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

Pig Latin is Pig's language that allows developers to sort, join, parse, transform and structured, unstructured and semi-structured data in Map Reduce all while using a language similar to SQL versus Java. Map-reduce is needed in pig programming to perform various aggregation operations without writing any java code.

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

* Map-reduce requires a developer to write a mapper and reducer code in java, irrespective of whether developer is aware of java or not. Java code dependency is there.
* Code complexity is eliminated by pig that exists in map-reduce. If client requirement changes then in that case too much of mapper and reducer code need to be changed in case of map reduce but this can be easily achieved by pig.
* Code maintainability is also eliminated by pig that exists in map-reduce. It will take too much time to understand the java code, if someone else had written that in map-reduce.

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

Apache Pig is a high-level procedural language for querying large semi-structured data sets using Hadoop and the MapReduce Platform. Pig simplifies the use of Hadoop by allowing SQL-like queries to a distributed dataset. Pig provides high-level language that can be used by Data Analysts and Data Scientists.

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

Pig has below mentioned modes of execution 🡪

* Map reduce mode
* Local Mode

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

Grunt shell is the shell where we will run our pig latin statements.

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

Pig Latin is a command based scripting language and designed specifically for data transformation and flow.

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

Yes, Pig latin statements are case sensitive.

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

In a dataflow language, you have a stream of data which is passed from instruction to instruction to be processed. Conditional execution, jumps and procedure calls route the data to different instructions. This could be seen as data flowing through otherwise static instructions like how electrical signals flow through circuits or water flows through pipes. A dataflow "if" statement would route the data to the correct branch.