Mind Map for Azure Data Factory Graph Created by Shankar Wagh. LinkedIn Azure Data Factory Full Course Objective Work with pipelines, linked **Build ETL/ELT Understand ADF** Use data flows and Integrate external APIs, Data fundamentals services, datasets pipelines real-time triggers Lake, and other services What is ADF Definition **Functions** Cloud-based ETL/ELT service for Connects to various data Moves data between Performs transformations using data movement and transformation by sources (SQL, API, files, Mapping Data Flows (based on source and Spark) etc.) destination Azure **Core Concepts** Linked Service Pipeline Dataset Reference to the specific data (table, file, Group of activities forming a data Connection to a data source or destination workflow etc.) Resources Used Azure Storage Account GitHub API **Azure Data Factory** Instance Used to pull sample data via Used as Azure Data Lake Gen2 for source and destination Used to build pipelines HTTP containers Core Activities Covered-A If Condition Activity **Copy Activity** Get Metadata Activity ForEach Activity Components Use Case Output Use Case Use Use Case Case Linked Branch logic Source Sink File Retrieve Last based on modified Move metadata Iterate dataset services dataset names conditions (e.g., through a data about dates collection files or file name from (e.g., list of patterns) folders source files) to sink Core Activities Covered-B Wait Activity **Data Flow Activity** Set Variable Filter Activity Delete Execute Activity Pipeline Activity Activity Use Case Use Case Use Case Use Case Use Case Use Case Filter items in a Perform Introduce a Assign value transformations Remove collection before pause in to a variable Invoke using visual pipeline processing them files or child execution for a (e.g., in ForEach) for use within interface (powered folders pipeline logic by Spark) defined time pipelines from from a storage parent pipeline **Real-Time Scenarios** Copy CSV from one Pull data from external Copy only 'fact' Dynamic file File filtering using Get HTTP and store in Data files conditionally container to another naming and folder Metadata + If Condition + Lake paths ForEach **Triggers** Event-based Trigger Schedule Trigger **Tumbling Window Trigger** Window-based, stateful pipeline Triggered by events like file arrival in Execute pipeline at defined time intervals trigger storage **Data Redundancy Models** LRS ZRS GRS **GZRS** Locally Redundant Storage (3 Zone Redundant Storage (across Geo Redundant Storage Geo + Zone Redundant Storage copies in single region) availability zones) (across regions) **Azure Portal Overview** URL Navigation Resource Group https://portal.azure.com Resource Groups Logical container for related Azure resources Home Resources **Tools & Services** GitHub (HTTP connector) Azure Data Lake Gen2 ADF GUI-based Development **Azure Data Factory CSV** Data Files **Outcomes** Connect multiple Use conditional logic and Build pipelines Handle real-time data Prepare for ADF interview from scratch transformation and certifications data sources movement Helpful Links Ansh Lamba's YouTube GitHub Samples Azure Docs Click Here Click Here Click Here