Karting report

Denis Festa

February 2, 2024



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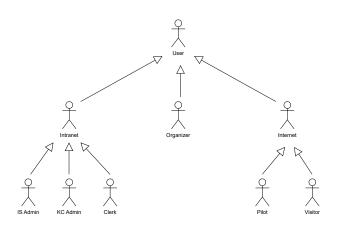
This web information systems allows different actors to cooperate to give a wonderful experience to all go-karting lovers. The visitor will be able to explore our different tracks: longer and shorter, indoor and outdoor, asphalt and resin... which will be your favourite? Come to visit our go-karting centers to find out. You will need to register before his first race, then



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User groups





Group name	User
Description	Empty
Profile data	None
Supergroup	None
Subgroups	None
Use cases	- Explore karting centers by city
	- Explore karting centers by number of races
	- Explore karting centers by number of pilots
	- Explore karting centers by number of events
	- Explore karting centers by average review score
	- View all karting centers hosting upcoming events
	- Read details on karting center
	- Read reviews on karting center
	- Explore tracks in a karting center
	- Explore events by karting center
	- Explore tracks by asphalt type
	- Explore tracks by difficulty
	- Explore tracks by length
	- Explore tracks by city
	- Explore tracks by number of races
	- Explore tracks by number of pilots
	- Explore tracks by number of events
	- Explore tracks by average review score



Use cases	- Read details on track
	- Read reviews on track
	- Explore events by track
	- Explore leaderboards
	- Explore races from track
	- Explore lap-times of a race
	- Explore pilots from track
	- Read details on pilot
	- Explore events from pilot
	- Explore races from pilot
	- Explore events by city
	- Explore events by average review score
	- Explore events by price
	- Explore events by category
	- Explore events by popularity
	- Explore upcoming events
	- Explore controversial events
	- Read details on event
	- Explore karting centers by event
	- Explore tracks by event
	- Explore pilots from event
	- Explore races from event
	- Read reviews on event
Read	Karting center, Track (and Popular track) and implicitly
	Timetable, Race, Pilot, Event (and its subentities), Review on
	karting center, Review on track, Review on event, Leaderboard,
	Lap-time,
	City, Go-kart model, Track asphalt type, Track length range, Re-
	view score range, N. pilots range, N. races range, N. events range,
	Price range, Event category.
Write	None





Group name	Intranet
Description	Empty
Profile data	None
Supergroup	User
Subgroups	Information System Administrator, Karting center administrator, Clerk
Use cases	- Login/Logout - Read my details
Read	Everything the generic user can read
Write	None



Group name	Information System Administrator
Description	Empty
Profile data	Username, Password, Email, Name, Surname, Address
Supergroup	Intranet
Subgroups	None
Use cases	- Explore karting center administrators
	- Read details on karting center administrator
	- U.D. karting center administrator
	- Create karting center administrator
	- Explore karting centers
	- Read details on karting center
	- U.D. karting center
	- Create karting center
	- Explore organizers
	- Read details on organizer
	- U.D. organizer
	- Create organizer
	- C.R.U.D. cities
	- C.R.U.D. go-kart models
	- C.R.U.D. track asphalt types
	- C.R.U.D. track difficulies
	- C.R.U.D. track length ranges
	- C.R.U.D. review score ranges
	- C.R.U.D. n. pilots ranges
	- C.R.U.D. n. races ranges
	- C.R.U.D. n. events ranges
	- C.R.U.D. price ranges
	- C.R.U.D. event categories



Read	Everything
Write	Karting center, Karting center administrator, Organizer, City, Go- kart model, Track asphalt type, Track length range, Review score range, N. pilots range, N. races range, N. events range, Price range, Event category, everything that every karting center ad- ministrator can write (thus, also everything that every clerk can write) and everything that every organizer can write.



Group name	Karting center administrator
Description	Empty
Profile data	Username, Password, Email, Name, Surname, Address
Supergroup	Intranet
Subgroups	None
Use cases	- Explore my karting centers
	- Explore pilots by karting center
	- Explore pilots
	- Read details on pilot
	- U.D. pilot
	- Create pilot
	- Explore clerks by karting center
	- Explore clerks
	- Read details on clerk
	- U.D. clerk
	- Create clerk
	- Explore tracks (related to my karting centers)
	- Explore tracks by karting center
	- Read details on track
	- U.D. track
	- Create track
	- Explore races (related to my karting centers)
	- Read details on race
	- U.D. race
	- Create race
	- Explore go-karts dedicated to tracks of my karting centers
	- U.D. go-kart dedicated to track
	- Create go-kart



Read	Clerks (related to my karting centers), go-karts (related to my
	karting centers), everything that every clerk of my karting centers
	can read, everything that the generic user can read.
Write	Karting center (only mine, only to update, not to create nor
	delete), Clerk (only mine), Track (only mine), Race (only for my
	karting centers) and implicitly Reservation, Go-kart (only for my
	karting centers), everything that every clerk of my karting centers
	can write.



Group name	Clerk
Description	Empty
Profile data	Username, Password, Email, Name, Surname, Address
Supergroup	Intranet
Subgroups	None
Use cases	- Explore reservations (related to my karting center) - Confirm reservation - Explore reviews on my karting center - Read review on karting center
	- Delete review on karting center - Explore reviews on the tracks of my karting center - Read review on track - Delete review on track - Explore reviews on events (that involved my karting center) - Read review on event - Delete review on event
Read	Reservation (only for my karting centers), everything that the generic user can read.
Write	Review on Karting center (only mine, only deleting), Review on Track (only of mine karting center, only deleting), Review on Event (only involving my karting center, only deleting), Reservation (only for my karting centers, only to confirm). Indirectly: Karting center, Track, Event (when deleting a review, implicitly some of their attributes are alterated, e.g. avgReviewScore, nReviews).



Group name	Organizer
Description	Empty
Profile data	Username, Password, Email, Name, Surname, Address
Supergroup	User
Subgroups	None
Use cases	- Explore my events
	- Read details on my event
	- U.D. events
	- Create event
	- Explore not yet confirmed applications
	- Confirm application
	- Explore races of the event
	- Read details on race
	- U.D. race
	- Create race
Read	Application (only to my events), everything that the generic user
	can read.
Write	Event (C.R.U.D. only mine), Race (C.R.U.D. only for my events)
	and implicitly Reservation, Application (only to my events, only
	to confirm).
	Indirectly: Karting center, Track, Pilot (when organizing events,
	implicitly some of their attributes are alterated, e.g. nRaces,
	nEvents).



Group name	Internet
Description	Empty
Profile data	None
Supergroup	User
Subgroups	Pilot, Visitor
Use cases	None
Read	Everything the generic user can read
Write	None

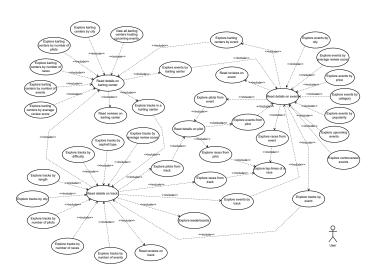


Group name	Pilot
Description	Empty
Profile data	Username, Password, Email, Name, Surname, Address
Supergroup	Internet
Subgroups	None
Use cases	- Login/Logout
	- Read my details
	- Explore not yet confirmed reservations
	- C.U.D. races and reservations - Explore confirmed reservations
	- Explore my past races
	- Read details on race
	- Create review of karting center
	- Create review of track
	- Explore upcoming events applied to but not confirmed yet
	- Explore upcoming events not applied to
	- Explore my past events
	- Apply to an event
	- Read details on event
	- Create review of event
Read	Reservation (only mine), everything that the generic user can
	read, Race (those that still have to take place, created by me)
	and implicitly Review, Application (only mine).
Write	Race (only mine) and implicitly Reservation, Review on kart-
	ing center, Review on track, Review on event, Application (only
	mine).
	Indirectly: Karting center, Track, Event (when participating to
	a race or writing a review, implicitly some of their attributes are
	alterated, e.g. nPilots, nRaces, avgReviewScore).



Group name	Visitor
Description	Empty
Profile data	None
Supergroup	Internet
Subgroups	None
Use cases	- Register
Read	Everything the generic user can read
Write	None







Title	Explore karting centers by city
Goal	The user explores karting centers selecting one city at a time.
Precondition	The user is in the area (of the public view) dedicated to karting
	centers.
Postcondition	The user obtains the list of karting centers from which he can
	move on.
Workflow	- The user moves to the area dedicated to karting centers.
	- The user selects a city.



Title	Explore karting centers by number of races
Goal	The user explores karting centers selecting one range of number of races (that were hosted on any of the tracks of the karting
	center) at a time.
Precondition	The user is in the area (of the public view) dedicated to karting
	centers.
Postcondition	The user obtains the list of karting centers from which he can
	move on.
Workflow	- The user moves to the area dedicated to karting centers.
	- The user selects a range of number of races.



Title	Explore karting centers by number of pilots
Goal	The user explores karting centers selecting one range of number of pilots (who had a race on any of the tracks of the karting
	center) at a time.
Precondition	The user is in the area (of the public view) dedicated to karting
	centers.
Postcondition	The user obtains the list of karting centers from which he can
	move on.
Workflow	- The user moves to the area dedicated to karting centers.
	- The user selects a range of number of pilots.



