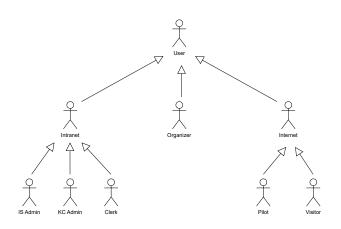
#### Karting report

Denis Festa

February 1, 2024



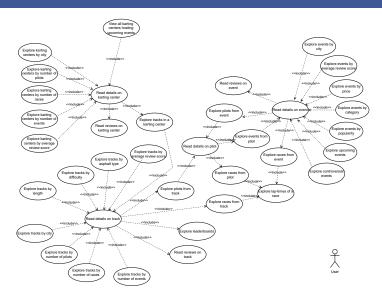
# User groups







#### User





Title	Explore karting centers by city
Goal	The user seeks 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 seeks 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 seeks 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 seeks 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 seeks 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 tracks by asphalt type
Goal	The user seeks 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 seeks 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 seeks 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.



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Title	Explore tracks by city
Goal	The user seeks 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 seeks 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 seeks 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 seeks 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 seeks 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.

Karting report



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 partecipated 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 partecipants and 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.





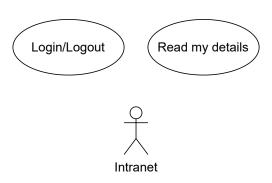
Title	Explore pilots from event
Goal	The user chooses one event to focus on and explores the pilots
	that partecipated to the event.
Precondition	The user chose an event from a list of events (obtained from any
	of the previous use cases).
Postcondition	The user obtains a list of pilots in the area dedicated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

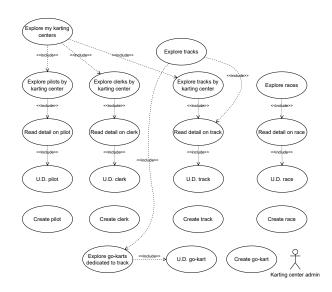


#### Intranet





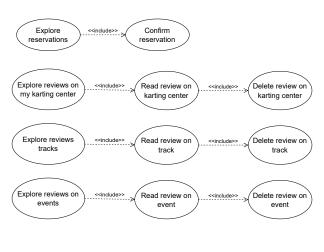
#### Karting center administrator







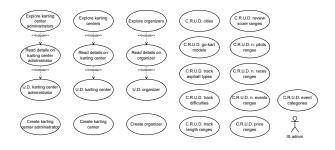
#### Clerk







#### Information system administrator



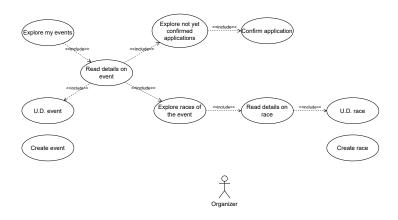


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Denis Festa Karting report February 1, 2024

# 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	<ul> <li>A: the user already has a list of events he created and the applications received for each event in the homepage.</li> <li>B: the user moves to the area dedicated to events and the list is already provided.</li> </ul>



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	<ul> <li>- A: the user chooses one event from the list of events he created in the homepage.</li> <li>- B.1: the user moves to the area dedicated to events.</li> <li>- B.2: the user chooses one event from the list of events he created in the area dedicated to events.</li> <li>- The user chooses the option to update or delete the event.</li> </ul>



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 partecipant 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.)



Read details on race
The user logged in, created at least one event and the event has
at least one race.
The user obtains the details on the race and can move on (e.g.
updating or deleting it.)
- 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.

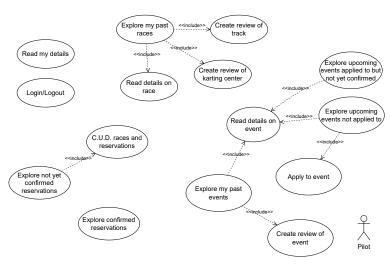


Title	U.D. race
Precondition	The user logged in, created at least one event and the event has
	at least one race.
Postcondition	The race gets updated or deleted, this affects the relations with the pilots (partecipation) but not the application of the pilots to the event.
Workflow	A: the user chooses 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.



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.



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.



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









# Karting center administrator

Group name	Karting center administrator
Profile data	Name, Surname, e-mail address, password, address, phone num-
	ber
Super group	Intranet
Sub group	None
Relevant use cases	CRUD on events, races, pilots, tracks, leaderboard, login, logout
Read	All
Write	All

Karting report



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#### Pilot

Group name	Pilot
Profile data	Name, Surname, e-mail address, password, address, phone num-
	ber
Super group	Internet
Sub group	None
Relevant use cases	Create a race, Apply for an event, login, logout
Read	All
Write	Race, Leaderboard



# Karting center

Name	Karting center
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	None



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_KCReviewScoreRange (N:1) the range within the average score of the reviews of the karting center falls
	KartingCenter_Event (N:N) the events the karting center hosted
Superconcepts	None
Subconcepts	None



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# City

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



# Track

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
	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: the timetable of the track
	Leaderboard: a leaderboard of the track



Relations	Track_KartingCenter (N:1): the karting center the track belongs
relations	to
	Track_TrackReview (1:N): the reviews of the track
	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
	favorite
	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 pilots 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_TrackReviewScoreRange (N:1): the range within the av-
	erage score of the reviews of the track falls
Superconcepts	None
Subconcepts	Popular track: a track that is recurrent in the list of favorite
	tracks of pilots





## Go-kart

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



## Timetable

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



## Leaderboard

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 (1: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
	nPartecipants: 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
	nPartecipants
	fastestLapTime
Components	None



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 (1:N): the pilots that participated in the race
	Race_Pilot (N:1): the pilot who has this race as his/her last race Race_LapTime (1:N): every lap-time of every pilot that participated in the race Race_Event (N:1): the event the race is part of
Superconcepts	None
Subconcepts	None



## Reservation

Name	Reservation
Synonym	Booking
Description	Reservation
Example of instance	Date: 2024-02-15
-	Start: 15:00
	End: 15:09
	ReservedByPilot: Denis Festa
	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 (N:1): the race this reservation has been made
	for
Superconcepts	None
Subconcepts	None



# Lap-time

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_Leaderboard (N:N): the leaderboards where the lap-
	time is displayed
Superconcepts	None
Subconcepts	None



# Application

Name	Application
Synonym	Request
Description	Application
Example of instance	Confirmed: true
	EventName: Mantova Karting Cup 2024
	RequestFromPilot: Denis Festa
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
	nPartecipants: 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)
	nPartecipants: 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	None



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_EReviewScoreRange (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





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