

```
maximumSizes) {
                                                                                maximumSizes) {
          this.maximumSizes = Sets.newLinkedHashSet(maximumSizes);
                                                                                     this.maximumSizes = Sets.newLinkedHashSet(maximumSizes);
37
                                                                          39
38
                                                                          40
          return this;
                                                                                     return this;
39
                                                                          41
        }
                                                                                   }
40
                                                                          42
41
     CacheBuilderFactory withExpirations(Set<ExpirationSpec>
                                                                          43
                                                                                + CacheBuilderFactory withExpireAfterWrites(Set<DurationSpec>
     expirations) {
                                                                                durations) {
         this.expirations = Sets.newLinkedHashSet(expirations);
                                                                          44
42
                                                                                + this.expireAfterWrites =
                                                                                Sets.newLinkedHashSet(durations);
                                                                          45
                                                                                     return this;
                                                                          46
                                                                                + }
                                                                          47
                                                                          48
                                                                                + CacheBuilderFactory
                                                                                withExpireAfterAccesses(Set<DurationSpec> durations) {
                                                                          49
                                                                                     this.expireAfterAccesses =
                                                                                Sets.newLinkedHashSet(durations);
                                                                          50
                                                                                     return this;
                                                                          51
                                                                                + }
                                                                          52
                                                                          53
                                                                                + CacheBuilderFactory withRefreshes(Set<DurationSpec>
                                                                                durations) {
                                                                          54
                                                                                    this.refreshes = Sets.newLinkedHashSet(durations);
                                                                          55
43
          return this;
                                                                                     return this;
                                                                          56
44
        }
                                                                                   }
45
                                                                          57
        CacheBuilderFactory withKeyStrengths(Set<Strength>
                                                                                   CacheBuilderFactory withKeyStrengths(Set<Strength>
                                                                          58
46
     keyStrengths) {
                                                                                keyStrengths) {
          this.keyStrengths = Sets.newLinkedHashSet(keyStrengths);
                                                                                     this.keyStrengths = Sets.newLinkedHashSet(keyStrengths);
47
                                                                          59
48
                                                                          60
     Preconditions.checkArgument(!this.keyStrengths.contains(Streng
                                                                                Preconditions.checkArgument(!this.keyStrengths.contains(Streng
     th.SOFT));
                                                                                th.SOFT));
          return this;
                                                                                     return this;
49
                                                                          61
50
        }
                                                                          62
                                                                                   }
51
                                                                          63
        CacheBuilderFactory withValueStrengths(Set<Strength>
                                                                                   CacheBuilderFactory withValueStrengths(Set<Strength>
52
                                                                          64
     valueStrengths) {
                                                                                valueStrengths) {
                                                                                     this.valueStrengths =
          this.valueStrengths =
53
                                                                          65
     Sets.newLinkedHashSet(valueStrengths);
                                                                                Sets.newLinkedHashSet(valueStrengths);
          return this;
                                                                                     return this;
54
                                                                          66
        }
                                                                                   }
55
                                                                          67
56
                                                                          68
57
        Iterable<CacheBuilder<Object, Object>>
                                                                          69
                                                                                   Iterable<CacheBuilder<Object, Object>>
     buildAllPermutations() {
                                                                                buildAllPermutations() {
                                                                          70
58
          @SuppressWarnings("unchecked")
                                                                                     @SuppressWarnings("unchecked")
59
          Iterable<List<Object>> combinations =
                                                                          71
                                                                                     Iterable<List<Object>> combinations =
     buildCartesianProduct(concurrencyLevels,
                                                                                buildCartesianProduct(concurrencyLevels,
60
              initialCapacities, maximumSizes, expirations,
                                                                          72
                                                                                         initialCapacities, maximumSizes, expireAfterWrites,
                                                                                expireAfterAccesses, refreshes,
     keyStrengths, valueStrengths);
                                                                          73
                                                                                         keyStrengths, valueStrengths);
61
          return Iterables.transform(combinations,
                                                                           74
                                                                                     return Iterables.transform(combinations,
                                                                           75
62
                                                                                         new Function<List<Object>, CacheBuilder<Object,</pre>
              new Function<List<Object>, CacheBuilder<Object,</pre>
     Object>>() {
                                                                                Object>>() {