Title	Explore karting centers by number of events
Goal	The user explores karting centers selecting one range of number
	of events (that had at least one race hosted on any of the tracks
	of the karting center) at a time.
Precondition	The user is in the area (of the public view) dedicated to karting
	centers.
Postcondition	The user obtains the list of karting centers from which he can
	move on.
Workflow	- The user moves to the area dedicated to karting centers.
	- The user selects a range of number of events.



Title	Explore karting centers by average review score
Goal	The user explores karting centers selecting one range of average review scores (given to the karting center by all the pilots that
	had at least one race on one of the tracks of the karting center) at a time.
Precondition	The user is in the area (of the public view) dedicated to karting centers.
Postcondition	The user obtains the list of karting centers from which he can move on.
Workflow	The user moves to the area dedicated to karting centers. The user selects a range of scores (the ranges are the same for karting centes, tracks and events).



Title	View all karting centers hosting upcoming events
Goal	The user scrolls through the list of karting centers that are going
	to host an upcoming event.
Precondition	The user already has this information in the homepage.
Postcondition	The user obtains the list of karting centers from which he can
	move on.
Workflow	- The user reaches the homepage.



Title	Read details on karting center
Goal	The user chooses one karting center to focus on and reads its
	details.
Precondition	The user chose a karting center from a list of karting centers
	(obtained from any of the previous use cases).
Postcondition	The user obtains the details on the karting center and can move
	on to other related informations (e.g. tracks, reviews)
Workflow	- The user chooses one karting center from a list.



Title	Read reviews on karting center
Goal	The user chooses one karting center to focus on and scrolls the
	reviews it received (from pilots that had at least one race on one
	track of the karting center).
Precondition	The user chose a karting center from a list of karting centers
	(obtained from any of the previous use cases).
Postcondition	The user obtains the reviews on the karting center in the area
	dedicated to reviews.
Workflow	- The user moves from the page dedicated to the details of the
	karting center to the page dedicated to reviews through a click.



Title	Explore tracks in a karting center
Goal	The user chooses one karting center to focus on and explores the
	tracks it offers.
Precondition	The user chose a karting center from a list of karting centers
	(obtained from any of the previous use cases).
Postcondition	The user obtains the tracks offered by the karting center in the
	area dedicated to tracks.
Workflow	- The user moves from the page dedicated to the details of the
	karting center to the page dedicated to tracks through a click.



Title	Explore events by karting center
Goal	The user chooses one karting center to focus on and explores the
	events that had at least one of their races hosted by a track of the karting center.
Precondition	The user chose a karting center from a list of karting centers
	(obtained from any of the previous use cases).
Postcondition	The user obtains the events in the area dedicated to events.
Workflow	- The user moves from the page dedicated to the details of the karting center to the page dedicated to events through a click.



Title	Explore tracks by asphalt type
Goal	The user explores tracks selecting one asphalt type at a time.
Precondition	The user is in the area (of the public view) dedicated to tracks.
Postcondition	The user obtains the list of tracks from which he can move on.
Workflow	- The user moves to the area dedicated to tracks.
	- The user selects an asphalt type.



Title	Explore tracks by difficulty
Goal	The user explores tracks selecting one difficulty at a time.
Precondition	The user is in the area (of the public view) dedicated to tracks.
Postcondition	The user obtains the list of tracks from which he can move on.
Workflow	- The user moves to the area dedicated to tracks.
	- The user selects a difficulty.



Title	Explore tracks by length
Goal	The user explores tracks selecting one range of lengths at a time.
Precondition	The user is in the area (of the public view) dedicated to tracks.
Postcondition	The user obtains the list of tracks from which he can move on.
Workflow	- The user moves to the area dedicated to tracks.
	- The user selects a range of lengths.



Title	Explore tracks by city
Goal	The user explores tracks selecting one city at a time.
Precondition	The user is in the area (of the public view) dedicated to tracks.
Postcondition	The user obtains the list of tracks from which he can move on.
Workflow	- The user moves to the area dedicated to tracks.
	- The user selects a city.



Title	Explore tracks by number of races
Goal	The user explores tracks selecting one range of number of races
	(that took place on the track) at a time.
Precondition	The user is in the area (of the public view) dedicated to tracks.
Postcondition	The user obtains the list of tracks from which he can move on.
Workflow	- The user moves to the area dedicated to tracks.
	- The user selects a range of number of races.



Title	Explore tracks by number of pilots
Goal	The user explores tracks selecting one range of number of pilots
	(who had a race on the track) at a time.
Precondition	The user is in the area (of the public view) dedicated to tracks.
Postcondition	The user obtains the list of tracks from which he can move on.
Workflow	- The user moves to the area dedicated to tracks.
	- The user selects a range of number of pilots.



Title	Explore tracks by number of events
Goal	The user explores tracks selecting one range of number of events
	(that had at least one race hosted on the track) at a time.
Precondition	The user is in the area (of the public view) dedicated to tracks.
Postcondition	The user obtains the list of tracks from which he can move on.
Workflow	- The user moves to the area dedicated to tracks.
	- The user selects a range of number of events.



Title	Explore tracks by average review score
Goal	The user explores tracks selecting one range of average review
	scores (given to the track by all the pilots that had at least one
	race on the track) at a time.
Precondition	The user is in the area (of the public view) dedicated to tracks.
Postcondition	The user obtains the list of tracks from which he can move on.
Workflow	- The user moves to the area dedicated to tracks.
	- The user selects a range of scores (the ranges are the same for
	karting centes, tracks and events).



Title	Read details on track
Goal	The user chooses one track to focus on and reads its details.
Precondition	The user chose a track from a list of tracks (obtained from any
	of the previous use cases).
Postcondition	The user obtains the details on the track and can move on to
	other related informations (e.g. pilots, leaderboards, races, re-
	views)
Workflow	- The user chooses one karting center from a list.



Title	Read reviews on track
Goal	The user chooses one track to focus on and scrolls the reviews it
	received (from pilots that had at least one race on it).
Precondition	The user chose a track from a list of tracks (obtained from any
	of the previous use cases).
Postcondition	The user obtains the reviews on the tracks in the area dedicated
	to reviews.
Workflow	- The user moves from the area dedicated to the details of the
	track to the area dedicated to reviews through a click.



Title	Explore events by track
Goal	The user chooses one track to focus on and explores the events
	that had at least one of their races hosted by the track.
Precondition	The user chose a track from a list of tracks (obtained from any
	of the previous use cases).
Postcondition	The user obtains the events in the area dedicated to events.
Workflow	- The user moves from the area dedicated to the details of the
	track to the area dedicated to events through a click.



Title	Explore leaderboards
Goal	The user chooses one track to focus on and explores the leader-
	boards associated to the track (leaderboards are filtering on the
	whole record of laptimes obtained by pilots in a race, a leader-
	board can focus on the last month, the last year, sex, weight)
Precondition	The user chose a track from a list of tracks (obtained from any
	of the previous use cases).
Postcondition	The user obtains the list of leaderboards in the area dedicated to
	leaderboards.
Workflow	- The user moves from the area dedicated to the details of the
	track to the area dedicated to leaderboards through a click.



Title	Explore races from track
Goal	The user chooses one track to focus on and explores the races
	that took place on the track.
Precondition	The user chose a track from a list of tracks (obtained from any
	of the previous use cases).
Postcondition	The user obtains the list of races in the area dedicated to races.
Workflow	- The user moves from the area dedicated to the details of the
	track to the area dedicated to races through a click.



Title	Explore lap-times of a race
Goal	The user chooses one race to focus on and reads all the lap-times
	made by all the pilots that participated to the race.
Precondition	The user chose a race from a list of races (obtained from a track,
	an event or a pilot).
Postcondition	The user obtains the list of lap-times in the area dedicated to
	lap-times.
Workflow	- The user moves from the area dedicated to the details of the
	race to the area dedicated to lap-times through a click.



Title	Explore pilots from track
Goal	The user chooses one track to focus on and explores the pilots
	that had at least one race on the track.
Precondition	The user chose a track from a list of tracks (obtained from any
	of the previous use cases).
Postcondition	The user obtains the list of pilots in the area dedicated to pilots.
Workflow	- The user moves from the area dedicated to the details of the
	track to the area dedicated to pilots through a click.



Title	Read details on pilot
Goal	The user chooses one pilot to focus on and reads its details.
Precondition	The user chose a pilot from a list of pilots (obtained from a track, a race, an event).
Postcondition	The user obtains the details on the pilot and can move on to other related informations (e.g. races, events).
Workflow	- The user chooses one pilot from a list.



Title	Explore events from pilot
Goal	The user chooses one pilot to focus on and explores the events
	that the pilot attended.
Precondition	The user chose a pilot from a list of pilots (obtained from a track,
	a race, an event).
Postcondition	The user obtains a list of events in the area dedicated to events.
Workflow	- The user moves from the area dedicated to the details of the
	pilot to the area dedicated to events through a click.



Title	Explore races from pilot
Goal	The user chooses one pilot to focus on and explores the races
	that the pilot had.
Precondition	The user chose a pilot from a list of pilots (obtained from a track,
	a race, an event).
Postcondition	The user obtains a list of races in the area dedicated to races.
Workflow	- The user moves from the area dedicated to the details of the
	pilot to the area dedicated to races through a click.



