

All classes that inherit mainParent have a constructor using all their attributes, however it is not inherited from mainParent

classRace
Attributes - Integer raceID Integer numberOfStages String name String description
Methods - Inherited getters getNumberOfStages setNumberOfStages getDetails (returns all information as a string)

mainParent
Attributes - String name String description Integer raceID Integer riderID Integer teamID
Methods - Getters for all attributes Uses - Used to reduce code required since many other classes share attributes/attribute names

classRider
Attributes - Integer yearOfBirth String name Integer riderID Integer teamID
Methods - Inherited getters getYearOfBirth

classStage
Attributes - String name Double length Integer stageID String description StageType type Integer raceID Double location Integer checkpointID LocalDate startTime Integer numOfCheckpoints
Methods - Inherited getters getters for all attributes setNumOfCheckpoints

classTeam
Attributes - Integer teamID String name String description Int[] riderIDs
Methods - Inherited getters getRiderIDs

classCheckpoints
Attributes - CheckpointType type Double location Double averageGradient Integer checkpointID Double length
Methods - getLocation getCheckpointType 2 types of constructor for different inputs

## Attributes -

int numRaces --> number of races used to make IDs  
 int numRiders --> used for rider IDs  
 int numStages  
 int numTeams  
 HashMap raceNameIds --> HashMap with Name as the Key and IDs as the value  
 HashMap raceIdNames --> HashMap with race Ids as the key and names as the values  
 HashMap raceNames --> Race name as key, the Race object as value  
 HashMap raceStages --> Race id as key, list of stage IDs as value  
 HashMap stageRaces --> Stage id as key, race ID as value  
 HashMap stageNameIds  
 HashMap stageIdNames  
 HashMap stageNames  
 HashMap riderIdObj --> Rider ID as key, rider object as value  
 HashMap teamRiders  
 HashMap riderTeam  
 HashMap teamNameIds  
 HashMap teamIdNames  
 HashMap teamNames  
 HashMap stageCheckpoints --> stageId as key, list of checkpoint IDs as value  
 HashMap stageCheckpointIds --> Stage ID as key, Hashmap containing checkpoint ID and checkpoint object as value  
 HashMap checkpointStage  
 HashMap stagePreparation --> stageId for key, String saying if preparing or waiting for results as value  
 HashMap stageRiders  
 HashMap ridersStageResults  
 HashMap stageRiderElapsed  
 HashMap IdElapse  
 HashMap adjusted Elapse  
 Various int[] lists containing values for points awarded based on placement in a checkpoint relative to checkpoint difficulty

## Methods -

createRace(string name, string description) return int  
 viewRaceDetails(int raceId) return string  
 removeRaceById(int raceId) void  
 getNumberOfStages(int raceId) return int  
 addStageToRace(int raceId, String stageName, String description, double length, LocalDateTime startTime, StageType type) return int  
 getRaceStages(int raceId) return int[]  
 getStageLength(int stageId) return double  
 removeStageById(int stageId) void  
 addCategorizedClimbToStage(int stageId, double location, checkpointType type, double averageGradient, double length) returns int  
 addIntermediateSprintToStage(int stageId, double location) return int  
 removeCheckpoint(int checkpointId) void  
 concludeStagePreparation(int stageId) void  
 getStageCheckpoints(int stageId) returns int[]  
 createTeam(string name, string description) return int  
 removeTeam(int teamId) void  
 getTeams() returns int[]  
 getTeamRiders(int teamId) returns int[]  
 createRider(int teamId, string name, int yearOfBirth) returns int  
 removeRider(int riderId) void  
 registerRiderResultsInStage(int stageId, int riderId, LocalDateTime... checkpoints) void  
 getRiderResultsInStage(int stageId, int riderId) returns LocalTime[]  
 getRiderAdjustedElapsedTimeInStage(int stageId, int riderId) returns LocalTime  
 deleteRiderResultsInStage(int stageId, int stageId) void  
 getRiderRankInStage(int stageId) returns int[]  
 getRankAdjustedElapsedTimeInStage(int stageId) returns LocalDateTime[]  
 getRiderSpotsInStage(int stageId) returns int[]  
 getRidersMountainPointsInStage(int stageId) returns int[]  
 eraseCyclingPortal() void  
 saveCyclingPortal(string filename) void  
 loadCyclingPortal(string filename) void  
 removeRaceByName(string name) void  
 getGeneralClassificationTimesInRace(int raceId) return LocalTime[]  
 getRidersPointsInRace(int raceId) return int[]  
 getRidersMountainPointsInRace(int raceId) return int[]  
 getRidersGeneralClassificationRank(int raceId) return int[]  
 getRidersPointClassificationRank(int raceId) return int[]  
 getRiderMountainPointClassificationRank(int raceId) return int[]