

StudyBook

Design Document, version 1

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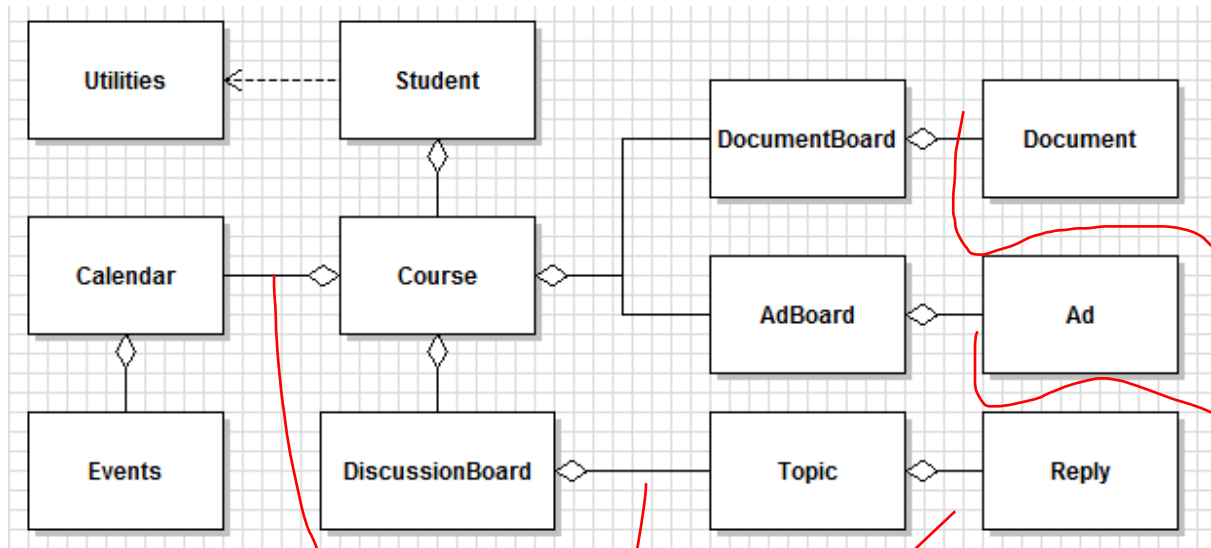
Lab Instructor:
Richard Sween

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1. Overview Class Diagram

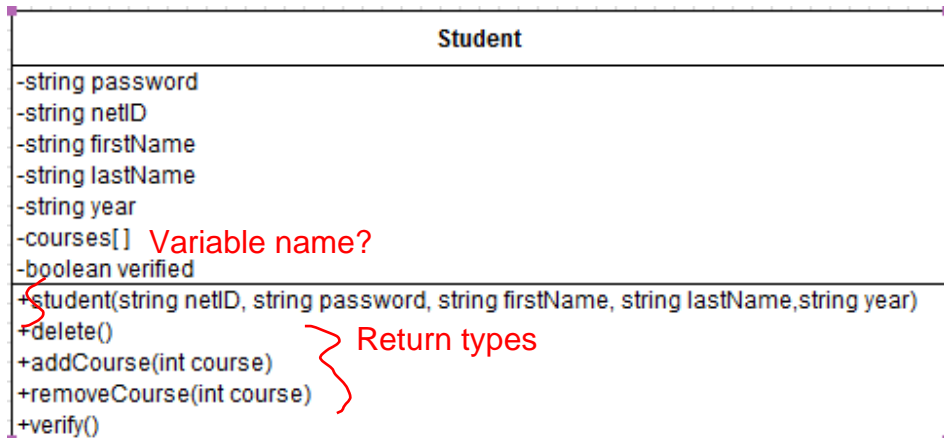


Shouldn't these all be composition relationships? When the container is destroyed, wouldn't the contents be also?

2. Detailed Class Diagrams

2.1. Data Classes

2.1.1. Student



- `Student(string netID, string password, string firstName, string lastName, string year)` : Constructor. Creates a new student in the database with the attributes given in the parameters.
- `delete()` : Deletes the student from the database permanently.
- `addCourse(int course)`: Adds a course to the student's `courses[]`. The course to be added is specified by the course number passes as a parameter to the method.
- `removeCourse(int course)`: Deletes a course from the student's `courses[]`. The course to be deleted is specified by the course number passes as a parameter to the method.
- `verify()` : Returns a boolean value as to whether the student is valid by sending an email with a randomly generated code to the student's msstate email account. If the student then enters the correct code, the method returns a True value.

