```
- teams: List<Team>
- races: List<Race>
                                                                                  - stages: List<Rider>
- riders: List<Rider>
- riders: List<Rider>

+ getRaccIds(): int[]
+ createRace(name: String, description: String): int
+ viewRaceDetails(raccId: int): Void
+ getNumberOfStages(raccId: int): void
+ getNumberOfStages(raccId: int): int
+ addStageToRace(raccId: int): stageName: String, description: String, length: double,
startTime: LocalDateTime, type: StageType): int
+ getRaceStages(raccId: int): int[]
+ getStageEngth(stageId: int): double
+ removeStageById(stageId: int): void
+ addCtageOrized(limbloStage(stageId: int, location: Double, type: CheckpointType,
averageGradient: Double, length: Double): int
+ addIntermediateSprintIoStage(stageId: int, location: double): int
+ removeCheckpoint(checkpointId: int): void
+ concludeStagePreparation(stageId: int): void
+ getStageCheckpoints(stageId: int): int[]
+ create leam(name: String, description: String): int
+ removeTeam(teamId: int): void
+ getTeamRiders(teamId: int): int[]
+ createRider(teamId: int): void
+ getTeamRiders(teamId: int): void
+ getTeamRiders(teamId: int): void
+ getRiderResultsInStage(stageId: int, riderId: int): coalTime[]
+ getRiderResultsInStage(stageId: int, riderId: int): void
+ getRiderResultsInStage(stageId: int, riderId: int): void
+ getRiderResultsInStage(stageId: int, riderId: int): localTime[]
+ getRiderResultsInStage(stageId: int, riderId: int): localTime[]
+ getRiderShointsInStage(stageId: int): int[]
+ getRiderShointsInRace(raccId: int): int[]
+ getRiderShointsInRace(raccId: int): int[]
+ getRiderShointsInRace(raccId: int): int[]
+ getRiderShountainPointSlassificationRank(raccId: int): int[]
+ getRiderShounta
                                                                                             stages: List<Stage>riders: List<Rider>
                                                                                                                                                                                                                                                                                                                                 Races In Cycling
                                                                                                                                                                                                                                                                                                                                                         Portal
                                                                                                                                                                                                                                                                                       Class: Race
                                                                                                                                                                                                   name: String
description: String
idCounter: int
                                                                                                                                                                                                  id: int allRaceIds: List<Integer>
                                                                                                                                                                                      + races: List<Race>
+ stages: List<Stage>
+ Race(name: String, description: String)
+ getId(): int
+ getName(): String
+ getDescription(): String
+ getAlRaceIds(): List<Integer>
+ removeRaceById(raceId: int): void
+ addStage(stage: Stage): void
+ getNumberOfStages(raceId: int): int|
+ getRaceStages(raceId: int): int[]
+ getStageLength(stageId: int): double
+ removeStageById(raceId: int): void
+ viewRaceDetails(raceId: int): String
+ concludeStagePreparation(stageId: int): void
+ getStageStartTime(stageId: int):
LocalDateTime
+ getStageById(stageId: int): Stage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Teams In Race
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Class: Teams
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  description: String nextTeamId: int
                                                                                                                                                                                                + getStageById(stageId: int): Stage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     id: int
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     riders: List<Rider>
                                                                                                                                                                                                                                                                               Stages in Race
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     + teams: List<Team>
+ Team(name: String, description: String)
+ getName(): String
+ getId(): int
+ addRider(name: String, yearOfBirth: int): int
+ removeRider(rider: Rider): void
+ getRiders(): List<Rider>
+ createTeam(name: String, description: String):
int
+ removeTeam(teamId: int): void
                                                                                                                                                                                                                                                                                   Class: Stages
                                                                                                                                                                        - state: String
- idCounter: int
- id: int
- raceId: int
- name: String
- description: String
- length: double
- startTime: LocalDateTime
- type: StageType
- checkpoints: List<Checkpoint>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            + removeTeam(teamId: int): void
+ getTeams(): int[]
+ getTeamRiders(teamId: int): int[]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Riders In Teams
                                                                                                                                                                  + Stage(raceId: int, name: String, description: String, length: double, startTime: LocalDateTime, type: StageType)
+ getId(): int
+ getRaceId(): int
+ getName(): String
+ getDescription(): String
+ getLength(): double
+ getStartTime(): LocalDateTime
+ getType(): StageType
+ getState(): String
+ setState(): String
+ setState(state: String): void
+ addCheckpoint(stageId: int, checkpoint: Checkpoint): void
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Class: Riders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              - teamID: int
- name: String
- yearOfBirth: int
- riderId: int
- nextRiderId: int
- resultsByStage: Map<Integer, LocalTime[]>
- riders: List<Rider>
                                                                                                                                                                            removeCheckpoint(checkpointId: int): void getStageCheckpoints(): int[] getStageCheckpoints(stageId: int): int[]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Class: Stage State
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            + Rider(teamID: int, name: String, yearOfBirth: int)
+ getNextRiderId(): int
+ getTeamID(): int
+ getId(): int
+ createRider(teamID: int, name: String, yearOfBirth: int): int
+ removeRider(riderId: int): void
+ setResultsForStage(stageId: int, checkpoints: LocalTime[]): void
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        UNDER_PREPARATION WAITING FOR_RESULTS CONCLUDED
                            Class: Stage Type
                                                                                                                                                                                                                                                                                                                       Checkpoints in stages
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             void
+ hasResultsForStage(stageId: int): boolean
+ getResultsForStage(stageId: int): LocalTime[]
+ retrieveRiderById(riderId: int): Rider
+ removeResultsForStage(stageId: int): void
+ getAllParticipatingRiderIds(stageId: int): List<Integer>
+ sortRiderIdsByFinishTime(allRiderIds: List<Integer>, stageId: int): void
FLAT
MEDIUM MOUNTAIN
HIGH MOUNTAIN
TT
                                                                                                                                                                                                                                                                         Class: Checkpoint
                                                                                                           idCounter: int
                                                                                                         id: int
stageId: int
                                                                                                        location: double type: CheckpointType averageGradient: double length: double
                                                                                                   + addCategorizedClimbToStage(stageId: int, location: double, type: CheckpointType, averageGradient: double, length: double): int + addIntermediateSprintToStage(stageId: int, location: double): int
                                                                                                        addIntermediateSprintloStage(
  getId(): int
  getStageId(): int
  getLocation(): double
  getType(): CheckpointType
  getAverageGradient(): double
  getLength(): double
  getIdCounter(): int
                                                                                                                                                                                                                                                             Class: Checkpoint Type
                                                                                                                                                                                                                                                C4
C3
C2
C1
HC
```

Class: BadCyclingPortalImpl