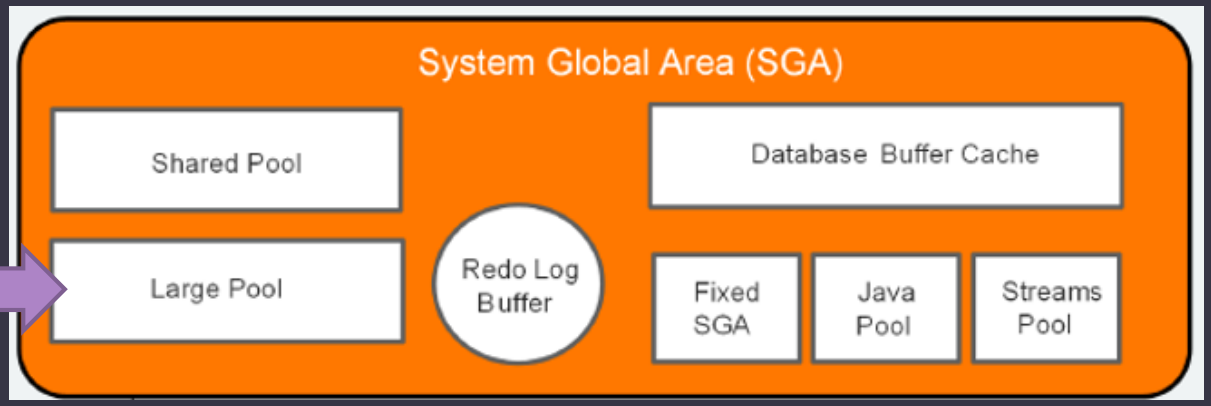
Database Instance

System Global Area (SGA) Part 2

What we will learn in this lecture?

- Large Pool
- Java Pool
- Fixed SGA
- Streams Pool
- Sizing SGA and PGA

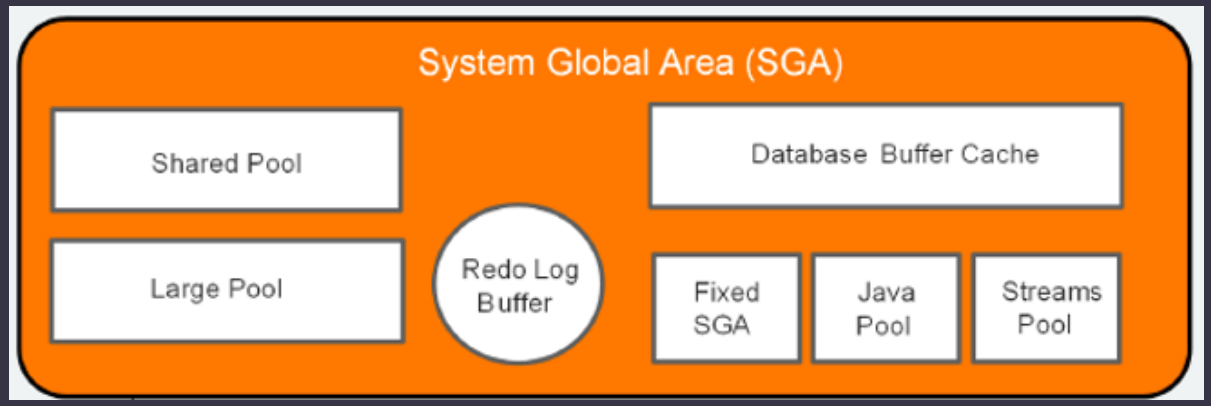


Large Pool

- contains memory used by special oracle features like:
  - Shared server processes
  - Parallel queries

```
SELECT /*+ PARALLEL(emp,4) */ * FROM emp;
```

  - Database backup and recovery operations
  - I/O server processes



Java Pool

- Parsing of Java code and scripts

Streams Pool

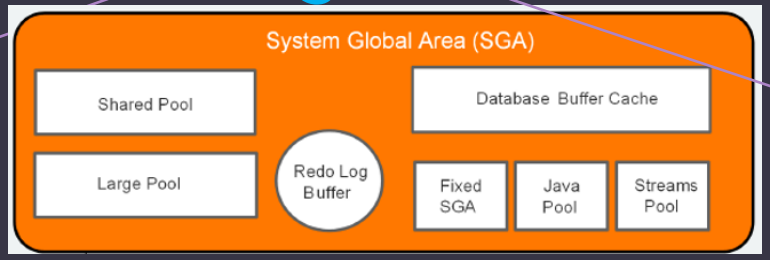
- Provides memory for oracle streams processes

Fixed SGA

- contains general information about the state of the database and the instance

Sizing SGA and PGA

Sizing SGA



1. Using Automatic Shared Memory Management **ASMM**

SGA_TARGET:
actual memory in use by the current SGA

SGA_MAX_SIZE
the largest amount of memory that will be available for the SGA in the instance

Oracle Database automatically distributes this memory among the various SGA components to ensure the most effective memory utilization.

ALTER SYSTEM SET SGA_TARGET=value [SCOPE={SPFILE|MEMORY|BOTH}]

2. Using Manual Shared Memory Management

you must manually configure several SGA component sizes

A. Set the MEMORY_TARGET initialization parameter to 0.

B. Set the SGA_TARGET initialization parameter to 0.

C. manually configure SGA component

Sizing SGA and PGA

Sizing PGA

1. Using Automatic PGA Memory Management

PGA_AGGREGATE_TARGET:
total amount of PGA memory allocated across all database server processes and background processes

Oracle strongly recommends that you leave automatic PGA memory management enabled.

2. Using Manual PGA Memory Management

you must manually configure several PGA component sizes

Not recommended

Thank You