. Edm.SByte.    11. Edm.Time.    12. Null. | 1. Know what a **Service Document** is, its purpose. | \_empty\_ |
| **URI Conventions** | 1. Know the **main components** of the OData **URI**:    1. Scheme.    2. Host.    3. Port.    4. ServiceRoot.    5. ResourcePath.    6. QueryOptions. 2. Know the **resource path** aspects:    1. Addressing the entities:       1. Collection.       2. KeyPredicate.       3. NavPropSingle.       4. NavPropCollection.       5. ComplexType.       6. Property.    2. Addressing service operations (functional imports). 3. Know the **query options** aspects:    1. System query options:       1. $orderby.       2. $top.       3. $skip.       4. $filter:          1. Logical operators.          2. Arithmetic operators.       5. $expand.       6. $format.       7. $select.       8. $count.    2. Service operation (a.k.a Function Import) parameters. | 1. Know the **resource path** aspects:    1. Addressing links between entries. 2. Know the **query options** aspects:    1. System query options:       1. $filter:          1. Grouping operator.          2. Functions.       2. $inlinecount.       3. $value.       4. $links.    2. Custom query options. | \_empty\_ | \_empty\_ |
| **Operations / data requesting** | 1. Know how to **retrieve collections**. 2. Know how to **retrieve individual** **properties**. 3. Know how to **retrieve** the **metadata** document. 4. Know how to **perform CRUD** operations:    1. Create new Entries;    2. Read entities;    3. Update entries;    4. Update individual properties;    5. Delete entries; 5. Know how to **invoke service operations** (a.k.a Function Import). | 1. Know how to **retrieve an individual property raw value**. | \_empty\_ | \_empty\_ |
| **Batch processing** | 1. Understand what batch processing is and what **benefits** it brings. | 1. Know the batch request HTTP **headers** aspects. 2. Know the batch request **body** aspects:    1. ChangeSet.    2. Referencing requests in Change Set (Content-ID). 3. Know the **format** of a **batch response**:    1. Headers.    2. Body. | 1. Know how the **batch processing** works **in depth**. 2. Know how BE processes **change sets**. | \_empty\_ |
| **JSON format representation** | 1. Know how the **primitive types** are **represented**. 2. Know how the **collections** of entries are **represented** (formatted):    1. “d” property.    2. “results” property.    3. “\_\_count” property.    4. “\_\_next” property. 3. Know how the **individual entries** are **represented**:    1. \_\_metadata, uri, type, etag properties. 4. Know how the **property values** are **represented**. 5. Know how the **сomplex types** properties are **represented**. 6. Know how the **raw value** of a **property** is **represented**. | 1. Know what is a “**deferred**” content, know when the property is added to the response. 2. Know how the **inline representation of** **associated entries** is constructed. 3. Know how the **links** are **represented**. 4. Know how the **results from service operations** are **represented**. | \_empty\_ | \_empty\_ |
| **Misc** | \_empty\_ | \_empty\_ | 1. Understand how the **concurrency contro**l is implemented. Know the purpose of ETags. Be aware of **optimistic locking**. 2. Be aware how the **method tunneling through POST** is implemented. | \_empty\_ |