Title	Explore events by city
Goal	The user explres events selecting one city at a time.
Precondition	The user is in the area (of the public view) dedicated to events.
Postcondition	The user obtains the list of events from which he can move on.
Workflow	- The user moves to the area dedicated to events.
	- The user selects a city.



Title	Explore events by average review score
Goal	The user explores events selecting one range of average review scores (given to the event by all the pilots that partcipated to it) at a time.
Precondition	The user is in the area (of the public view) dedicated to events.
Postcondition	The user obtains the list of events from which he can move on.
Workflow	- The user moves to the area dedicated to events. - The user selects a range of scores (the ranges are the same for karting centes, tracks and events).



Title	Explore events by price
Goal	The user explores events selecting one range of prices at a time.
Precondition	The user is in the area (of the public view) dedicated to events.
Postcondition	The user obtains the list of events from which he can move on.
Workflow	- The user moves to the area dedicated to events.
	- The user selects a range of prices.



Title	Explore events by category
Goal	The user explores events selecting one category at a time.
Precondition	The user is in the area (of the public view) dedicated to events.
Postcondition	The user obtains the list of events from which he can move on.
Workflow	- The user moves to the area dedicated to events.
	- The user selects a category.



Title	Explore events by popularity
Goal	The user explores only the events considered popular (those that
	have at least N participants and at least M reviews)
Precondition	The user is in the area (of the public view) dedicated to events.
Postcondition	The user obtains the list of events from which he can move on.
Workflow	- The user moves to the area dedicated to events The user chooses an event from the list of popular events already provided in the area dedicated to events.



Title	Explore upcoming events
Goal	The user explores only the upcoming events (those whose first
	race still has to take place).
Precondition	The user is in the area (of the public view) dedicated to events
	or in the homepage (which already shows the list of upcoming
	events, the list of tracks that will be involved and the list of
	karting centers that will be involved).
Postcondition	The user obtains the list of events from which he can move on.
Workflow	- A: the user chooses an event from the list of upcoming events
	already provided in the homepage.
	- B.1: the user moves to the area dedicated to events.
	- B.2: the user chooses an event from the list of upcoming events
	already provided in the area dedicated to events.



Title	Explore controversial events
Goal	The user explores only the controversial events (those that have
	at least N reviews under 25% of the maximum score and at least
	M reviews over 75% of the maximum score).
Precondition	The user is in the area (of the public view) dedicated to events.
Postcondition	The user obtains the list of events from which he can move on.
Workflow	- The user moves to the area dedicated to events.
	- The user chooses an event from the list of controversial events
	already provided in the area dedicated to events.



Title	Read details on event
Goal	The user chooses one event to focus on and reads its details.
Precondition	The user chose an event from a list of events (obtained from any of the previous use cases).
Postcondition	The user obtains the details on the event and can move on to other related informations (e.g. races, pilots)
Workflow	- The user chooses one event from a list.



Title	Explore karting centers by event
Goal	The user chooses one event to focus on and explores the karting
	centers that hosted at least one race of the event.
Precondition	The user chose an event from a list of events (obtained from any
	of the previous use cases).
Postcondition	The user obtains the list of karting centers in the area dedicated
	to karting centers.
Workflow	- The user moves from the area dedicated to the details of the
	event to the area dedicated to karting centers through a click.



Title	Explore tracks by event
Goal	The user chooses one event to focus on and explores the tracks
	that hosted at least one race of the event.
Precondition	The user chose an event from a list of events (obtained from any
	of the previous use cases).
Postcondition	The user obtains the list of tracks in the area dedicated to tracks.
Workflow	- The user moves from the area dedicated to the details of the
	event to the area dedicated to tracks through a click.



Title	Explore pilots from event
Goal	The user chooses one event to focus on and explores the pilots
	that participated to the event.
Precondition	The user chose an event from a list of events (obtained from any
	of the previous use cases).
Postcondition	The user obtains a list of pilots in the area dedicated to pilots.
Workflow	- The user moves from the area dedicated to the details of the
	event to the area dedicated to pilots through a click.



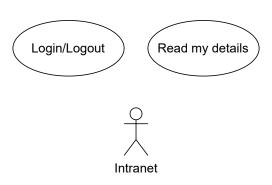
Title	Explore races from event
Goal	The user chooses one event to focus on and explores the races
	that the event organized.
Precondition	The user chose an event from a list of events (obtained from any
	of the previous use cases).
Postcondition	The user obtains a list of races in the area dedicated to races.
Workflow	- The user moves from the area dedicated to the details of the
	event to the area dedicated to races through a click.



Title	Read reviews on event
Goal	The user chooses one event to focus on and scrolls the reviews
	it received (from pilots that participated to the event).
Precondition	The user chose an event from a list of events (obtained from any
	of the previous use cases).
Postcondition	The user obtains the reviews on the event in the area dedicated
	to reviews.
Workflow	- The user moves from the area dedicated to the details of the
	event to the area dedicated to reviews through a click.



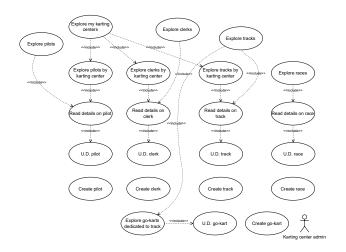
Intranet







Karting center administrator





Title	Explore my karting centers
Goal	The user explores the karting centers he manages.
Precondition	The user logged in and manages at least one karting center.
Postcondition	The user obtains the list of karting centers he manages.
Workflow	 A: the user already has a list of karting centers he manages in the homepage.
	- B: the user moves to the area dedicated to karting centers and the list is already provided.



Title	Explore pilots by karting center
Goal	The user explores the pilots that participated in at least one race
	on a track of a karting center the user manages.
Precondition	The user logged in, manages at least one karting center and at
	least one pilot had a race on a track of the karting center.
Postcondition	The user obtains the list of pilots in the area dedicated to pilots.
Workflow	- The user chooses the option to explore pilots of a karting center
	from the list (provided in the homepage) of karting centers he
	manages.



Title	Explore pilots
Goal	The user explores all the pilots that were registered in any karting
	center by any karting center administrator.
Precondition	The user logged in.
Postcondition	The user obtains the list of pilots in the area dedicated to pilots.
Workflow	- The user moves to the area dedicated to pilots (the list is already provided).



Title	Read details on pilot
Goal	The user chooses one pilot to focus on and reads its details.
Precondition	The user chose a pilot from a list of pilots (obtained from the homepage, from the area dedicated to pilots or from the area dedicated to races).
Postcondition	The user obtains the details on the pilot (in the area dedicated to pilots).
Workflow	- The user chooses one pilot from a list (from the homepage, the area dedicated to pilots or the area dedicated to races).



Title	U.D. pilots
Goal	The user updates or deletes a pilot.
Precondition	The user logged in.
Postcondition	The chosen pilot is updated or deleted.
Workflow	- The user moves to the area dedicated to pilots.
	- The user chooses the option to update or delete a pilot from
	the list of all pilots (provided in the area dedicated to pilots).



Title	Create pilots
Goal	The user creates a new pilot.
Precondition	The user logged in.
Postcondition	The pilot is created.
Workflow	- The user moves to the area dedicated to pilots.
	- The user chooses the option to create a new pilot.



Title	Explore clerks by karting center
Goal	The user explores the clerks that work in a karting center the
	user manages.
Precondition	The user logged in, manages at least one karting center and at
	least one clerk works in the karting center.
Postcondition	The user obtains the list of clerks in the area dedicated to clerks.
Workflow	- The user chooses the option to explore clerks of a karting center
	(among the list of karting centers displayed in the homepage) he
	manages.

Title	Explore tracks by karting center
Goal, Precondition, Postcondition, Work- flow	Similar to the use case Explore clerks by karting center. The user explores the tracks that are part of a karting center the user manages. It is of course possible for a karting center administrator to explore all the tracks of all the karting centers the same way is is for a visitor, but the site view dedicated to the karting center administrator focuses on showing him custom informations. This is not true for the access of the karting center administrator to clerks, he cannot even read informations about clerks from other karting centers, not in his dedicated site view, neither in the visitor's site view.



Title	Explore clerks
Goal	The user explores all the clerks that were registered in any karting
	center the user manages.
Precondition	The user logged in, manages at least one karting center and at
	least one clerk works in the karting center.
Postcondition	The user obtains the list of clerks in the area dedicated to clerks.
Workflow	The user moves to the area dedicated to clerks (the list is already provided). Note: a karting center admin can see all the pilots (also from other karting centers) in the area dedicated to pilots but can only see the clerks of the karting centers he manages in the area dedicated to clerks.

Title	Explore tracks
Goal, Precondition, Postcondition, Work- flow	Similar to the use case Explore clerks .

Title	Explore races
Goal, Precondition,	Similar to the use case Explore clerks. The user explores all the
Postcondition, Work-	races that were hosted on any of the tracks in any of the karting
flow	centers he manages.





Title	Read details on clerk
Goal	The user chooses one clerk to focus on and reads its details.
Precondition	The user chose a clerk from a list of clerks (obtained from the
	homepage, from the area dedicated to clerks.)
Postcondition	The user obtains the details on the clerk (in the area dedicated
	to clerks).
Workflow	- The user chooses one clerk from a list (from the homepage or
	the area dedicated to clerks).

Title	Read details on track
Goal, Precondition, Postcondition, Work-	Similar to the use case Read details on clerk .
flow	

Title	Read details on race
Goal, Precondition,	Similar to the use case Read details on clerk.
Postcondition, Work-	
flow	



Title	U.D. clerks
Goal	The user updates or deletes a clerk.
Precondition	The user logged in.
Postcondition	The chosen clerk is updated or deleted.
Workflow	The user moves to the area dedicated to clerks. The user chooses the option to update or delete a clerk from the list of all clerks (provided in the area dedicated to clerks). The user can only update or delete clerks that work for a karting center he manages.

Goal, Precondition, Postcondition, Work- Postcondition, Work- Robin Similar to the use case U.D. clerks . The user can update or delete only tracks of karting centers he manages.	Title	U.D. tracks
I flow	,	

Title	U.D. races
Goal, Precondition, Postcondition, Work- flow	Similar to the use case U.D. races. The user can udpdate or delete races that took place or are going to take place on a track of a karting center he manages; when he does, the list of reservations on the same track associated to the race being updated/deleted is shown.



Title	Create clerks
Goal	The user creates a new clerk.
Precondition	The user logged in.
Postcondition	The clerk is created.
Workflow	The user moves to the area dedicated to clerks. The user chooses the option to create a new clerk tht will be visible only to him.

Title	Create tracks
Goal, Precondition, Postcondition, Work- flow	Similar to the use case Create clerks . The track created will be visible to everybody.

Title	Create races
Goal, Precondition,	Similar to the use case Create clerks. When the race is created,
Postcondition, Work-	an associated reservation (weak entity) is created as well and all
flow	the clerks working for the karting center that hosts the new race will be able to confirm it. The reservation stores the information of the pilot or the organizer that created the race, in this case a fictitious organizer that is created apriori is used.



Title	Explore go-karts dedicated to track (TODO)
Goal	The user explores the go-karts that are dedicated to a track.
Precondition	The user logged in, manages at least one karting center that has at least one track that has at least one go-kart dedicated to it.
Postcondition	The user obtains the list of go-karts in the area dedicated to go-karts.
Workflow	 A: the user chooses a track from the list of tracks (provided in the homepage) of the karting centers he manages. B: the user moves to the area dedicated to tracks and chooses a track from the list of tracks (provided in the area dedicated to tracks) of the karting centers he manages. The user chooses the option to explore go-karts dedicated to the track.



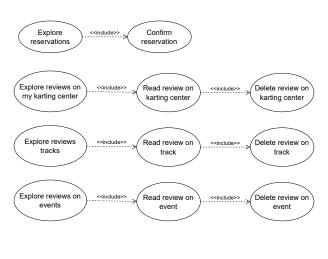
Title	U.D. go-karts (TODO)
Goal	The user updates or deletes a go-kart.
Precondition	The user logged in and manages at least one karting center that has at least one track that has at least one go-kart dedicated to it.
Postcondition	The chosen go-kart is updated or deleted.
Workflow	A: the user chooses a track from the list of tracks (provided in the homepage) of the karting centers he manages. B: the user moves to the area dedicated to tracks and chooses a track from the list of tracks (provided in the area dedicated to tracks) of the karting centers he manages. The user chooses the option to update or delete a go-kart from the list of go-karts provided in the same page with the details on the track.



Title	Create go-karts (TODO)
Goal	The user creates a new go-kart.
Precondition	The user logged in and manages at least one karting center that
	has at least one track.
Postcondition	The go-kart is created.
Workflow	- A: the user chooses a track from the list of tracks (provided in
	the homepage) of the karting centers he manages.
	- B: the user moves to the area dedicated to tracks and chooses
	a track from the list of tracks (provided in the area dedicated to
	tracks) of the karting centers he manages.
	- The user chooses the option to create a new go-kart dedicated
	to the track from the same page with the details on the track.



Clerk







Title	Explore reservations
Goal	The user explores the reservations asked by pilots on any track
	of the karting center the user works for (a clerk can work on one
	karting center at a time.)
Precondition	The user logged in and works for a karting center that received
	at least a request for reservation on a track.
Postcondition	The user obtains the list of reservations in the area dedicated to
	reservations.
Workflow	- The user moves to the area dedicated to reservations (a list of
	the reservations grouped by track is provided).



Title	Confirm reservation
Goal	The user confirms a reservation.
Precondition	The user logged in and works for a karting center that received at least a request for reservation on a track.
Postcondition	The reservation is confirmed (it now has both a pilot/organizer and a clerk associated to it).
Workflow	- The user moves to the area dedicated to reservations The user chooses the option to confirm a reservation from the list of reservations.



Title	Explore reviews on my karting center
Goal	The user explores the reviews that were written on the karting
	center the user works for.
Precondition	The user logged in and works for a karting center that received
	at least one review.
Postcondition	The user obtains the list of reviews on the karting centers.
Workflow	- The user already has a list of reviews on the karting center he
	works for in the homepage.

Title	Explore reviews on tracks
Goal	The user explores the reviews that were written on tracks of the
	karting center the user works for.
Precondition	The user logged in and works for a karting center that received
	at least one review on a specific track.
Postcondition	The user obtains the list of reviews on the tracks.
Workflow	- The user already has a list of reviews on the karting center he
	works for in the homepage.

Title	Explore reviews on events
Goal	The user explores the reviews that were written on events that
	hosted at least one race on a track of the karting center the user
	works for.
Precondition	The user logged in and works for a karting center that hosted at
	least one race of an event that received at least one review.
Postcondition	The user obtains the list of reviews on the events.
Workflow	- The user already has a list of reviews on the karting center he
	works for in the homepage.



Title	Read review on karting center
Goal	The user chooses one review to focus on and reads its details.
Precondition	The user logged in and chose a review from the list of reviews on
	the karting center.
Postcondition	The user obtains reads the review and can decide to delete it.
Workflow	- The user chooses one review from the list of reviews on the
	karting center (from the homepage).

Title	Read review on track
Goal, Precondition, Postcondition, Work- flow	Similar to the use case Read review on karting center .

Title	Read review on event
Goal, Precondition, Postcondition, Work-	Similar to the use case Read review on karting center .
flow	



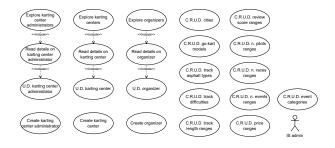
Title	Delete review on karting center
Goal	The user deletes a review on the karting center.
Precondition	The user logged in and chose a review from the list of reviews on the karting center.
Postcondition	The user deletes the review.
Workflow	The user chooses one review from the list of reviews on the karting center (from the homepage). The user chooses the option to delete the review.

Title	Delete review on track
Goal, Precondition, Postcondition, Work-	Similar to the use case Delete review on karting center .
flow	

Title	Delete review on event
Goal, Precondition,	Similar to the use case Delete review on karting center .
Postcondition, Work-	
flow	



Information system administrator





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Denis Festa Karting report February 2, 2024

Title	Explore karting center administrators
Goal	The user explores the karting center administrators
Precondition	The user logged in and has already created at least a karting center administrator.
Postcondition	The user obtains the list of karting center administrators.
Workflow	- The user moves to the area dedicated to karting center administrators.

Title	Explore karting centers
Goal, Precondition, Postcondition, Work- flow	Similar to the use case Explore karting center administrators .

Title	Explore organizers
Goal, Precondition, Postcondition, Work- flow	Similar to the use case Explore karting center administrators .



Title	Read details on karting center administrator
Goal	The user chooses one karting center administrator to focus on and reads its details.
Precondition	The user logged in and has already created at least a karting
	center administrator.
Postcondition	The user obtains the details on the karting center administrator.
Workflow	- The user moves to the area dedicated to karting center admin-
	istrators.
	 The user chooses one karting center administrator from the list of karting center administrators.

Title	Read details on karting center
Goal, Precondition, Postcondition, Work-	Similar to the use case Read details on karting center adminis- trator.
flow	trator.

Title	Read details on organizer
Goal, Precondition, Postcondition, Work-	Similar to the use case Read details on karting center administrator.
flow	



Title	U.D. karting center administrator
Goal	The user updates or deletes a karting center administrator.
Precondition	The user logged in and has already created at least a karting center administrator.
Postcondition	The chosen karting center administrator is updated or deleted.
Workflow	The user moves to the area dedicated to karting center administrators. The user chooses one karting center administrator from the list of karting center administrators. The user chooses the option to update or delete the karting center administrator.

Title	U.D. karting center
Goal, Precondition, Postcondition, Work- flow	Similar to the use case U.D. karting center administrator .

Title	U.D. organizer
Goal, Precondition,	Similar to the use case U.D. karting center administrator.
Postcondition, Work-	
flow	





Title	Create karting center administrator
Goal	The user creates a new karting center administrator.
Precondition	The user logged in.
Postcondition	The karting center administrator is created.
Workflow	The user moves to the area dedicated to karting center administrators. The user chooses the option to create a new karting center administrator.
	ministrator.

Title	Create karting center
Goal, Precondition, Postcondition, Work-	Similar to the use case Create karting center administrator .
flow	

Title	Create organizer
Goal, Precondition, Postcondition, Work-	Similar to the use case Create karting center administrator .
flow	

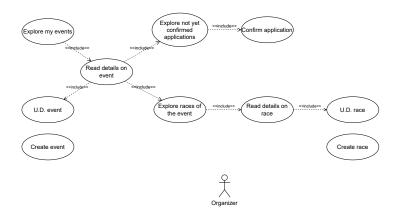


The information system administrator is responsible for the management of all those entities useful to the visitors to navigate the site. He has the possibility to create, update and delete the following entities:

- City
- Go-kart model
- Track asphalt type
- Track difficulty
- Track length range
- Review score range
- Number of pilots range
- Number of races range
- Number of events range
- Price range
- Event category



Organizer







Title	Explore my events
Goal	The user explores the events he created.
Precondition	The user logged in and created at least one event.
Postcondition	The user obtains the list of events he created.
Workflow	 A: the user already has a list of events he created and the applications received for each event in the homepage. B: the user moves to the area dedicated to events and the list is already provided.



Title	Read details on my event
Goal	The user chooses one event to focus on and reads its details.
Precondition	The user logged in.
Postcondition	The user obtains the details on the event and can move on to
	other related informations (e.g. applications).
Workflow	- A: the user chooses one event from the list of events he created in the homepage.
	- B.1: the user moves to the area dedicated to events.
	- B.2: the user chooses one event from the list of events he
	created in the area dedicated to events.



Title	U.D. events
Goal	The user updates or deletes an event he created.
Precondition	The user logged in and he created at least one event.
Postcondition	The event is updated or deleted, the modifications might affect the races created for the track and the participations of the pilots to the races of the event but the applications made by pilots are not affected.
Workflow	 - A: the user chooses one event from the list of events he created in the homepage. - B.1: the user moves to the area dedicated to events. - B.2: the user chooses one event from the list of events he created in the area dedicated to events. - The user chooses the option to update or delete the event.



Title	Create event
Goal	The user creates a new event.
Precondition	The user logged in and created at least one race.
Postcondition	The event is created and pilots can apply to it.
Workflow	- The user moves to the area dedicated to events. - The user chooses the option to create a new event (he will need to choose among races he created to fill the event).



Title	Explore not yet confirmed applications
Goal	The user explores the applications received for his events that he
	did not confirm yet.
Precondition	The user logged in, created at least one event and at least one
	pilot applied to it.
Postcondition	The user obtains the list of applications that he did not confirm
	yet.
Workflow	- A: the user chooses one event from the list of events he created
	in the homepage.
	- B.1: the user moves to the area dedicated to events.
	- B.2: the user chooses one event from the list of events he
	created in the area dedicated to events.
	(- The list of applications not yet confirmed is already provided.)



Title	Confirm application
Goal	The user confirms an application received for one of his events.
Precondition	The user logged in, created at least one event and at least one
	pilot applied to it.
Postcondition	The application is confirmed and the pilot is automatically in-
	serted as a participant to all of the races of the event (this might
	change, e.g. in case the organizer decides to organize races in a
	tournament fashion, but the application will not be affected).
Workflow	- A: the user chooses one event from the list of events he created
	in the homepage.
	- B.1: the user moves to the area dedicated to events.
	- B.2: the user chooses one event from the list of events he
	created in the area dedicated to events.
	- The user chooses the option to accept an application from the
	list of applications not yet confirmed.



Title	Explore races of the event
Precondition	The user logged in, created at least one event and the event has
	at least one race.
Postcondition	The user obtains the list of races of a specific event.
Workflow	- A: the user chooses one event from the list of events he created
	in the homepage.
	- B.1: the user moves to the area dedicated to events.
	- B.2: the user chooses one event from the list of events he
	created in the area dedicated to events.
	(- The list of races of the chosen event is already provided.)



Title	Read details on race
Precondition	The user logged in, created at least one event and the event has
	at least one race.
Postcondition	The user obtains the details on the race and can move on (e.g.
	updating or deleting it.)
Workflow	- A: the user chooses one event from the list of events he created
	in the homepage.
	- B.1: the user moves to the area dedicated to events.
	- B.2: the user chooses one event from the list of events he
	created in the area dedicated to events.
	- The user chooses one race from the list of races of the chosen
	event.



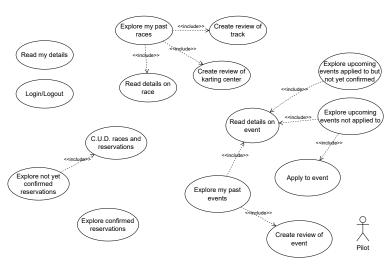
Title	U.D. race
Precondition	The user logged in, created at least one event and the event has
	at least one race.
Postcondition	The race gets updated or deleted, this affects the relations with
	the pilots (participation) but not the application of the pilots to
	the event.
Workflow	- A: the user chooses one event from the list of events he created
	in the homepage.
	- B.1: the user moves to the area dedicated to events.
	- B.2: the user chooses one event from the list of events he
	created in the area dedicated to events.
	- The user chooses one race from the list of races of the chosen
	event.
	- The user chooses the option to update or delete the race.



Title	Create race
Precondition	The user logged in.
Postcondition	A new race is available to the user to be added to an event.
Workflow	- The user moves to the area dedicated to events.
	- The user chooses the option to create a new race.









Title	Read my details
Goal	The user reads its own personal informations, already available
	in the homepage.
Precondition	The user logged in.
Postcondition	The user obtains its personal informations.
Workflow	- The user logs in and reads the informations already present in
	the homepage.



Title	Explore not yet confirmed reservations
Goal	The user explores the reservations he made that are not yet con-
	firmed by any clerk
Precondition	The user logged in.
Postcondition	The user obtains the list of reservations that are not yet confirmed
	by any clerk.
Workflow	The user moves to the area dedicated to reservations and the list is already provided.
	not is an easy provided.



Title	C.U.D. races and reservations
Goal	The user asks for a reservation to have a race on a track of a
	karting center.
Precondition	The user logged in.
Postcondition	A race and its relative reservation (a weak entity of the race) are created, updated or deleted.
Workflow	The user moves to the area dedicated to reservations. A: the user selects a reservation from those not yet confirmed and updates it or deletes it. B: the user creates a new reservation without the need to select one from those not yet confirmed. Note: the existence of the reservation is hidden to the user when he creates/updates/deletes the race, the reservation just takes some of the attributes of the race (Date, Start, End) and is shared with the clerks of the karting center, who can confirm it or not. The user can only see the reservations that are confirmed or not, he does not edit them directly but only through the actions on the race.



Title	Explore confirmed reservations
Goal	The user explores the reservations he made that are confirmed
	by a clerk
Precondition	The user logged in.
Postcondition	The user obtains the list of reservations that are confirmed by a
	clerk.
Workflow	- The user moves to the area dedicated to reservations and the
	list is already provided.



Title	Explore my past races
Goal	The user explores the races he had in the past (not the races he
	booked through the previous use case).
Precondition	The user logged in.
Postcondition	The user obtains the list of past races.
Workflow	- The user moves to the area dedicated to races and the list is already provided.



Title	Read details on race
Goal	The user chooses one race to focus on and reads its details.
Precondition	The user logged in.
Postcondition	The user obtains the details on the race and related informations such as the best lap-time of that race (it could be from the user himself or another pilot).
Workflow	- The user moves to the area dedicated to races The user chooses one race from the list of past races.



Title	Create review of karting center
Goal	The user creates a review of a karting center.
Precondition	The user logged in and had at least one race that will allow him to write reviews for the track and the karting center that hosted that race.
Postcondition	The review is stored and a clerk of the karting center will be able to read it and remove it if it is considered inappropriate.
Workflow	The user moves to the area dedicated to reviews. From the list of past races, the user selects the option to write a review of the karting center that hosted the chosen race from the list. The user chooses a score, writes the review and submits it.

Title	Create review of track
Goal, precondition, postcondition, work- flow	Equivalent to the previous use case, but the review is of a track.



Title	Explore upcoming events applied to but not confirmed yet
Goal	The user explores the events that he applied to and that have
	not been confirmed by an organizer yet.
Precondition	The user logged in.
Postcondition	The user obtains the list of events that he applied to and that
	have not been confirmed yet.
Workflow	- The user moves to the area dedicated to events and the list is
	already provided.



Title	Explore upcoming events not applied to
Goal	The user explores the upcoming events that he did not apply to.
Precondition	The user logged in.
Postcondition	The user obtains the list of upcoming events that he did not apply to.
Workflow	The user moves to the area dedicated to events and the list is already provided.



Title	Explore my past events
Goal	The user explores the events that he attended in the past.
Precondition	The user logged in and attended at least one event in the past.
Postcondition	The user obtains the list of events that he attended in the past.
Workflow	- The user moves to the area dedicated to events. - The user selects the option to explore the events that he attended in the past.



Title	Apply to an event
Goal	The user applies to an event.
Precondition	The user logged in and he has not already applied to the event.
Postcondition	The user applies to the event and the organizer will be able to
	see and confirm the application.
Workflow	- The user moves to the area dedicated to events.
	- The user selects one event from the list of upcoming events
	that he did not apply to.
	- The user applies to the event.



Specification sheet

Title	Read details on event
Goal	The user chooses one event to focus on and reads its details.
Precondition	The user logged in.
Postcondition	The user obtains the details on the event.
Workflow	The user moves to the area dedicated to events. A: the user chooses one event from the list of upcoming events (both applied to and not applied to). B.1: the user chooses the option to explore the events that he attended in the past. B.2: the user chooses one event from the list of past events.



Specification sheet

Title	Create review of event
Goal	The user creates a review of an event he has attended in the past.
Precondition	The user logged in and attended at least one event in the past.
Postcondition	The review is stored and the organizer of the event and the clerks of all the karting centers that hosted at least one race of the event will be able to read it, clerks will be able to remove it if it is considered inappropriate.
Workflow	The user moves to the area dedicated to events. The user chooses the option to explore the events that he attended in the past. The user selects the option to write a review from one of the events in the list. The user chooses a score, writes the review and submits it.



Visitor







Name	KartingCenter
Synonym	Go-karting center
Description	Karting center
Example of instance	Name: Mantova Karting Center
	City: Mantova
	nPilots: 5937
	nRaces: 12485
	nEvents:74
	avgReviewScore: 3.9
Properties	Name: the name of the karting center
	City: the city where the karting center is located
	nPilots: the number of pilots that have raced in the karting center
	nRaces: the number of races that took place in the karting center
	nEvents: the number of events that had at least one race hosted
	by the karting center
	avgReviewScore: the average score of the reviews of the karting
	center
Components	KartingCenterReview



Relations	KartingCenter_City (N:1): the city where the karting center is located
	KartingCenter_KartingCenterAdmin (N:1): the karting center administrator of the karting center
	KartingCenter_Clerk (1:N): the clerks of the karting center
	KartingCenter_KartingCenterReview (1:N): the reviews of the karting center
	KartingCenter_Track (1:N): the tracks of the karting center
	KartingCenter_NPilotsRange (N:1) the range within the number
	of pilots that have raced in the karting center falls
	KartingCenter_NRacesRange (N:1) the range within the number
	of races that took place in the karting center falls
	KartingCenter_NEventsRange (N:1) the range within the number of events that took place in the karting center falls
	KartingCenter_ReviewScoreRange (N:1) the range within the av-
	erage score of the reviews of the karting center falls
	KartingCenter_Event (N:N) the events the karting center hosted
Superconcepts	None
Subconcepts	None



Name	City
Synonym	None
Description	City
Example of instance	Name: Mantova
Properties	Name: the name of the city
Components	None
Relations	City_KartingCenter (1:N): the karting centers located in the city City_Track (1:N): the tracks (inside a karting center) located in the city City_Event (N:N): the events that had at least one race on a track of a karting center located in the city
Superconcepts	None
Subconcepts	None



Name	Track
Synonym	Circuit
Description	Track
Example of instance	Name: T1
	Length: 700m
	City: Mantova
	AsphaltType: resin
	nRentalGoKarts: 23
	Difficulty: Intermediate
	nPilots: 3873
	nRaces: 7437
	nEvents: 43
	avgReviewScore: 4.2
Properties	Name: the name of the track
	Length: the length of the track
	City: the city where the karting center the track belongs to is
	located
	AsphaltType: the type of asphalt of the track
	nRentalGoKarts: the number of rental go-karts available in the
	track
	Difficulty: the difficulty of the track
	nPilots: the number of pilots that have raced on the track
	nRaces: the number of races that took place on the track
	nEvents: the number of events that had at least one race on the
	track
	avgReviewScore: the average score of the reviews of the track
Components	Timetable, Leaderboard, TrackReview



Relations	Track_KartingCenter (N:1): the karting center the track belongs
	to
	Track_TrackReview (1:N): the reviews of the track
	Track_Timetable (1:1): the timetable of the track
	Track_Leaderboard (1:N): the leaderboards of the track
	Track_Race (1:N): the races that took place on the track
	Track_GoKart (1:N): the go-karts dedicated to the track
	Track_GoKartModel (N:N): the go-kart models allowed on the
	track
	Track_TrackAshpalt (N:1): the asphalt of the track
	Track_TrackDifficulty (N:1): the difficulty of the track
	Track_Pilot (N:N): the pilots that have the track as one of their
	favourite
	Track_City (N:1): the city where the karting center the track
	belongs to is located
	Track_TrackLengthRange (N:1): the range within the length of
	the track falls
	Track_NPilotsRange (N:1): the range within the number of pi-
	lots that have raced on the track falls
	Track_NRacesRange (N:1): the range within the number of races
	that took place on the track falls
	Track_NEventsRange (N:1): the range within the number of
	events that took place on the track falls
	Track_ReviewScoreRange (N:1): the range within the average
	score of the reviews of the track falls
Superconcepts	None
Subconcepts	PopularTrack: a track that is recurrent in the list of favourite
	tracks of pilots
	tracito or priorio





Name	Go-kart
Synonym	Kart
Description	Go-kart
Example of instance	Name: T1.1
	GoKartModel: Sodi RX7
Properties	Name: the name of the go-kart
	GoKartModel: the model of the go-kart
Components	None
Relations	GoKart_Track (N:1): the track the go-kart is dedicated to
	GoKart_GoKartModel (N:1): the model of the go-kart
Superconcepts	None
Subconcepts	None



Name	Timetable
Synonym	None
Description	Timetable
Example of instance	TrackName: T1
Properties	TrackName: the name of the track
Components	None
Relations	Timetable_Track (1:1): the track the timetable belongs to
	Timetable_Reservation (1:N): the reservations of the timetable
Superconcepts	None
Subconcepts	None



Name	Leaderboard
Synonym	Ranking
Description	Leaderboard
Example of instance	Title: Best of the week
	TrackName: T1
Properties	Title: the title of the leaderboard
	TrackName: the name of the track
Components	None
Relations	Leaderboard_Track (N:1): the track each leaderboard belongs to
	Leaderboard_LapTime (N:N): the lap times the leaderboard fo-
	cuses on
Superconcepts	None
Subconcepts	None



Name	Race
Synonym	None
Description	Race
Example of instance	ID: 2036
	Date: 2024-02-15
	Start: 15:00
	End: 15:09
	ForEvent: false
	GoKartingCenterName: Mantova Karting Center
	TrackName: T1
	nParticipants: 8
	fastestLapTime: 00:00:48.595
Properties	ID
	Date
	Start
	End
	ForEvent: whether the race was created by an organizer for an
	event or not
	GoKartingCenterName
	TrackName: the name of the track that hosts the race
	nParticipants
	fastestLapTime
Components	Reservation



Relations	Race_Track (N:1): the track the race has been raced on
	Race_Reservation (1:1): the reservation that has been made for
	the race
	Race_Pilot (N:N): the pilots that participated in the race
	Race_LapTime (1:N): every lap-time of every pilot that partici-
	pated in the race
	Race_Event (N:1): the event the race is part of
	Race_Pilot (1:N): the pilots who have this race as their last race
	Race_Laptime (1:1): the best lap-time of the race
Superconcepts	None
Subconcepts	None



Name	Reservation
Synonym	Booking
Description	Reservation
Example of instance	Date: 2024-02-15
	Start: 15:00
	End: 15:09
	ReservedByPilot: denisfesta
	ReservedByOrganizer: None
	ConfirmedByClerk: Jessica
Properties	Date
	Start
	End
	ReservedByPilot: the pilot who made the reservation (this prop-
	erty is mutually exclusive with ReservedByOrganizer)
	ReservedByOrganizer: the organizer who made the reservation
	(this property is mutually exclusive with ReservedByPilot)
	ConfirmedByClerk: the clerk who confirmed the reservation
Components	None
Relations	Reservation_Timetable (N:1): the timetable where the reserva- tion is stored
	Reservation_Pilot (N:1): the pilot who made the reservation
	Reservation_Organizer (N:1): the organizer who made the reser-
	vation
	Reservation_Clerk (N:1): the clerk who confirmed the reservation
	Reservation_Race (1:1): the race this reservation has been made
	for
Superconcepts	None
Subconcepts	None



Name	Lap-time
Synonym	Lap
Description	Lap-time
Example of instance	LapNumber: 7
	LapTime: 00:00:48.595
Properties	LapNumber: the LapNumber-th lap
	LapTime: the time measured for the LapNumber-th lap for a
	particular pilot
Components	None
Relations	LapTime_Pilot (N:1): the pilot who made the lap-time
	LapTime_Race (N:1): the race where the lap-time has been made
	LapTime_Race (1:1): in case the lap-time is the best of a race
	LapTime_Leaderboard (N:N): the leaderboards where the lap-
	time is displayed
Superconcepts	None
Subconcepts	None



Name	Application
Synonym	Request
Description	Application
Example of instance	Confirmed: true
	EventName: Mantova Karting Cup 2024
	RequestFromPilot: denisfesta
Properties	Confirmed: whether the application has been confirmed or not (the organizer who created the event is the only one who can accept an application) EventName: the name of the event the application has been made for RequestFromPilot: the pilot who made the application
Components	None
Relations	Application_Pilot (N:1): the pilot who made the application Application_Event (N:1): the event the application has been made for
Superconcepts	None
Subconcepts	None



Name	Event
Synonym	Tournament
Description	Event
Example of instance	Name: Mantova Karting Cup 2024
	Price: 100
	FirstDate: 2024-02-15
	OrganizerName: WD40
	EventCategory: Open
	nParticipants: 64
	nRaces: 12
	nReviews: 23
	avgReviewScore: 4.5
Properties	Name: the name of the event
	Price: the price of the event
	FirstDate: the date of the first race of the event
	OrganizerName: the username of the organizer who created the
	event
	EventCategory: the category of the event (open, intermediate,
	pro)
	nParticipants: the number of pilots who applied for the event
	and whose application was confirmed
	nRaces: the number of races of the event
	nReviews: the number of written reviews about the event
	avgReviewScore: the average score of the reviews about the event
Components	EventReview



Relations	Event_Organizer (N:1): the organizer who created the event
	Event_Application (1:N): the applications received for the event
	Event_Race (1:N): the races of the event
	Event_EventCategory (N:1): the category of the event
	Event_EventReview (1:N): the reviews about the event
	Event_ReviewScoreRange (N:1): the range within the average score of the reviews about the event falls
	Event_Pilot (N:N): the pilots who applied for the event and whose application was confirmed
	Event_PriceRange (N:1): the range within the price of the event
	Event_City (N:N): the cities where the races of the event took place
	Event_Track (N:N): the tracks that hosted the races of the event
	Event_KartingCenter (N:N): the karting centers whose tracks
	hosted the races of the event
Superconcepts	None
Subconcepts	Controversial event, Popular evenet, Upcoming event





Name	Review
Synonym	Opinion
Description	Review
Example of instance	TextReview: Fantastic track, with a lot of bumps and holes.
	Score: 4/5
Properties	TextReview: the text of the review
	Score: the score of the review
Components	None
Relations	None
Superconcepts	None
Subconcepts	KartingCenterReview, TrackReview, EventReview



Name	KartingCenterReview
Synonym	None
Description	Karting center review
Example of instance	TextReview (inherited from Review): Very rude and violent staff,
	but nice tracks!
	Score (inherited from Review): 4/5
Properties	None
Components	None
Relations	KartingCenterReview_KartingCenter (N:1): the karting center
	the review is about
	KartingCenterReview_Pilot (N:1): the pilot who wrote the review
Superconcepts	Review
Subconcepts	None



Name	TrackReview
Synonym	None
Description	Track review
Example of instance	TextReview (inherited from Review): The track is very nice, but
	the asphalt is not in good conditions.
	Score (inherited from Review): 3/5
Properties	None
Components	None
Relations	TrackReview_Track (N:1): the track the review is about
	TrackReview_Pilot (N:1): the pilot who wrote the review
Superconcepts	Review
Subconcepts	None



Name	EventReview
Synonym	None
Description	Event review
Example of instance	TextReview (inherited from Review): The event was a mess, delayed a couple of times and some pilots were not correctly registered. Score (inherited from Review): 2/5
Properties	None
Components	None
Relations	EventReview_Event (N:1): the event the review is about EventReview_Pilot (N:1): the pilot who wrote the review
Superconcepts	Review
Subconcepts	None



Name	User
Synonym	None
Description	User
Example of instance	Username: denisfesta
	Password: 12345asdf!
	Email: d.festa004@studenti.unibs.it
	Name: Denis
	Surname: Festa
	Address: Via Trento 5, Rovato (BS)
Properties	Username: the username of the user
	Password: the password of the user
	Email: the email address of the user
	Name: the name of the user
	Surname: the surname of the user
	Address: the address of the user
Components	None
Relations	None
Superconcepts	None
Subconcepts	Admin, KartingCenterAdmin, Clerk, Organizer, Pilot



Name	Admin
Synonym	Administrator
Description	The administrator does not have any relation with other entities of the information system but is needed to create karting center administrators, organizers and all the auxiliary objects useful for the visitor to explore easily.
Example of instance	Empty (all the properties are inherited from User)
Properties	None
Components	None
Relations	None
Superconcepts	User
Subconcepts	None



Name	KartingCenterAdmin
Synonym	None
Description	Karting center administrator
Example of instance	Empty (all the properties are inherited from User)
Properties	None
Components	None
Relations	KartingCenterAdmin_KartingCenter (1:N): the karting centers
	the administrator is in charge of
Superconcepts	User
Subconcepts	None



Name	Clerk
Synonym	None
Description	Clerk
Example of instance	Empty (all the properties are inherited from User)
Properties	None
Components	None
Relations	Clerk_KartingCenter (N:1): the karting center the clerk works for
	Clerk_Reservation (1:N): the reservations the clerk confirmed
Superconcepts	User
Subconcepts	None



Name	Organizer
Synonym	None
Description	Organizer
Example of instance	Empty (all the properties are inherited from User)
Properties	None
Components	None
Relations	Organizer_Event (1:N): the events the organizer created
	Organizer_Reservation (1:N): the reservations the organizer re-
	quested
Superconcepts	User
Subconcepts	None



Name	Pilot
Synonym	None
Description	Pilot
Example of instance	Username (inherited from User): denisfesta Password (inherited from User): 12345asdf! Email (inherited from User): d.festa004@studenti.unibs.it Name (inherited from User): Denis Surname (inherited from User): Festa Address (inherited from User): Via Trento 5, Rovato (BS) Age: 25 Weight: 70
Properties	Age: the age of the pilot Weight: the weight of the pilot
Components	None
Relations	Pilot.KartingCenterReview (1:N): the reviews the pilot wrote about karting centers Pilot.TrackReview (1:N): the reviews the pilot wrote about tracks Pilot.EventReview (1:N): the reviews the pilot wrote about events Pilot.Application (1:N): the applications the pilot made Pilot.Reservation (1:N): the reservations the pilot made Pilot.Track (N:N): the tracks the pilot has as favorite Pilot.Race (N:N): the traces the pilot participated in Pilot.LapTime (1:N): the lap-times the pilot made Pilot.Race (N:1): the last race the pilot participated in Pilot.Event (N:N): the vents the pilot was accepted to participate in
Superconcepts	User
Subconcepts	None



February 2, 2024

Name	ReviewScoreRange
Synonym	None
Description	Review score range
Example of instance	LowerBoundIncluded: 1
	UpperBoundExcluded: 3
Properties	LowerBoundIncluded: the lower bound of the range
	UpperBoundExcluded: the upper bound of the range
Components	None
Relations	ReviewScoreRange_KartingCenter (1:N): the karting centers
	whose average review score falls in the range
	ReviewScoreRange_Track (1:N): the tracks whose average review
	score falls in the range
	ReviewScoreRange_Event (1:N): the events whose average review
	score falls in the range
Superconcepts	None
Subconcepts	None



Name	NPilotsRange
Synonym	None
Description	A range of number of pilots
Example of instance	LowerBoundIncluded: 0
	UpperBoundExcluded: 100
Properties	LowerBoundIncluded: the lower bound of the range
	UpperBoundExcluded: the upper bound of the range
Components	None
Relations	NPilotsRange_KartingCenter (1:N): the karting centers whose number of pilots falls in the range
	NPilotsRange_Track (1:N): the tracks whose number of pilots
	falls in the range
Superconcepts	None
Subconcepts	None



Name	NRacesRange
Synonym	None
Description	A range of number of races
Example of instance	LowerBoundIncluded: 10000
	UpperBoundExcluded: 20000
Properties	LowerBoundIncluded: the lower bound of the range
	UpperBoundExcluded: the upper bound of the range
Components	None
Relations	NRacesRange_KartingCenter (1:N): the karting centers whose number of races (the sum of all the races on all the tracks of that karting center) falls in the range NRacesRange_Track (1:N): the tracks whose number of races that took place on them falls in the range
Superconcepts	None
Subconcepts	None



Name	NEventsRange
Synonym	None
Description	A range of number of events
Example of instance	LowerBoundIncluded: 0
	UpperBoundExcluded: 10
Properties	LowerBoundIncluded: the lower bound of the range
	UpperBoundExcluded: the upper bound of the range
Components	None
Relations	NEventsRange_KartingCenter (1:N): the karting centers whose
	number of hosted events falls in the range
	NEventsRange_Track (1:N): the tracks whose number of events
	that took place on them falls in the range
Superconcepts	None
Subconcepts	None



Name	GoKartModel
Synonym	None
Description	Go-kart model
Example of instance	GoKartModel: Sodi RX7
Properties	GoKartModel: the name of the go-kart model
Components	None
Relations	GoKartModel_GoKart (1:N): the go-karts of that model GoKartModel_Track (N:N): the tracks where that model is avail- able
Superconcepts	None
Subconcepts	None



Name	TrackAsphalt
Synonym	None
Description	Track asphalt
Example of instance	TrackAsphalt: Asphalt
Properties	TrackAsphalt: the name of the track asphalt
Components	None
Relations	TrackAsphalt_Track (1:N): the tracks with that asphalt
Superconcepts	None
Subconcepts	None



Name	TrackDifficulty
Synonym	None
Description	Track difficulty
Example of instance	TrackDifficulty: Intermediate
Properties	TrackDifficulty: the name of the track difficulty
Components	None
Relations	TrackDifficulty_Track (1:N): the tracks with that difficulty
Superconcepts	None
Subconcepts	None



Name	TrackLengthRange
Synonym	None
Description	Track length range
Example of instance	LowerBoundIncluded: 0
	UpperBoundExcluded: 300
Properties	LowerBoundIncluded: the lower bound of the range
	UpperBoundExcluded: the upper bound of the range
Components	None
Relations	TrackLengthRange_Track (1:N): the tracks whose length falls in
	the range
Superconcepts	None
Subconcepts	None



