Leveraging Analytics Services

Questions	Notes
the bigger picture of data warehouse	**what's data warehouse ?** - a data warehouse is a data storage solution that aggregates massive amounts of historical data from disparate sources **what are the benefits of a data warehouse?** - data warehouse support querying , reporting , analytics and buisness intelligence They are not used for transicition processing
Amazon redshift	- Redshift is scalable data warehouse solution - data warehouse solution - improves speed and efficiency - handles exabytes-scale data **In the real world:** - data consolidation : when you need to consolidate multuple data source for reporting - relational databases: when you want to run database that doesn't require real time transaction processing (insert , update and delete)
the bigger picture of analytics	There are several services that allow you to gain deeper insignts , enhance decision-making , and act in real time to what your data is telling you
Athena	- Query srvice - analyze s3 data using sql - pay per query - considered serverless
Glue	- prepares your data for analytics - Extract, transfor , load (ETL) service - prepare and load data - Helps to better understand your data
Kinesis	- analyze real-time streaming data - suppports video , audio , apps logs , websites clickstream , and IOT
Elastic Mapreduce (EMR)	- process big data - analyze data using Hadoop - works with big data frameworks
Data pipeline	- Data pipeline helps you move data between compute and storage services running either on aws or on-premises - moves data at specific intervals - moves data based on conditions - sends notifications on success or failure
QuickSight	- helps you visualize your data - build interactive dashboards - Embed dashboards in your apps
analytics in the real world	- search data in s3: Athena helps you query historical data stored in s3 as if they were relational data using standard sql - Kinesis helps you analyze logs in near real ti,e for application monitoring or Fraud dataction