**Pig:**

**1. Why Map-reduce program is needed in Pig Programming?**

* Pig Latin queries are converted to Map and Reduce jobs and hence to take advantage of parallel processing map-reduce program is needed.

**2. What are advantages of pig over Map Reduce?**

* Development time is highly reduced in pig.
* Easier to follow the commands and provides better expressiveness in the transformation of data at every step.
* It is quite effective for unstructured and messy large datasets. Actually, Pig is one of the best tools to make the large unstructured data to structure.

**3. What is pig engine and what is its importance?**

Pig engine acts as an interpreter between Pig Latin script and map reduce jobs, It creates environment to execute pig scripts into series of map reduce jobs in a parallel manner.

**4. What are the modes of Pig execution?**

* Local Mode - To run Pig in local mode, you need access to a single machine; all files are installed and run using your local host and file system. ...
* Map-reduce Mode - To run Pig in map reduce mode, you need access to a Hadoop cluster and HDFS installation.

**5. What is grunt shell in Pig?**

The Grunt shell of Apache Pig is mainly used to write Pig Latin scripts. Prior to that, we can invoke any shell commands in grunt shell.

**6. What are the features of Pig Latin language?**

* Simple programming: it is easy to code, execute and manage the program.
* Better optimization: system can automatically optimize the execution as per the requirement raised.
* Extensive nature: Used to achieve highly specific processing tasks.

**7. Is Pig Latin commands case sensitive?**

Pig Latin cannot decide whether it is case-sensitive. Keywords in Pig Latin are not case-sensitive; for example, LOAD is equivalent to load. But relation and field names are. So A = load 'foo'; is not equivalent to a = load ‘foo’; UDF names are also case-sensitive, thus COUNT is not the same UDF as count.

**8. What is a data flow language?**

In a dataflow language, you have a stream of datawhich is passed from instruction to instruction to be processed. Conditional execution jumps and procedure calls route the data to different instructions.