2.1.2. Course

Course
-Calendar calendar
-string name
-int number
-AdBoard adBoard
-Discussionboard discussionBoard
-DocumentBoard documentBoard

Constructor? Load from
database methods?

2.1.3. Utilities

Utilities
Login(string netID, string password)
Logout(string netID)

- **L**/ogin(string netID, string password) : Queries the database for the student's password depending on the netID. Logs a student into the application and starts a new session provided the username and password are correct. Else, returns an error message.
- **L**/ogout(string netID) : Terminates the student's current session and logs out the student.

2.1.4. Calendar

Calendar
-Event events[]
+getCalendar(int month): Event[]
+getEvent(int id): Event

- getCalendar(int month) : Returns an array of Events with the matching month integer.
- getEvent(int id) : Returns the event matching the given id number.

Constructor?

2.1.5. Event

Event
-int day -int month -string description -string name int id +event(int day, int month, string description, string name) +deleteEvent()

- ~~E~~vent(int day, int month, string description, string name) : Constructor. Creates an event with the given data and generates an id number.
- deleteEvent(int id): Deletes the event from the database.

2.1.6. DiscussionBoard

DiscussionBoard
-Topic topics[]
+getTopics(): Topic[]

- getTopics(): Returns an array of topics held in the Discussion board.

Constructor?

2.1.7. Topic

Topics
int id string title string body Reply replies[]
+topic(string title, string body) +deleteTopic(int id) +getReplies(): string []

- topic(string title, string body) : Constructor. Creates a topic with the given data and generates a unique id number.
- getReplies(): Returns the Reply array as an array of strings.

deleteTopic?

2.1.8. Reply

Reply
int id
string body
+reply(string body)
+deleteReply()

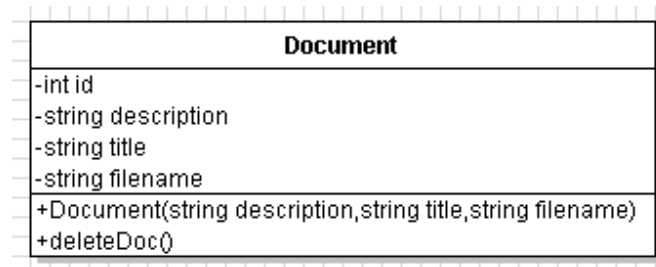
- ~~reply~~reply(string body) : Constructor. Creates a reply with the given data and generates a unique id number.
- deleteReply() : Deletes the reply from the database.

2.1.9. DocumentBoard

Document Board
Documents documents[]
+getDocList(): Document []
+getDoc(int id): Document

- getDocList() : Returns an array of Documents from the database.
- getDoc(int id) : Returns the Document with the specified id number from the database.

2.1.10. Document



- `Document(string description, string title, string filename)` : Constructor. Creates up a document with a title, filename, and description.
- `deleteDoc()` : Deletes the specified document from the database.

2.1.11. AdBoard

Ad board
Ad ads[]
+getAd(int id) : Ad
+getAdList() : Ad

- getAd(int id) : The getAd function returns the ad with the specified id number.
- getAdList() : The getAdList returns an array of Ads.

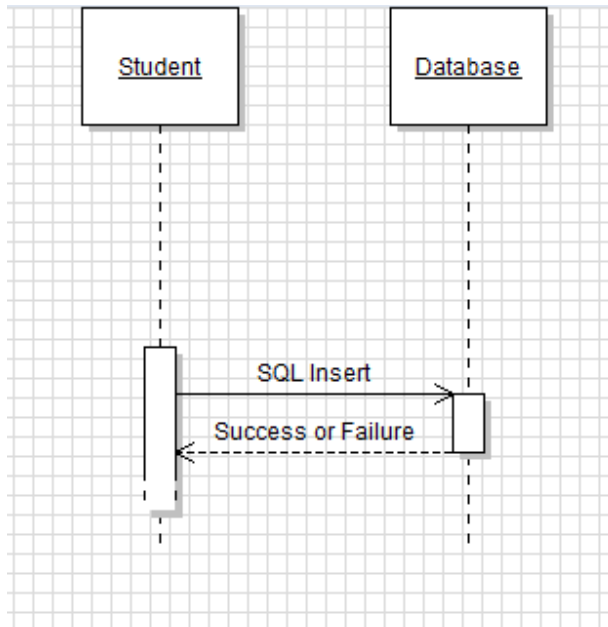
2.1.12. Ad

Ad
int id string title string itemType float price string description string contact
+Ad(string title,string itemtype,float price,string description,string contact) +deleteAd()

