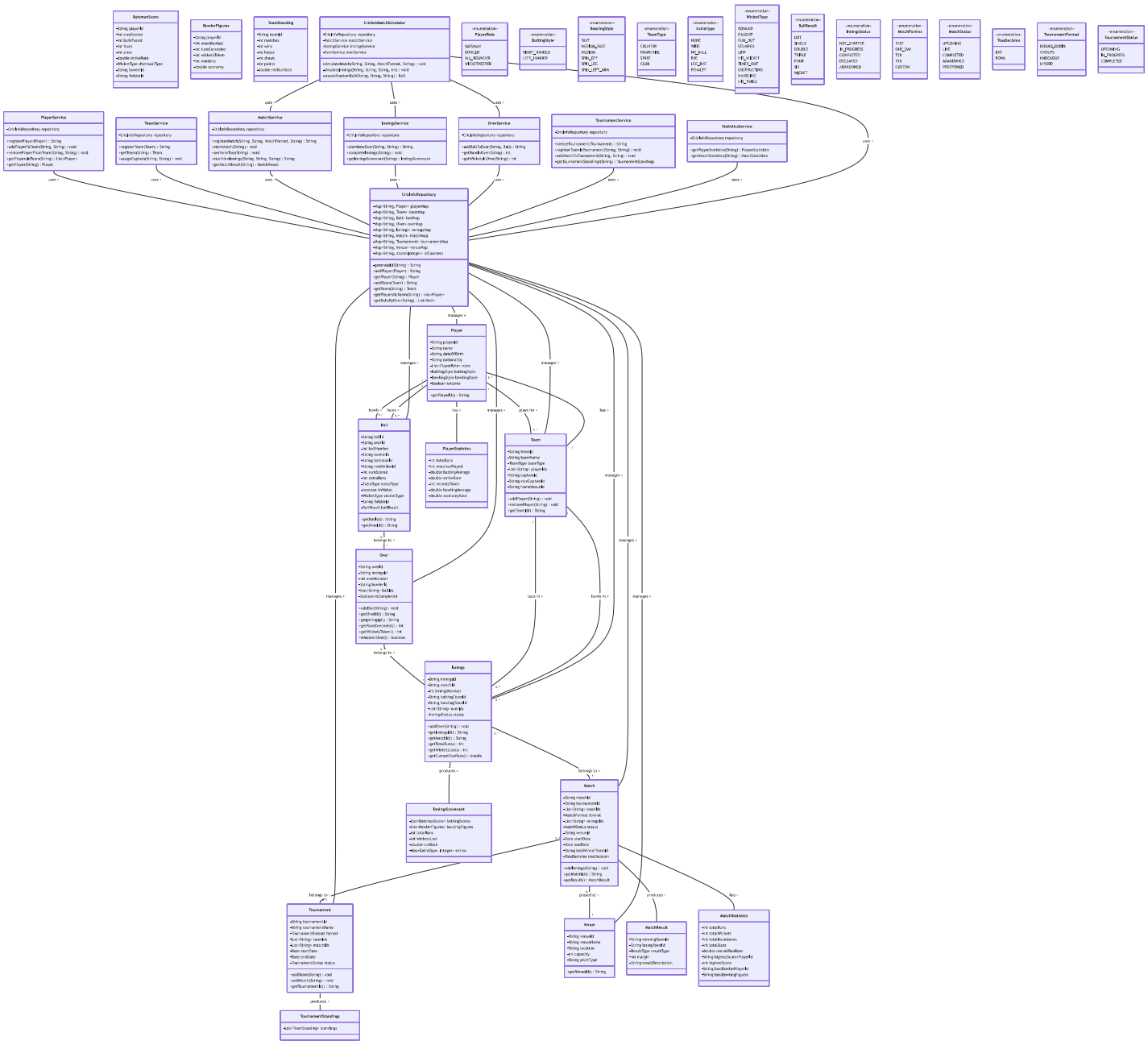
BatsmanScore
•String playerId
•int runsScored
•int ballsFaced
•int fours
•int sixes
•double strikeRate
•WicketType dismissalType
•String towards
•String fielderId
BowlerFigures
•String playerId
•int oversBowled
•int runsConceded
•int wicketsTaken
•int maidens
•double economy
TeamStanding
•String teamId
•int matches
•int wins
•int losses
•int draws
•int points
•double netRunRate
CricketMatchSimulator
•CricketRepository repository
•MatchService matchService
•BattingService battingService
•OverService overService
•simulateMatch(String, String, MatchFormat, String) : void
•simulateBatting(String, String, String, int) : void
•executeBowlerBall(String, String, String) : Ball
-enumeration-
PlayerRole
BATSMAN
BOWLER
ALL_ROUNDER
WICKETKEEPER
-enumeration-
BattingStyle
RIGHT_HANDED
LEFT_HANDED
-enumeration-
BowlingStyle
FAST
MEDIUM_FAST
MEDIUM
SPIN_OFF
SPIN_LEG
SPIN_LEFT_ARM
-enumeration-
TeamType
COUNTRY
FRANCHISE
STATE
CLUB
-enumeration-
ExtraType
NONE
WIDE
NO_BALL
BYE
LEG_BYE
PENALTY
-enumeration-
WicketType
BOWLED
CAUGHT
RUN_OUT
STUMPED
LBW
HIT_WICKET
TIMED_OUT
OBSTRUCTING
HANDLING
HIT_TWICE
-enumeration-
BallResult
DOT
SINGLE
DOUBLE
TRIPLE
FOUR
SIX
WICKET
-enumeration-
InningsStatus
NOT_STARTED
IN_PROGRESS
COMPLETED
DECLARED
ABANDONED
-enumeration-
MatchFormat
TEST
ONE_DAY
T20
TIE
CUSTOM
-enumeration-
MatchStatus
UPCOMING
LIVE
COMPLETED
ABANDONED
POSTPONED
-enumeration-
TossDecision
BAT
BOWL
-enumeration-
TournamentFormat
ROUND_ROBIN
GROUPS
KNOCKOUT
HYBRID
-enumeration-
TournamentStatus
UPCOMING
IN_PROGRESS
COMPLETED
PlayerService
•CricketRepository repository
•registerPlayer(Player) : String
•addPlayerToTeam(String, String) : void
•removePlayerFromTeam(String, String) : void
•getPlayerById(String) : List<Player>
•getPlayerBy(String) : Player
TeamService
•CricketRepository repository
•registerTeam(Team) : String
•getTeam(String) : Team
•assignCaptain(String, String) : void
MatchService
•CricketRepository repository
•registerMatch(String, String, MatchFormat, String) : String
•startMatch(String) : void
•performToss(String) : void
•startNewInnings(String, String, String) : String
•getMatchResult(String) : MatchResult
InningsService
•CricketRepository repository
•startNewOver(String, String) : String
•completeInnings(String) : void
•getInningsScorecard(String) : InningsScorecard
OverService
•CricketRepository repository
•addBallToOver(String, Ball) : String
•getBallsInOver(String) : int
•getWicketsInOver(String) : int
TournamentService
•CricketRepository repository
•createTournament(Tournament) : String
•registerTeamToTournament(String, String) : void
•addMatchToTournament(String, String) : void
•getTournamentStandings(String) : TournamentStandings
StatisticsService
•CricketRepository repository
•getPlayerStatistics(String) : PlayerStatistics
•getMatchStatistics(String) : MatchStatistics
CricketRepository
•Map<String, Player> playerMap
•Map<String, Team> teamMap
•Map<String, Ball> ballMap
•Map<String, Over> overMap
•Map<String, Inings> inningsMap
•Map<String, Match> matchMap
