# When we are running different types of performance tests we need to monitor the servers apart from regular performance metrics which will give client, we need to consider below components of servers for identifying root cause of problems.

* **Webserver:**

While monitoring the webserver, we have to check for the Number of hits per sec (directly proportional to Throughput) Number of Active sessions available for your application

**2)   Application server:**

CPU utilization -- Indicates the CPU consumption in the application

Memory Consumption --Indicates the total memory consumed for application

 Heap Memory -- Object level memory utilization

 Thread Dump -- Gives the problems in states of the threads which is related for CPU problems

 Heap Dump--Gives the problems in states of the objects which is related for Memory problems

Garbage collector -- Gives the problems related to cleaning of unused references

**3)   Database server**

 Query processing time -- Time taken to process the query from client to server and back to client.

Number of connections established for Database (Connection pooling)--Number of database connections and its significance

Checking index is present for table or not -- For fast processing of data , we use indexes

Database level dead locks -- When ever pages are struck in loading due to concurrency issues

**Database Level:**

 Tables and its Locks -- How the information in the database is maintained

Procedures -- Sequence of steps to process the SQL data for getting desired results

Triggers -- Automatic processed which is available for timely events

Stored Procedures --Pre-compiled data for processing the results when executed

Functions --Reusable codes used for fetching the desired results

**Pre-Requisite of DB Analysis:**

1)      Before starting the load test it is advisable to take the AWR Report.

2)      After completion of the load test it is mandatory (mostly for DBA) to take AWR report.

3)      Comparison of Reports will be done in the Report level (Data comparison will be happen)