Karting report

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User groups
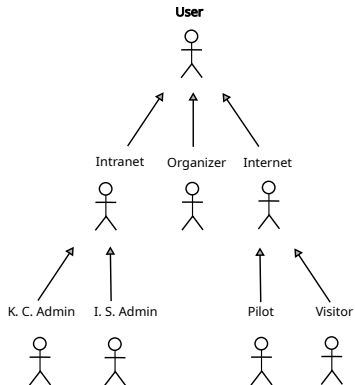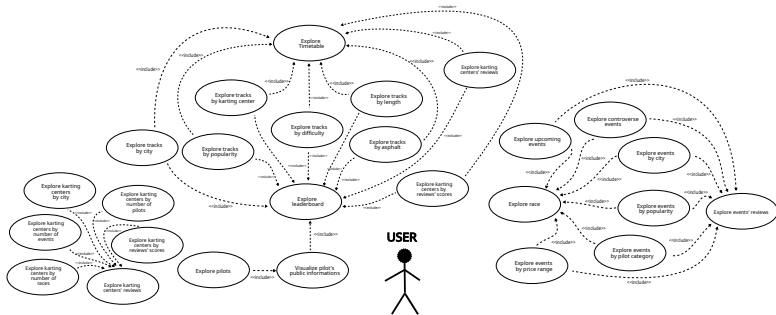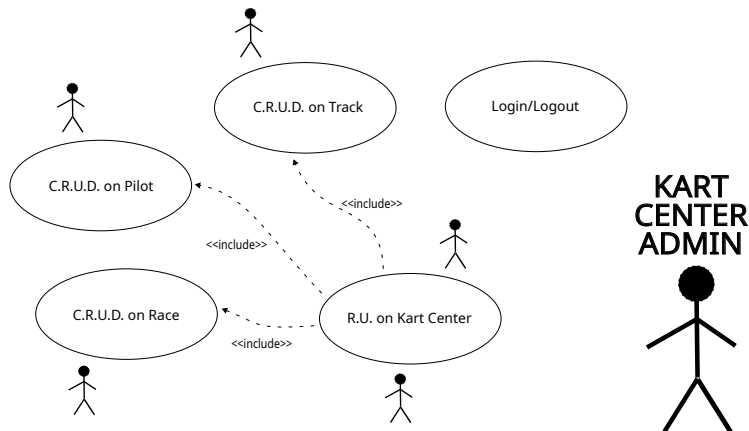

