Server Design

My server package has two child packages **servlet** and **filter**.

In **servlet** package, there are 3 servlet classes and one connection pool class:

ResortServlet: handles requests matching url “/resorts/*”. It gets a connection from the connection pool and get/insert data into database upon request.

SkiersServlet: handles requests matching url "/skiers/*". It gets a connection from the connection pool and get/insert data into database upon request.

StatisticsServlet: handles requests for getting max and mean latency for different endpoints. It queries the latency data from database, calculate the mean and max latency and delete the queried entries in database.

ConnectionPool: providing a connection pool between server and database. Data source configuration is defined here.

In **filter** package, there are two filter classes and two statistics classes:

ResortsStatisticsFilter: preprocess requests matching url “/resorts/*”. It specifically records the latency for each request, store the value and request url/type into a list of records in **ResortsStatistics** object. When the records number reaches 500, it writes the records into database table “statistics” and clear the list of records in **ResortsStatistics**.

ResortsStatistics: contains a synchronized list of record strings for temporary storage of the latency for each request for resort endpoints.

SkierStatisticsFilter: preprocess requests matching url "/skiers/*". It works the same way as **ResortsStatisticsFilter.**

SkierStatistics: contains a synchronized list of record strings for temporary storage of the latency for each request for skier endpoints.