## Class Specifications

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**Class Name:**

Registration

**Documentation:**

**Definition:**

* The process of obtaining athletes who have successfully completed all qualification rounds prior to the Winter Olympics.
* Places athletes into their respective team.
* Places athletes into a specified event.

**Constraints:**

* Sets a maximum limit of athletes per event.
* Set a maximum limit on number of teams in the Winter Olympics.

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**Class Name:**

Team

**Documentation:**

**Definition:**

Represents each country in the Winter Olympics.

**Constraints:**

* There must be the same amount of males as females in a team.
* There is to be only one team per country.

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**Class Name:**

Athlete

**Documentation:**

**Definition:**

An individual who is a part of a team in the Winter Olympics.

**Constraints:**

Can only be registered if maximum allotted space on their respective team has not been reached. This also includes the gender portion.

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**Class Name:**

Schedule

**Documentation:**

**Definition:**

* The chronological listing of events over the course of two weeks.
* Shows where and when events are held.

**Constraints:**

* Must not organize events such that they happen concurrently on the same rink.
* Must not allot more than the appropriate amount of athletes per event.
* Must make sure any event that is done as a pair contains one male and one female athlete per team.

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**Class Name:**

Scoring

**Documentation:**

**Definition:**

The act of taking the judge's scores that are given to the athlete or pair of athletes at their respective event.

**Constraints:**

* Expunges the highest and lowest scores an individual or pair receives.
* Total score is the average of the remaining judge’s scores.
* Timed events utilize time as the score (which a judge verifies).

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**Class Name:**

Judge

**Documentation:**

**Definition:**

* A qualified person to score and assess each event.
* Independent of all teams and free of any bias.

**Constraints:**

* Provides a score ranging from 0 through 100 on scored events.
* Verifies accurate timing on timed events.
* Remains corruption-free and has no contact with any team.

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**Class Name:**

Database

**Documentation:**

**Definition:**

* Collection of all information for all events in the winter Olympics.
* Collection of all registrants’ information.

**Constraints:**

Must contain information apropos to the event and registrants at hand.

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**Class Name:**

Event

**Documentation:**

**Definition:**

The specific competition at a specified rink determined by the schedule.

**Constraints:**

* Limited to the six official events of the Winter Olympics.
* Events will not disturb those who are not registered for that specific event.

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**Class Name:**

Rink

**Documentation:**

**Definition:**

The location of each event determined by the schedule.

**Constraints:**

* May only be occupied by one event at any given time.
* Must be in operation concurrent with the other rinks.

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**Class Name:**

Figure Skating

**Documentation:**

**Definition:**

Skating done on ice in synchronization with music that is scored based upon technical tricks and/or the synchronization of each athlete in a pair. One of the two main sporting categories that consist of three unique events which athletes participate separately as well as in pairs.

**Constraints:**

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**Class Name:**

Singles Skating

**Documentation:**

**Definition:**

* Form of figure skating where athletes participate individually.
* Utilizes the long program scenario where each athlete is free to do their own unique performance complete with technical tricks.

**Constraints:**

* Each athlete performs solo on the rink at a given time.
* Total duration of performance is 4 minutes and 30 seconds.

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**Class Name:**

Pair Skating

**Documentation:**

**Definition:**

* Form of figure skating where athletes participate in pairs.
* Utilizes the long program scenario where each pair is free to do their own unique performance complete with technical tricks.

**Constraints:**

* The pairs are male/female.
* Each pair performs solo on the rink at a given time.
* Total duration of performance is 4 minutes and 30 seconds.

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**Class Name:**

Ice Dance

**Documentation:**

**Definition:**

* Form of figure skating where athletes participate in pairs.
* Both members of the pair skate in tandem with the omission of technical tricks.

**Constraints:**

* The pairs are male/female.
* Each pair performs solo on the rink at a given time.
* Total duration of performance is 4 minutes and 30 seconds.

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**Class Name:**

Speed Skating

**Documentation:**

**Definition:**

Skating done on ice at a fast pace around an oval track utilizing inline skates where scoring is based upon time. One of the two main sporting categories that consist of three unique events which athletes participate separately.

**Constraints:**

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**Class Name:**

SS500m

**Documentation:**

**Definition:**

* Speed Skating 500m has athletes race around a 400m track 1.25 times.
* The athlete that crosses the finish line first has the lowest time.

**Constraints:**

A maximum of four athletes compete at a given time.

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**Class Name:**

SS1000m

**Documentation:**

**Definition:**

* Speed Skating 1000m has athletes race around a 400m track 2.5 times.
* The athlete that crosses the finish line first has the lowest time.

**Constraints:**

A maximum of four athletes compete at a given time.

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**Class Name:**

SS1500m

**Documentation:**

**Definition:**

* Speed Skating 1500m has athletes race around a 400m track 3.75 times.
* The athlete that crosses the finish line first has the lowest time.

**Constraints:**

A maximum of four athletes compete at a given time.