OCL Exercise

Determine parameter(s) (if any) and parameter type(s), return type (if any), pre-conditions, and post-conditions for the following operations for the computer-game application introduced in class. Write pre- and post-conditions using OCL.

**OneGameSubsession**

`/* This is a portion of a gaming session in which the player plays one or more instances of the same game in a row (that is, without playing other games between instances). For example, if a session consists of three playing instances of Game1, followed by an instance of Game2, followed by two more instances of Game1, there will be three one-game subsessions – two for Game1 and one for Game2. */

getNumberOfInstances( )

Parameter(s) and type(s):

Return type:

Pre-conditions:

Post-conditions:
**OneGameSubsession (continued)**

getTotalScore()

Parameter(s) and type(s):

Return type:

Pre-conditions:

Post-conditions:

getHighScore()

Parameter(s) and type(s):

Return type:

Pre-conditions:

Post-conditions:
**OneGameSubsession (continued)**

getAverageScore()

Parameter(s) and type(s):

Return type:

Pre-conditions:

Post-conditions:

addPlayingInstanceScore()

Parameter(s) and type(s):

Return type:

Pre-conditions:

Post-conditions:
GameRecord

/* A persistent record of one player’s history with one game. The first time a player plays a particular game, a game record for that player and game must be created. Afterwards, it just needs to be updated. */

getTimesPlayed()

Parameter(s) and type(s):

Return type:

Pre-conditions:

Post-conditions:

getTotalScore()

Parameter(s) and type(s):

Return type:

Pre-conditions:

Post-conditions:
GameRecord (continued)

getHighScore()

Parameter(s) and type(s):

Return type:

Pre-conditions:

Post-conditions:

getAverageScore()

Parameter(s) and type(s):

Return type:

Pre-conditions:

Post-conditions:
GameRecord (continued)

updateRecord()

Parameter(s) and type(s):

Return type:

Pre-conditions:

Post-conditions:

PlayerHistory

-- This is just the set of persistent game records for a particular player.

addSubsessionInfo()

Parameter(s) and type(s):

Return type:

Pre-conditions:

Post-conditions: