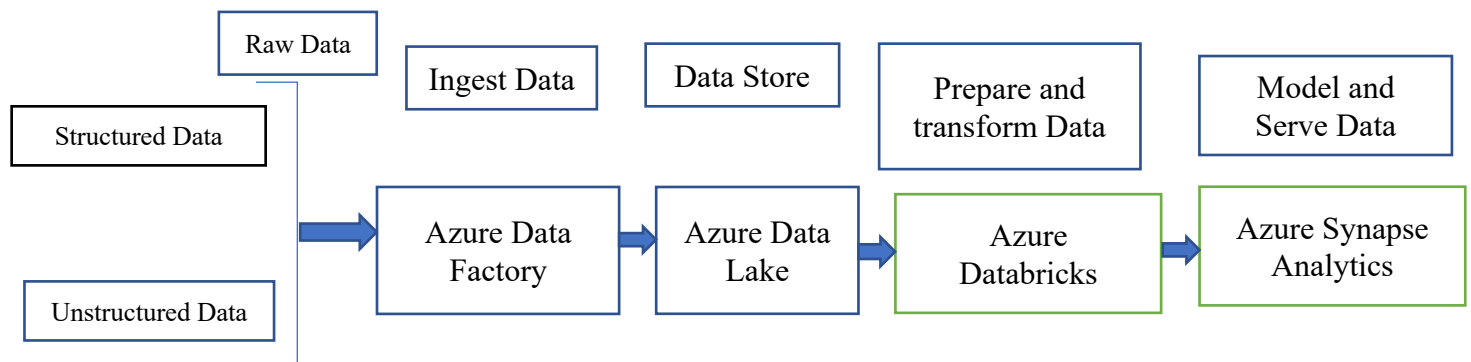Assignment Five



**Azure Data Factory**: ETL service, that helps to transfer and orchestrate the flow of data. As a result, the first orange box should be Azure Data Factory since it is a service to Ingest raw data both structured and unstructured data from various sources.

**Azure Data Lake**: is one of big data storage service to store both structured and unstructured data.

**Azure Databricks**: is cloud-based notebook service on top of apache spark. It can be found standalone or integrated in Microsoft Azure. It is main purpose is to load, preprocess data as well as transform data using different programming languages based on user preference like Scala, python, java etc.

**Azure Synapse Analytics**: Analytics service for both enterprise Datawarehouse as well as big data. It is a platform for querying and analyzing data via different query languages like SQL, python etc.

**Azure Cosmos DB**: For modern app development, Azure Cosmos DB is a fully managed NoSQL database.

2. [Marks: 5] Explain how Stream Analytics works in Azure.

Ingest data from various sources such as IoT devices, different applications, financial transactions etc. into Azure storge solutions such as Event hub, IoT hub or blob storage. Azure Stream Analytics service will analyze the data in real time. ASA includes reference data (SQL, Blob storage), Azure ML service. Deliver the stream data to various services such as Event Hub services for Alert and Actions, Power BI service for dynamic dashboarding, Azure synapse Analytics for data warehousing as well as SQL DB, Azure Data Lake, Cosmos DB, Blob storage for storge and archival.