Thomas Behner

**Class name:**

Session;

**Documentation:**

**Definition:**

A session is an event of a conference in which two or more presenters will give a talk.

**Constraints:**

A session must be part of a conference. There cannot be more than two sessions of the same type at a time.

**Class name:**

Season

**Documentation:**

**Definition:**

A season is a measure of time in which sessions can take place in a single year.

**Constraints:**

There can only be four or fewer seasons within a year; only one season can exist at a time.

**Class name:**

Scheduling

**Documentation:**

**Definition:**

Scheduling is the means of organizing the times of multiple sessions in any given season, ensuring no sessions overlap in a given timeframe.

**Constraints:**

Scheduling can only act upon open or free time periods in a given season, assigning sessions to available times, pending room and equipment availability.

**Class name:**

Registration

**Documentation:**

**Definition:**

Registers a conference to take place in an available session. Registration also takes attendee data from user and fills an attendance slot in desired session. This class could also include payment methods as well as report whether or not a session is filled.

(Registration cont’d)

**Constraints**:

There must be sessions available for registration. Sessions that have reached maximum capacity or that do not have the required equipment will not be available for registration (This applies to both attendee and the conference being registered).

**Class name:**

Track\_Session

**Documentation:**

**Definition:**

Track\_Session is a class that keeps a detailed list of both regular and special sessions in a given season. Details include attendance, time and equipment requirements, and rooms. Special sessions could be defined as sessions that occupy multiple rooms, recur annually, or have particular needs outside of normal operations (increased handicapped accessibility, animals, children, etc).

**Constraints:**

**Class name:**

Inventory

**Documentation:**

**Definition:**

Inventory maintains a master list of all conference related equipment (such as projectors, microphones, etc.) and is used to not overbook conference sessions. If equipment is unavailable or insufficient for the conference needs, it cannot be booked until the current equipment stock can meet its needs.

**Constraints:**

Inventory keeps track of what is available for immediate use, and what is being repaired or needs maintenance. This class reports this information to the registration class, and to a separate maintenance software job ticketing system.

**Class name:**

Detect\_Dispatch

**Documentation:**

**Definition:**

Detect\_Dispatch is an alert system tied to the inventory class. When a piece of equipment malfunctions or needs immediate replacement, an alert is sent to the maintenance team. This piece of equipment is flagged as having reported a malfunction, then replaced and item is moved from the “available” list in inventory and marked as “unavailable” (or “out for repairs”).

**Constraints:**

This class cannot report that an item is currently being repaired unless explicitly marked by a technician. However, the malfunction “flag” that appears when a request is repaired can only be removed once repairs have been administered.

**Class name:**

Calculate\_Cost

**Documentation:**

**Definition:**

Calculate\_Cost determines the cost of a given session based on the amount of rooms, attendance, equipment required to host the session, and the desired season. This cost is then used to determine the registration fees for the user.

**Constraints:**

This class can only operate on the user-provided information and current rates for session registration based on the conference season. This class will assume all rooms and equipment is available once the data has been passed to it.