•Map<String, Tournament> tournamentMap
•Map<String, Venue> venueMap
•Map<String, AtomicInteger> idCounters
•generateId(String) : String
•addPlayer(Player) : String
•getPlayer(String) : Player
•addTeam(Team) : String
•getTeam(String) : Team
•getPlayersByTeam(String) : List<Player>
•getBallsByOver(String) : List<Ball>
manages
Player
•String playerId
•String name
•String dateOfBirth
•String nationality
•List<PlayerRole> roles
•BattingStyle battingStyle
•BowlingStyle bowlingStyle
•Boolean isActive
•getPlayerId() : String
bowls
faces
has
manages
plays for
has
Ball
•String ballId
•String overId
•int ballNumber
•String bowlerId
•String batsmanId
•String nonStrikerId
•int runsScored
•int extraRuns
•ExtraType extraType
•boolean isWicket
•WicketType wicketType
•String fielderId
•AtomicInteger ballResult
•getBallId() : String
•getOverId() : String
PlayerStatistics
•int totalRuns
•int matchesPlayed
•double battingAverage
•double strikeRate
•int wicketsTaken
•double bowlingAverage
•double economyRate
Team
•String teamId
•String teamName
•TeamType teamType
•List<String> playerIDs
•String captainId
•String viceCaptainId
•String homeVenueId
•addPlayer(String) : void
•removePlayer(String) : void
•getTeamId() : String
belongs to
Over
•String overId
•String inningsId
•int overNumber
•String bowlerId
•List<String> ballIDs
•boolean isCompleted
•addBall(String) : void
•getOverId() : String
•getInningsId() : String
•getRunsConceded() : int
•getWicketsTaken() : int
•isMaidenOver() : boolean
belongs to
manages
bats in
bowls in
manages
manages
Inings
•String inningsId
•String matchId
•int inningsNumber
•String battingTeamId
•String bowlingTeamId
•List<String> overIDs
•InningsStatus status
•addOver(String) : void
•getInningsId() : String
•getMatchId() : String
•getTotalRuns() : int
•getWickets() : int
•getCurrentOverNumber() : double
produces
belongs to
Match
•String matchId
•String tournamentId
•List<String> teamIDs
•MatchFormat format
•List<String> inningsIDs
•MatchStatus status
•String venueId
•Date startDate
•Date endDate
•String tossWinnerTeamId
•TossDecision tossDecision
•addInnings(String) : void
•getMatchId() : String
•getResult() : MatchResult
InningsScorecard
•List<BatsmanScore> battingScores
•List<BowlerFigures> bowlingFigures
•int totalRuns
•int wicketsLost
•double runRate
•Map<ExtraType, Integer> extras
belongs to
played at
produces
has
Tournament
•String tournamentId
•String tournamentName
•TournamentFormat format
•List<String> teamIDs
•List<String> matchIDs
•Date startDate
•Date endDate
•TournamentStatus status
•addMatch(String) : void
•addTeam(String) : void
•getTournamentId() : String
produces
Venue
•String venueId
•String venueName
•String location
•int capacity
•String pitchType
•getVenueId() : String
MatchResult
•String winningTeamId
•String losingTeamId
•ResultType resultType
•int margin
•String resultDescription
MatchStatistics
•int totalRuns
•int totalWickets
•int totalBoundaries
•int totalSixes
•double overallRunRate
•String highestScorerPlayerId
•int highestScore
•String bestBowlerPlayerId
•String bestBowlingFigures