                @Override public CacheBuilder<Object, Object>
                                                                                           @Override public CacheBuilder<Object, Object>
63
                                                                          76
     apply(List<Object> combination) {
                                                                                apply(List<Object> combination) {
                                                                                             return createCacheBuilder(
64
                  return createCacheBuilder(
                                                                          77
                      (Integer) combination.get(∅),
                                                                           78
65
                                                                                                  (Integer) combination.get(∅),
                      (Integer) combination.get(1),
                                                                           79
66
                                                                                                  (Integer) combination.get(1),
67
                      (Integer) combination.get(2),
                                                                          80
                                                                                                  (Integer) combination.get(2),
                                                                           81
68
                      (ExpirationSpec) combination.get(3),
                                                                                                  (DurationSpec) combination.get(3),
                      (Strength) combination.get(4),
                                                                           82
                                                                                                  (DurationSpec) combination.get(4),
69
                      (Strength) combination.get(5));
                                                                           83
                                                                                                  (DurationSpec) combination.get(5),
70
                                                                                +
                                                                           84
                                                                                                  (Strength) combination.get(6),
                                                                           85
                                                                                                  (Strength) combination.get(7));
71
                                                                          86
                }
                                                                                           }
              });
                                                                          87
72
                                                                                         });
                                                                          88
73
                                                                                   }
        }
                                                                          89
74
        private static final Function<Object, Optional<?>>
                                                                                   private static final Function<Object, Optional<?>>
75
                                                                          90
     NULLABLE_TO_OPTIONAL =
                                                                                NULLABLE_TO_OPTIONAL =
            new Function<Object, Optional<?>>() {
                                                                                       new Function<Object, Optional<?>>() {
                                                                          91
76
              @Override public Optional<?> apply(@Nullable Object
                                                                                         @Override public Optional<?> apply(@Nullable Object
77
                                                                          92
     obj) {
                                                                                obj) {
                return Optional.fromNullable(obj);
                                                                                           return Optional.fromNullable(obj);
78
                                                                          93
```

```
79
                                                                            94
             };
                                                                                        };
 80
                                                                            95
 81
                                                                            96
         private static final Function<Optional<?>, Object>
                                                                                    private static final Function<Optional<?>, Object>
 82
                                                                            97
      OPTIONAL_TO_NULLABLE =
                                                                                 OPTIONAL_TO_NULLABLE =
 83
             new Function<Optional<?>, Object>() {
                                                                            98
                                                                                        new Function<Optional<?>, Object>() {
               @Override public Object apply(Optional<?> optional) {
                                                                                          @Override public Object apply(Optional<?> optional) {
 84
                                                                            99
                 return optional.orNull();
                                                                                             return optional.orNull();
                                                                           100
 85
               }
                                                                           101
 86
             };
                                                                                        };
 87
                                                                           102
 88
                                                                           103
         private Iterable<List<Object>> buildCartesianProduct(Set<?)</pre>
                                                                                    private Iterable<List<Object>> buildCartesianProduct(Set<?)</pre>
 89
                                                                           104
      >... sets) {
                                                                                 >... sets) {
           List<Set<Optional<?>>> optionalSets =
                                                                                      List<Set<Optional<?>>> optionalSets =
 90
                                                                           105
                                                                                 Lists.newArrayListWithExpectedSize(sets.length);
      Lists.newArrayListWithExpectedSize(sets.length);
                                                                                      for (Set<?> set : sets) {
           for (Set<?> set : sets) {
 91
                                                                           106
             Set<Optional<?>> optionalSet =
                                                                                        Set<Optional<?>> optionalSet =
 92
                                                                           107
                 Sets.newLinkedHashSet(Iterables.transform(set,
                                                                                            Sets.newLinkedHashSet(Iterables.transform(set,
 93
                                                                           108
                                                                                 NULLABLE_TO_OPTIONAL));
      NULLABLE_TO_OPTIONAL));
 94
             optionalSets.add(optionalSet);
                                                                           109
                                                                                        optionalSets.add(optionalSet);
 95
                                                                           110
           Set<List<Optional<?>>> cartesianProduct =
                                                                                      Set<List<Optional<?>>> cartesianProduct =
 96
                                                                           111
      Sets.cartesianProduct(optionalSets);
                                                                                 Sets.cartesianProduct(optionalSets);
           return Iterables.transform(cartesianProduct,
                                                                                      return Iterables.transform(cartesianProduct,
97
                                                                           112
               new Function<List<Optional<?>>, List<Object>>() {
                                                                           113
                                                                                          new Function<List<Optional<?>>, List<Object>>() {
98
                 @Override public List<Object> apply(List<Optional<?</pre>
                                                                                            @Override public List<Object> apply(List<Optional<?</pre>
 99
                                                                           114
      >> objs) {
                                                                                 >> objs) {
                   return Lists.transform(objs,
                                                                                              return Lists.transform(objs,
                                                                           115
100
      OPTIONAL TO NULLABLE);
                                                                                 OPTIONAL TO NULLABLE);
101
                 }
                                                                           116
                                                                                            }
               });
                                                                                          });
102
                                                                           117
                                                                                    }
103
                                                                           118
104
                                                                           119
105
                                                                           120
         private CacheBuilder<Object, Object> createCacheBuilder(
                                                                                    private CacheBuilder<Object, Object> createCacheBuilder(
                                                                           121
106
             Integer concurrencyLevel, Integer initialCapacity,
                                                                                        Integer concurrencyLevel, Integer initialCapacity,
      Integer maximumSize,
                                                                                 Integer maximumSize,
                                                                           122
107
             ExpirationSpec expiration, Strength keyStrength,
                                                                                        DurationSpec expireAfterWrite, DurationSpec
      Strength valueStrength) {
                                                                                 expireAfterAccess, DurationSpec refresh,
                                                                           123
                                                                                        Strength keyStrength, Strength valueStrength) {
                                                                           124
108
109
                                                                           125
           CacheBuilder<Object, Object> builder =
                                                                                      CacheBuilder<Object, Object> builder =
      CacheBuilder.newBuilder();
                                                                                 CacheBuilder.newBuilder();
                                                                           126
110
           if (concurrencyLevel != null) {
                                                                                      if (concurrencyLevel != null) {
             builder.concurrencyLevel(concurrencyLevel);
                                                                                        builder.concurrencyLevel(concurrencyLevel);
111
                                                                           127
112
                                                                           128
           if (initialCapacity != null) {
                                                                                      if (initialCapacity != null) {
                                                                           129
113
             builder.initialCapacity(initialCapacity);
                                                                           130
                                                                                        builder.initialCapacity(initialCapacity);
114
           }
115
                                                                           131
116
                                                                           132
                                                                                      if (maximumSize != null) {
           if (maximumSize != null) {
                                                                           133
117
             builder.maximumSize(maximumSize);
                                                                                        builder.maximumSize(maximumSize);
118
                                                                           134
                                                                                      }
           }
           if (expiration != null) {
                                                                                      if (expireAfterWrite != null) {
119
                                                                           135
             if (expiration.expireAfterAccessMillis != null) {
                                                                                        builder.expireAfterWrite(expireAfterWrite.duration,
120
                                                                           136
                                                                                 expireAfterWrite.unit);
121
      builder.expireAfterAccess(expiration.expireAfterAccessMillis,
      TimeUnit.MILLISECONDS);
122
                                                                          137
           if (expiration.expireAfterWriteMillis != null) {
123
                                                                           138
                                                                                      if (expireAfterAccess != null) {
124
                                                                           139
                                                                                        builder.expireAfterAccess(expireAfterAccess.duration,
      builder.expireAfterWrite(expiration.expireAfterWriteMillis,
                                                                                 expireAfterAccess.unit);
      TimeUnit.MILLISECONDS);
125
                                                                           140
                                                                                      }
           }
                                                                           141
                                                                                      if (refresh != null) {
                                                                           142
                                                                                        builder.refreshInterval(refresh.duration,
                                                                                 refresh.unit);
                                                                           143
126
                                                                                      }
127
           if (keyStrength != null) {
                                                                           144
                                                                                      if (keyStrength != null) {
128
             builder.setKeyStrength(keyStrength);
                                                                           145
                                                                                        builder.setKeyStrength(keyStrength);
           }
129
                                                                           146
           if (valueStrength != null) {
                                                                                      if (valueStrength != null) {
                                                                           147
130
             builder.setValueStrength(valueStrength);
                                                                                        builder.setValueStrength(valueStrength);
131
