Relation Dictionary:

Relationship: Becomes

Description: Students or employees become faculty members of one or more clubs. Each club can have one or more students or employees becoming faculty. Clubs can have faculty members without any student or employee becoming faculty, but each student or employee can only become a faculty member of the clubs they are affiliated with.

Entities: Student, Employee, Club Faculty **Cardinality:** Many Students to Many Clubs

Participation: Partial-to-Partial

Relationship: Establishes

Description: Clubs establish one discussion forum. Each discussion forum is established by one club. Discussion forums can exist without being established by a club; clubs can exist without establishing discussion forums.

Entities: Club, Discussion Forum

Cardinality: One Club to One Discussion Forum

Participation: Total-to-Total

Relationship: Hosts

Description: Clubs are hosted by students or faculty members. A student or faculty member can host one

or more clubs.

Entities: Club, User (Student, Faculty)

Cardinality: Many Users (Students, Faculty) to Many Clubs

Participation: Partial-to-Partial

Relationship: Makes

Description: Each user can make one or more posts, and each post can be made by one or more users. Users may exist without making any posts, and posts may exist without being made by any user, but each post must be associated with at least one user, and each user may contribute to multiple posts.

Entities: User, Post

Cardinality: Many Users to Many Posts

Participation: Partial-to-Total

Relationship: Organizes

Description: Clubs organize one or more events. Events must be organized by one club. Events cannot exist without being organized by a club; clubs can exist without organizing events.

Entities: Club, Event

Cardinality: One Club to Many Events

Participation: Total-to-Partial

Relationship: Stored

Description: Posts are stored in one discussion forum. A discussion forum contains one or more posts. Posts cannot exist without being stored in a discussion forum, as there needs to be a place to post them.

However, a discussion forum can exist without containing any posts.

Entities: Post, Discussion Forum

Cardinality: One Discussion Forum to Many Posts

Participation: Total-to-Partial

Relationship: Subscribes

Description: Users subscribe to one or more clubs. Clubs have one or more subscribers. Users can exist

without subscribing to any club; clubs can exist without having any subscribers.

Entities: User, Club

Cardinality: Many Users to Many Clubs

Participation: Partial-to-Partial