# <<interface>> PlayerGameStatsAccess

- + updateStats(String playerID, String gameID, String statID, **int** stat)
- updateStats(String playerID, String gameID, Map<String, Integer> stats)
- endGame(String playerID, String gameID, boolean save)
- getCurrStats(String playerID, String gameID): Map<String, Integer>
- isBeingPlayed(String playerID, String gameID): boolean

# <<interface>> PlayerTotalStatsAccess

- + getBestStats(String playerID, String gameID): Map<String, Integer>
- getTotalStats(String playerID, String gameID): Map<String, Integer>
- -getGamesPlayed(String playerID): List<String>

# <<interface>> PlayerLoginAccess

- + login(String username, String password): String
   createNewPlayer(String
- createNewPlayer(String username, String password): String

#### PlayerManager

- + dataAccess: DataAccessObject
- + setDataFile(File dataFile)
- createNewPlayer(String
- username, String password): String
- updateStats(String playerID, String gameID, String statID, int stat)
- updateStats(String playerID, String gameID, Map<String, Integer> stats)
- endGame(String playerID, String gameID, boolean save)
- gameID, boolean save)
   getPlayer(String playerID): Player
- login(String username, String password): String
- isBeingPlayed(String playerID, String gameID): boolean
- getBestStats(String playerID, String gameID): Map<String, Integer>
- getTotalStats(String playerID, String gameID): Map<String, Integer>
- getCurrStats(String playerID, String gameID): Map<String, Integer>
- getGamesPlayed(String playerID):List<String>

### PlayerBuilder

- + TAG: String
   player: Player
- + buildPlayer(JSONObject playerData, String playerID)
- buildPlayerStats(JSONObject playerData)
- buildBestGameStats(JSONObject bestGameStats)
- bestGameStats)buildTotalGameStats(JSONObject totalGameStats)
- buildCurrGameStats(JSONObject currGameStats)
- buildGameStatMap(JSONObject gameStatistics): Map<String, Integer>
- buildUserAndPassword(JSONObject playerData)
- getPlayer(): PlayerbuildPlayerID(String playerID)

### Player <Facade>

- + PLAYER ID LEN: int = 5
- USERNAME: String =
- "Username"
- PASSWORD: String =
- "Password"
- CURR\_SESSION: String =
- "Current Session"
- BEST\_SESSION: String = "Best Session"
- TOTAL\_SESSION: String =
- "Total Session"
- playerStats: PlayerStats
- username:String
- password: String
- playerID: String
- + setCurrStats(Map<String, Map<String, Integer>> currGameStats)
- setBestStats(Map<String, Map<String, Integer>> bestGameStats)
- setTotalStats(Map<String, Map<String, Integer>> totalGameStats)
- setUsername(String username)
- setPassword(String password)
- setPlayerID(String playerID)
- + getPlayerID(): String
- getUsername(): String
- getPassword(): String
- isBeingPlayed(String gameID): boolean
- getCurrStats(): Map<String, Map<String, Integer>>
- getCurrStats(String gameID):
- Map<String, Integer>
   getBestStats(): Map<String,
- Map<String, Integer>>
- getBestStats(String gameID):Map<String, Integer>
- getTotalStats(): Map<String,
- Map<String, Integer>>
- getTotalStats(String gameID):Map<String, Integer>
- getData(): Map<String, Object>
- + generateRandomID(): String
- newCurrGame(String currGameID)
- endCurrGame(String gameID,

#### boolean save)

- updateCurrStats(String gameID, String statID, int value)
- updateCurrStats(String gameID, Map<String, Integer> gameStatsMap)
- getGamesPlayed(): List<String>

#### **PlayerStats**

- + currGame: Map<String, PlayerGameStats>
- + bestGame: Map<String, PlayerGameStats>
- totalGame: Map<String, PlayerGameStats>
- + isBeingPlayed(String gameID) : boolean
- getCurrStats(): Map<String, Map<String, Integer>>
- getCurrStats(String gameID):Map<String, Integer>
- getBestStats(): Map<String,
- Map<String, Integer>>
- getBestStats(String gameID):Map<String, Integer>
- getTotalStats(): Map<String,
- Map<String, Integer>>
   getTotalStats(String gameID):
  Map<String, Integer>
- + setBestStats(Map<String, Map<String, Integer>> bestGameStats)
- setTotalStats(Map<String, Map<String, Integer>> totalGameStats)
- setCurrStats(Map<String, Map<String, Integer>> currGameStats)
- + newCurrGame(String gameID)- updateCurrGame(String gameID, String statID, int value)
- updateCurrGame(String gameID, Map<String, Integer> newStats)
- updateBestGame(PlayerGameStats newestGameStats)
- updateTotalGame(PlayerGameStats newestGameStats)



### PlayerGameStats

- + gameID: String
- statsMap: Map<String, Integer>
- totalScore: int
- + getGameID(): String
- getAllStats(): Map<String, Integer>
- getTotalScore(): int
- + update(String statID, **int** newValue)
- update(Map<String, Integer> newStats)
- increment(String statID, int newValue)
- increment(Map<String, Integer> newStats)
- updateTotalScore(int score)
- compareTo(PlayerGameStats otherGameStats)