Figure: User groups

Kart center administrator

Clerk
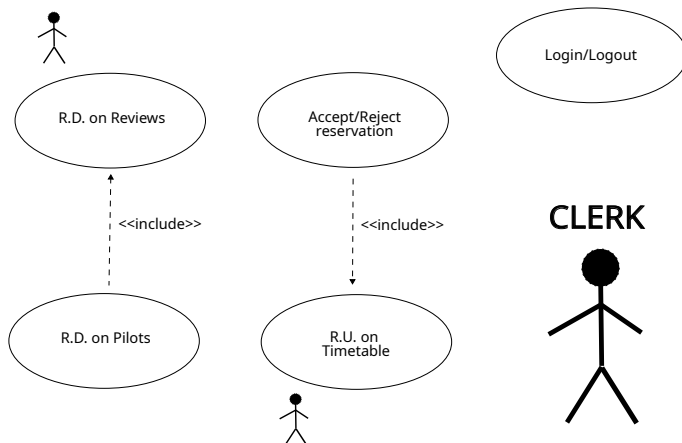
Information system administrator

Pilot

Visualize/Modify personal informations

R.U. on Timetable

Login/Logout

<<include>>

Apply for event

C.R.U.D. on Race

<<include>>

PILOT

<<include>>

Write a review

<<include>>

Ask for reservation

<<include>>

Explore my events

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Register
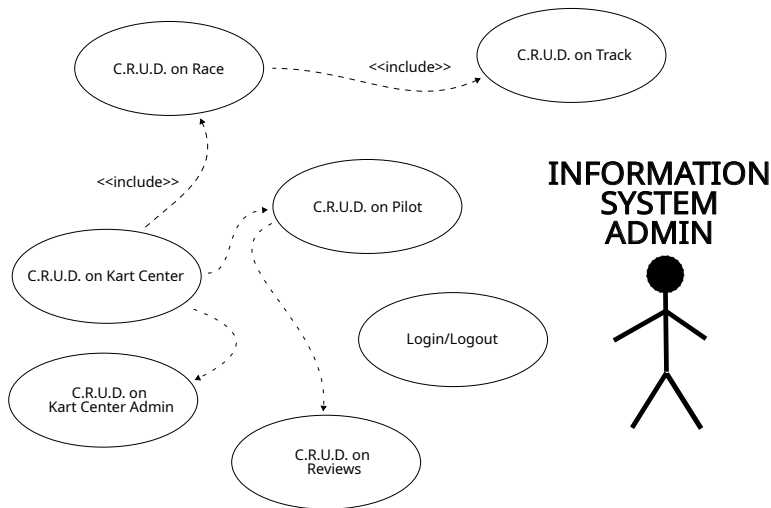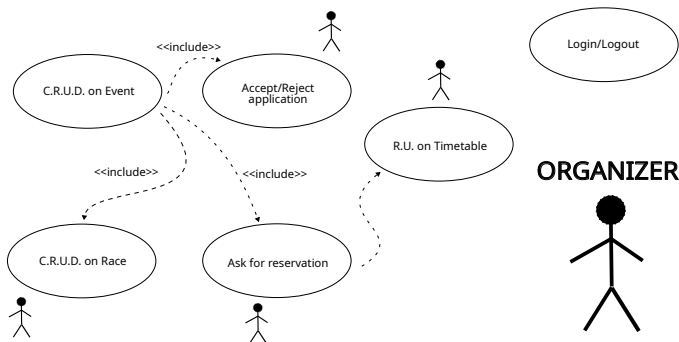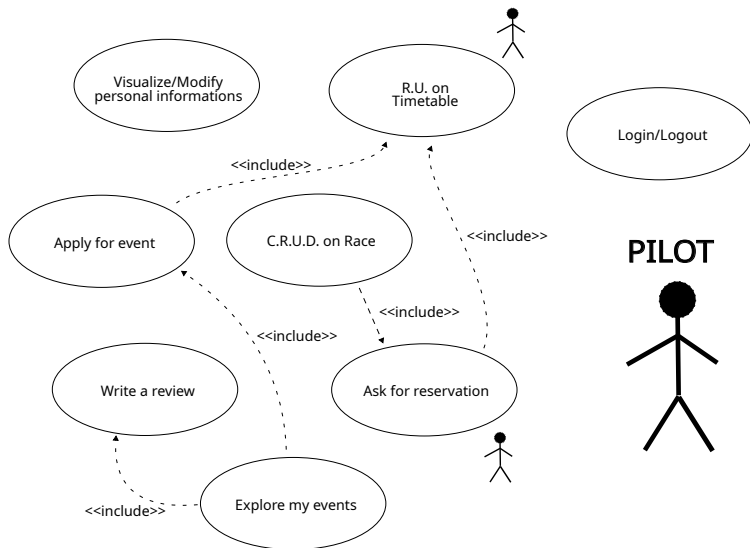
VISITOR
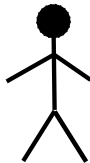
Karting center administrator

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

Pilot

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

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

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

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 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 average score of the reviews of the track falls
Superconcepts	None
Subconcepts	PopularTrack: a track that is recurrent in the list of favorite tracks of pilots

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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 focuses on
Superconcepts	None
Subconcepts	None

Race

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 property 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 reservation is stored Reservation_Pilot (N:1): the pilot who made the reservation Reservation_Organizer (N:1): the organizer who made the reservation 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