                                                                           148
           }
                                                                                      }
132
                                                                           149
```

```
134
                                                                          151
         }
                                                                                    }
135
                                                                          152
136
      - static class ExpirationSpec {
                                                                          153
                                                                                 + static class DurationSpec {
137
           @Nullable
                                                                          154
                                                                                      private final long duration;
138
           private final Long expireAfterAccessMillis;
                                                                          155
                                                                                      private final TimeUnit unit;
           @Nullable
139
140
           private final Long expireAfterWriteMillis;
141
142
           private ExpirationSpec(Long expireAfterAccessMillis, Long
      expireAfterWriteMillis) {
143
             Preconditions.checkArgument(
144
                 expireAfterAccessMillis == null ||
      expireAfterWriteMillis == null);
             this.expireAfterAccessMillis = expireAfterAccessMillis;
145
             this.expireAfterWriteMillis = expireAfterWriteMillis;
146
147
148
                                                                          156
149
           public static ExpirationSpec afterAccess(long
                                                                          157
                                                                                      private DurationSpec(long duration, TimeUnit unit) {
      afterAccess, TimeUnit unit) {
             return new ExpirationSpec(unit.toMillis(afterAccess),
                                                                          158
150
                                                                                        this.duration = duration;
                                                                                +
      null);
                                                                                        this.unit = unit;
                                                                          159
151
           }
                                                                          160
                                                                                      }
152
                                                                          161
153
                                                                          162
                                                                                      public static DurationSpec of(long duration, TimeUnit
           public static ExpirationSpec afterWrite(long afterWrite,
      TimeUnit unit) {
                                                                                 unit) {
                                                                                        return new DurationSpec(duration, unit);
154
           return new ExpirationSpec(null,
                                                                          163
      unit.toMillis(afterWrite));
155
                                                                          164
           }
                                                                                      }
156
                                                                          165
157
                                                                          166
                                                                                      @Override
           @Override
158
           public int hashCode() {
                                                                          167
                                                                                      public int hashCode() {
159
                                                                          168
                                                                                        return Objects.hashCode(duration, unit);
             return Objects.hashCode(expireAfterAccessMillis,
      expireAfterWriteMillis);
                                                                          169
160
           }
                                                                                      }
                                                                          170
161
162
           @Override
                                                                          171
                                                                                      @Override
           public boolean equals(Object o) {
                                                                          172
                                                                                      public boolean equals(Object o) {
163
164
             if (o instanceof ExpirationSpec) {
                                                                          173
                                                                                        if (o instanceof DurationSpec) {
               ExpirationSpec that = (ExpirationSpec) o;
                                                                          174
                                                                                          DurationSpec that = (DurationSpec) o;
165
               return Objects.equal(this.expireAfterAccessMillis,
                                                                                          return unit.toNanos(duration) ==
166
                                                                          175
                                                                                that.unit.toNanos(that.duration);
      that.expireAfterAccessMillis)
167
                   && Objects.equal(this.expireAfterWriteMillis,
      that.expireAfterWriteMillis);
168
             }
                                                                          176
                                                                                        }
                                                                          177
169
             return false;
                                                                                        return false;
170
           }
                                                                          178
171
                                                                          179
           @Override
                                                                                      @Override
173
           public String toString() {
                                                                          181
                                                                                      public String toString() {
             return Objects.toStringHelper(this)
174
                                                                          182
                                                                                        return Objects.toStringHelper(this)
175
                  .add("expireAfterAccessMillis",
                                                                          183
                                                                                            .add("duration", duration)
      expireAfterAccessMillis)
176
                                                                          184
                 .add("expireAfterWriteMillis",
                                                                                            .add("unit", unit)
      expireAfterWriteMillis)
177
                                                                          185
                  .toString();
                                                                                            .toString();
178
           }
                                                                          186
                                                                                      }
179
         }
                                                                          187
                                                                                    }
180
       }
                                                                          188
                                                                                  }
```

150

return builder;

0 comments on commit 6e80e8b

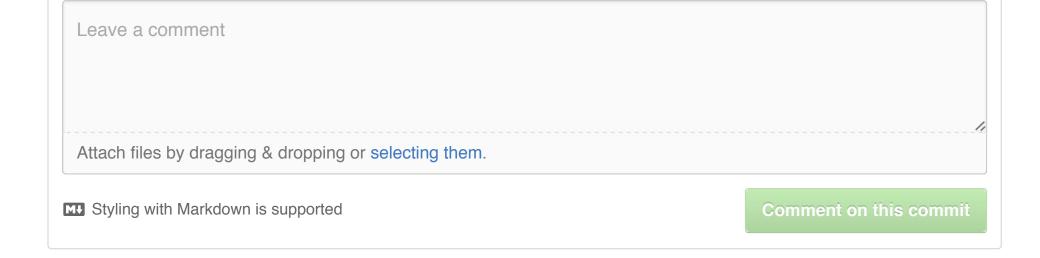
△ Lock conversation



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return builder;

Write Preview AA → B i 66 ↔ □ IE 1/2 @ □





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