Tech Module Exercises: 0 / 0

DWH concepts

* Mini Projects

|  |  |  |
| --- | --- | --- |
| S.No. | Mini-project Description | Topics Covered |
| 1 |  |  |

* + In this TECH Module, you are expected to complete the below Mini-Project(s)
* Topics to Learn

To complete the above project, you will need to lean the below technical topics-

* + **D****WH Concepts**

Learning Material for **DWH Concepts**

Below is the learning material that you are expected to read along with completion of the hands-on assignments. The material is mentioned is the order in which it should be read.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Material Title | Material Location | Type of Material | Classification |
| 1. | DWH Overview & Need | <https://www.tutorialspoint.com/dwh/dwh_data_warehousing.htm> | Web | Mandatory |
| 2. | DWH Overview & Need video | <https://www.youtube.com/watch?v=J326LIUrZM8> | Video | Mandatory |
| 3. | DWH Overview Recap | <https://www.youtube.com/watch?v=9gOw3joU4a8> | Video | Suggestive |
| 4. | OLTP v/s DWH Applications | <https://www.guru99.com/oltp-vs-olap.html> | Web | Mandatory |
| 5. | Data Marts | <https://www.guru99.com/data-mart-tutorial.html> | Web | Mandatory |
| 6. | Data warehouses | <https://en.wikipedia.org/wiki/Data_mart> | Web | Mandatory |
| 7. | Architecture & Components | <https://www.tutorialspoint.com/dwh/dwh_architecture.htm> | Web | Mandatory |
| 8. | Slowly Changing Dimension | <https://www.youtube.com/watch?v=XqdZF0DJpUs> | Web | Mandatory |

* + - Hands-on Assignments for **DWH Concepts**
      * No Hands-on Assignments for this topic
  + **Data Modeling Concepts**

Learning Material for **Data Modeling Concepts**

Below is the learning material that you are expected to read along with completion of the hands-on assignments. The material is mentioned is the order in which it should be read.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Material Title | Material Location | Type of Material | Classification |
| 1. | Database Systems | <https://www.guru99.com/what-is-dbms.html> | Web | Mandatory |
| 2. | Database Systems video | <https://www.youtube.com/watch?v=acNmHwl9iPs> | Video | Mandatory |
| 3. | DM Context & Overview | <https://en.wikipedia.org/wiki/Data_modeling> | Web | Mandatory |
| 4. | DM Term & Concepts | <https://www.youtube.com/watch?v=tR_rOJPiEXc> | Video | Mandatory |
| 5. | DWH Data Modeling | <https://www.guru99.com/data-modelling-conceptual-logical.html> | Web | Mandatory |
| 6. | Star V/s SnowFlake Schema | <https://www.youtube.com/watch?v=KUwOcip7Zzc> | Video | Mandatory |

* + - Hands-on Assignments for **Data Modeling Concepts**
      * No Hands-on Assignments for this topic
  + **ETL Concepts and OLAP concepts**

Learning Material for **ETL Concepts and OLAP concepts**

Below is the learning material that you are expected to read along with completion of the hands-on assignments. The material is mentioned is the order in which it should be read.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Material Title | Material Location | Type of Material | Classification |
| 1. | ETL Overview | <http://www.complexsql.com/etl-definition/> | Web | Mandatory |
| 2. | ETL Overview | <https://www.complexsql.com/etl-concepts/> | Web | Suggestive |
| 3. | ETL Overview | <https://www.youtube.com/watch?v=7MOU1l30lXs> | Video | Suggestive |
| 4. | Introduction to BIDW Architecture | <https://www.guru99.com/overview-of-sap-bi-architecture.html> | Web | Mandatory |
| 5. | Data Access overview | <https://www.michaelleisch.com/biarch/> | Web | Mandatory |
| 6. | BW Architecture | <https://www.youtube.com/watch?v=zTs5zjSXnvs> | Video | Mandatory |
| 7. | OLAP Overview | <https://www.guru99.com/online-analytical-processing.html> | Web | Mandatory |

* + - Hands-on Assignments for **ETL Concepts and OLAP concepts**
      * No Hands-on Assignments for this topic
* Learning Outcomes

Upon completion of this TECH Module, you should be able to:

* + Understand DWH concepts
  + Understand different Data Model
  + Understand dimension model
  + Understand different types of Schemas
  + Understand the concepts of ETL and OLAP
* Sample Questions

After gaining knowledge of the above module, below are the possible interview questions that you should be able to confidently answer.

|  |  |
| --- | --- |
| No. | Questions |
| 1 | What is DWH? |
| 2 | What are Measures and Fact? |
| 3 | What is Star Schema & Snow Fake Schema |
| 4 | What is Data mart ? |
| 5 | Difference between Datamart and DataWarehouse? |
| 6 | What is ODS? |
| 7 | OLAP Vs OLTP |
| 8 | What is SCD type 1 type 2 and type 3 |