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| **Entity Name** | **Description** | **Aliases** | **Occurrence** |
| Quiz | A sorted collection of flashcards | Test | Zero or more Quizzes are composed by one or more Flashcards. Each Quiz is a type of resource |
| Flashcard | A resource containing two sides of text |  | Each Flashcard is a type of Resource |
| Dictionary | A collection of flashcards related to a topic | Deck | One or more Dictionaries is composed by zero or more Flashcards. Each Dictionary is a type of Resource |
| Resource | Some form of learning material | Item | A Resource can be owned by one and only one user |
| Note | A resource containing one side of text, which can be formatted according to the user |  | Each Note is a type of Resource |
| User | Someone that has access to the system | Account | One user can own multiple Resources. Zero or more Users can participate in Foruums |
| Scholar | General user who does not have class creating privileges | Student | Each and every Scholar is a type of User |
| Educator | User with the ability to create and manage classes | Teacher | Each and every Educator is a type of User. One Educator can own one or multiple Classruums |
| Classruum | A group that allows Educators to share resources with Scholars | Class | One or multiple Classruums can be owned by one Educator |
| Foruum | A public domain conversation hub which can be directly related to a specific Classruum | Forum | A single Forum can or cannot be directly related to a specific Classruum |
| Comment | An interaction posted by the User on a specific Foruum | Interaction | Zero or more Comments are contained in a particular Forum |

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| **Entity** | **Multiplicity** | **Relationship** | **Multiplicity** | **Entity** |
| Quiz  Quiz | 0..\*  1..1 | IsComposedOf  IsaTypeOf | 1..\*  1..1 | Flashcard  Resource |
| Flashcard | 1..1 | IsaTypeOf | 1..1 | Resource |
| Dictionary  Dictionary | 1..\*  1..1 | IsComposedOf  IsaTypeOf | 0..\*  1..1 | Flashcard  Resource |
| Resource | None | None | None | None |
| Note | 1..1 | IsaTypeOf | 1..1 | Resource |
| User | 1..1  0..\* | Owns  CanParticipateIn | 0..\*  0..\* | Resource  Foruum |
| Scholar | 1..1 | IsaTypeOf | 1..1 | User |
| Educator | 1..1  1..1 | IsaTypeOf  CanCreate | 1..1  1..\* | User  Classruum |
| Classruum | 1..1 | HasA | 0..1 | Foruum |
| Foruum | 1..1 | Contains | 0..\* | Comment |
| Comment | None | None | None | None |

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| **Entity** | **Attributes** | **Description** | **Data type and Length** | **Nulls** | **Multi-Valued** |
| Quiz | QuizID  ResourceID  QuizName  QuizTopic | Uniquely identifies a quiz |  |  |  |
| Flashcard | FlashcardID  ResourceID  DictionaryID  QuizID  FrontContent  BackContent |  |  |  |  |
| Dictionary | DictionaryID  ResourceID  DictionaryName |  |  |  |  |
| Resource | ResourceID  UserID |  |  |  |  |
| Note | NoteID  ResourceID  NoteTitle  NoteContent |  |  |  |  |
| User | UserID  Username  Email  Password |  |  |  |  |
| Scholar | UserID |  |  |  |  |
| Educator | UserID |  |  |  |  |
| Classruum | ClassID  EducatorID  ClassName |  |  |  |  |
| Foruum | ForumID  ClassID  ForumTitle |  |  |  |  |
| Comment | CommentID  ForumID  CommentContent |  |  |  |  |

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| **Entity** | **Attributes** | **Description** | **Key** | **Nulls** |
| Quiz | QuizID  ResourceID  QuizName  QuizTopic |  |  |  |
| Flashcard | FlashcardID  ResourceID  DictionaryID  QuizID  FrontContent  BackContent |  |  |  |
| Dictionary | DictionaryID  ResourceID  DictionaryName |  |  |  |
| Resource | ResourceID  UserID |  |  |  |
| Note | NoteID  ResourceID  NoteTitle  NoteContent |  |  |  |
| User | UserID  Username  Email  Password |  |  |  |
| Scholar | UserID |  |  |  |
| Educator | UserID |  |  |  |
| Classruum | ClassID  EducatorID  ClassName |  |  |  |
| Foruum | ForumID  ClassID  ForumTitle |  |  |  |
| Comment | CommentID  ForumID  CommentContent |  |  |  |