Name	PopularTrack
Synonym	None
Description	A popular track is a track that has been selected as favorite by at least N pilots. This subclass of Track is to be considered as a view of the database that invites the visitor during its navigation and at the same time speeds up the execution of the query.
Example of instance	Empty (all the properties are inherited from Track)
Properties	None
Components	None
Relations	None
Superconcepts	Track
Subconcepts	None



Name	ControversialEvent
Synonym	None
Description	A controversial event is an event that has received at least <i>N</i> reviews with a score lower than 25% of the maximum score and at least <i>N</i> reviews with a score higher than 75% of the maximum score. This subclass of Event is to be considered as a view of the database.
Example of instance	Empty (all the properties are inherited from Event)
Properties	None
Components	None
Relations	None
Superconcepts	Event
Subconcepts	None



Name	PopularEvent
Synonym	None
Description	A popular event is an event that already took place, to which at least N pilots participated and that received at least N reviews. This subclass of Event is to be considered as a view of the database.
Example of instance	Empty (all the properties are inherited from Event)
Properties	None
Components	None
Relations	None
Superconcepts	Event
Subconcepts	None



Name	UpcomingEvent
Synonym	None
Description	An upcoming event is an event that has not yet taken place, its attribute FirstDate is in the future.
	This subclass of Event is to be considered as a view of the database.
Example of instance	Empty (all the properties are inherited from Event)
Properties	None
Components	None
Relations	None
Superconcepts	Event
Subconcepts	None



Name	PriceRange
Synonym	None
Description	A range of price of the events
Example of instance	LowerBoundIncluded: 0 UpperBoundExcluded: 50
Properties	LowerBoundIncluded: the lower bound of the range UpperBoundExcluded: the upper bound of the range
Components	None
Relations	PriceRange_Event (1:N): the events whose price falls in the range
Superconcepts	None
Subconcepts	None



Name	EventCategory
Synonym	None
Description	The event can be open to every pilot (entry level difficulty), in- termediate (for those pilots that feel more competitive) and pro (only pilots that show up at a high rank in the leaderboards can participate).
Example of instance	EventCategory: Open
Properties	EventCategory: the name of the event category
Components	None
Relations	EventCategory_Event (1:N): the events from that category
Superconcepts	None
Subconcepts	None



Site View	Publ	ic view	
Description	Empty		
User Groups	Visitor, Pilot, Clerk, Organizer, Karting center administrator, Information system administrator		
Use Cases	Register, Login, Explore karting centers by city, Explore karting centers by number of races, Explore karting centers by number of pilots, Explore karting centers by number of events, Explore karting centers by average review score, View all karting centers hosting upcoming events, Read details on karting center, Read reviews on karting center, Explore tracks in a karting center, Explore events by karting center, Explore tracks by asphalt type, Explore tracks by difficulty, Explore tracks by length, Explore tracks by city, Explore tracks by number of fraces, Explore tracks by number of pilots, Explore tracks by number of events, Explore tracks by average review score, Read details on track, Read reviews on track, Explore events by track, Explore leaderboards, Explore races from track, Explore alpetimes of a race, Explore pilots from track, Read details on pilot, Explore events from pilot, Explore events by city, Explore events by average review score, Explore events by picategory, Explore events by poularity, Explore upcoming events, Explore controversial events, Read details on event, Explore karting centers by event, Explore tracks by event, Explore pilots from event, Explore races from event, Read reviews on event. Site View Map		
Area Name	Area Description	Objects	Priority
Home	Empty	UpcomingEvent, Track, Kart- ingCenter	High



KartingCenter	Empty	KartingCenter, City, NPilot- sRange, NRacesRange, NEventsRange, ReviewScor- eRange	High
Tracks	Empty	Track, TrackAsphalt, TrackDif- ficulty, TrackLengthRange, City, NPilotsRange, NRacesRange, NEventsRange, ReviewS- coreRange, GoKartModel, PopularTrack	High
Event	Empty	Event, City, ReviewScoreRange, PriceRange, EventCategory, PopularEvent, Controver- sialEvent, UpcomingEvent	High
Race	Empty	Race	Medium
Pilot	Empty	Pilot	Medium
Laptime	Empty	LapTime	Low
Leaderboard	Empty	Leaderboard	Medium
Review	Empty	KartingCenterReview, TrackReview, EventReview	Medium



Site View	Pilot		
Description	Empty		
User Groups	Pilot		
Use Cases	Logout, Read my details, Explore not yet confirmed reservations, C.U.D. races and reservations, Explore confirmed reservations, Explore my past races, Read details on race, Create review of karting center, Create review of track, Explore upcoming events applied to but not confirmed yet, Explore upcoming events not applied to, Explore my past events, Apply to an event, Read details on event, Create review of event.		
Site View Map			
Area Name	Area Description	Objects	Priority
Home	Empty	Pilot, Race, Event	High
Reservations	Empty	Race, Reservation	High
Race	Empty	Race, LapTime, KartingCenter, KartingCenterReview, Track, TrackReview (Pilot, Track, Timetable and KartingCenter when operating on Race)	High
Event	Empty	Event, EventReview, Application	High



Site View		Organizer	
Description	Empty		
User Groups	Organizer, Information system adm	ninistrator	
Use Cases		details on my event, U.D. events, Cons, Confirm application, Explore races of reate race	
	Site View N	Лар	
Area Name	Area Description	Objects	Priority
Home	Empty	Event, Application	High
Event	Empty	Event, Application, Race (EventCategory and Organizer when operating on Event, Pilot, Track, Timetable and Karting- Center when operating on Race)	High



Site View		Clerk	
Description	Empty		
User Groups	Clerk, Information system add	ministrator, Karting center administrator	
Use Cases	Read review on karting centor track, Read review on track, review on event, Delete review	Logout, Explore reservations, Confirm reservation, Explore reviews on karting center, Read review on karting center, Delete review on karting center, Explore reviews on track, Read review on track, Delete review on track, Explore reviews on event, Read review on event, Delete review on event	
	Site V	iew Map	
Area Name	Area Description	Objects	Priority
Home	Empty	Clerk, KartingCenterReview, TrackReview, EventReview	
Reservation	Empty	Track, Reservation (Timetable as the list of reservations)	_
Review	Empty	KartingCenterReview, TrackReview, EventReview, Pilot	High



Site View	Kartin	Karting center administrator		
Description	Empty			
User Groups	Karting center administrator, Info	rmation system administrator		
	Logout, Explore my karting center	Logout, Explore my karting centers, Explore pilots by karting center, Explore pilots,		
	Read details on pilot, U.D. pilot, (Create pilot, Explore clerks by karting cen	iter, Explore	
	clerks, Read details on clerk, U.D.	 clerk, Create clerk, Explore tracks (re 	lated to my	
Use Cases	karting centers), Explore tracks b	y karting center, Read details on track,	U.D. track,	
	Create track, Explore races (relate	ed to my karting centers), Read details o	n race, U.D.	
	race, Create race, Explore go-kar	rts dedicated to tracks of my karting co	enters, U.D.	
	go-kart dedicated to track, Create	e go-kart		
	Site View	Мар		
Area Name	Area Description	Objects	Priority	
		KartingCenterAdministrator,		
Home	Empty	KartingCenter, Pilot, Clerk,	High	
		Track		
KartingCenter	Empty	KartingCenter, City	High	
		Track, (GoKartModel, TrackAs-		
Track	Empty	phalt and Track when operating	High	
		on Track)		
		Race, Reservation (Timetable as	5	
Race	Empty	the list of reservations, Pilot,	High	
INACE	Empty	Track and KartingCenter when		
		operating on Race)		
Pilot	Empty	Pilot	High	
Clerk	Empty	Clerk (Karting center when op-	High	
Cicix	Empty	erating on Clerk)	' ''g''	



Site View

Description	Empty		
User Groups	Information system administrator		
Use Cases	Logout, Explore karting center administrators, Read details on karting center administrator, U.D. karting center administrator, Create karting center administrator, Explore karting centers, Read details on karting center, U.D. karting center, Create karting center, Explore organizers, Read details on organizer, U.D. organizer, Create organizer C.R.U.D. cities, C.R.U.D. go-kart models, C.R.U.D. track asphalt types, C.R.U.D. track difficulties, C.R.U.D. track length ranges, C.R.U.D. review score ranges, C.R.U.D. pilots ranges, C.R.U.D. n. races ranges, C.R.U.D. n. events ranges, C.R.U.D. pric ranges, C.R.U.D. event categories		
	Site Vie		
Area Name	Area Description	Objects	Priority
Home	Empty	Admin	High
K.C.Administrator	Empty	KartingCenterAdministrator (KartingCenter when operating on KartingCenterAdministrator	
KartingCenter	Empty	KartingCenter, (City and Kart ingCenterAdministrator when creating KartingCenter, Kart ingCenterReview deleted when deleting KartingCenter)	n - High
Organizer	Empty	Organizer	High
		City, GoKartModel, Track Asphalt, TrackDifficulty	

Information system administrator



ReviewS-

NPilotsRange,

4 D F 4 P F F F F F F

TrackLengthRange,

NRacesRange, NEventsRange,

PriceRange, EventCategory

coreRange,

AuxiliarvEntity

Empty