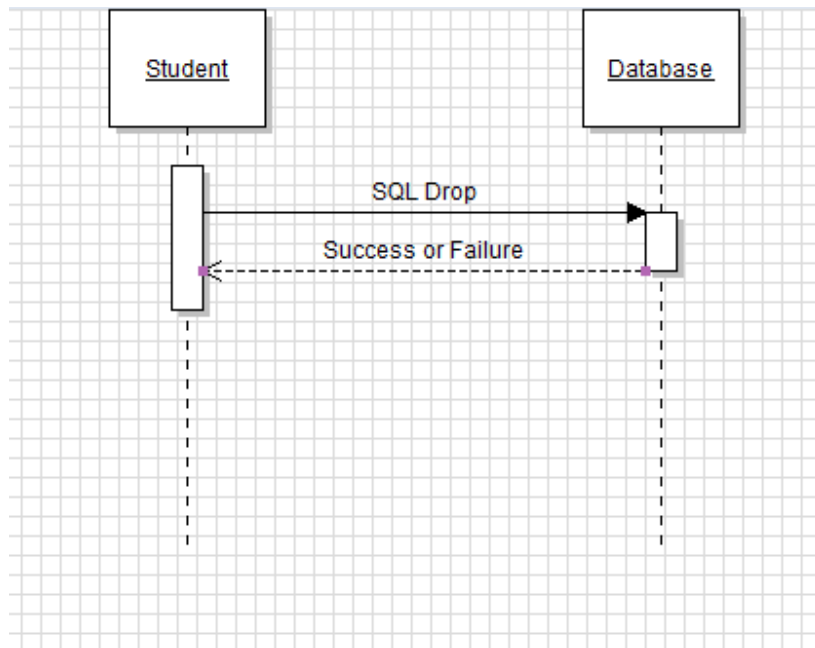
- Ad(string title, string itemtype, float price, string description, string contact) : Constructor. Creates a new ad in the database.
- deleteAd() : Deletes the ad from the database.

3. Sequence Diagrams

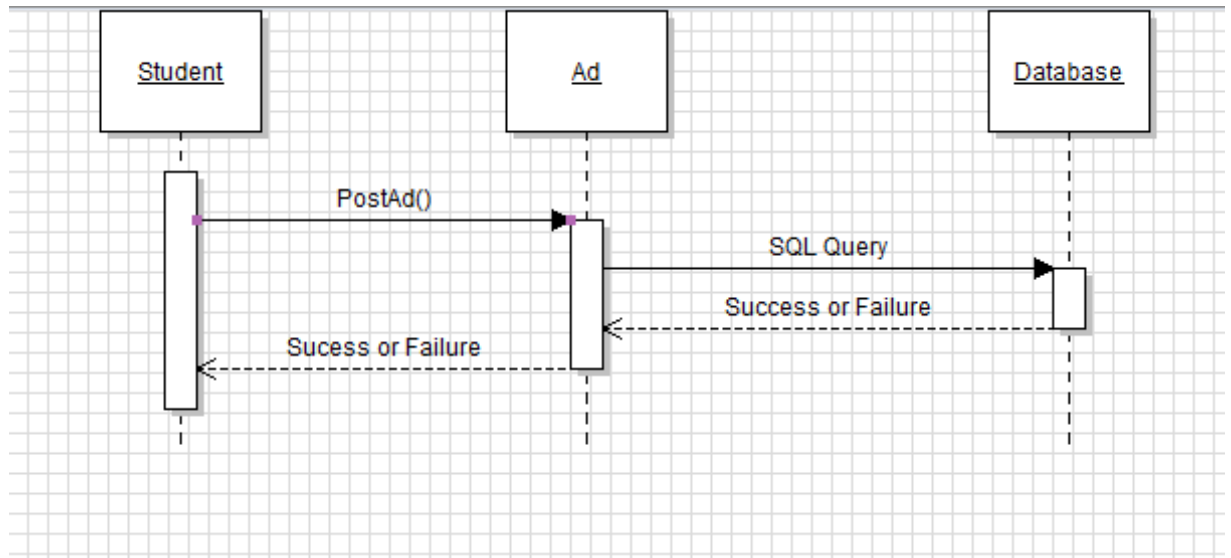
3.1. Add Course



3.2. Remove Course

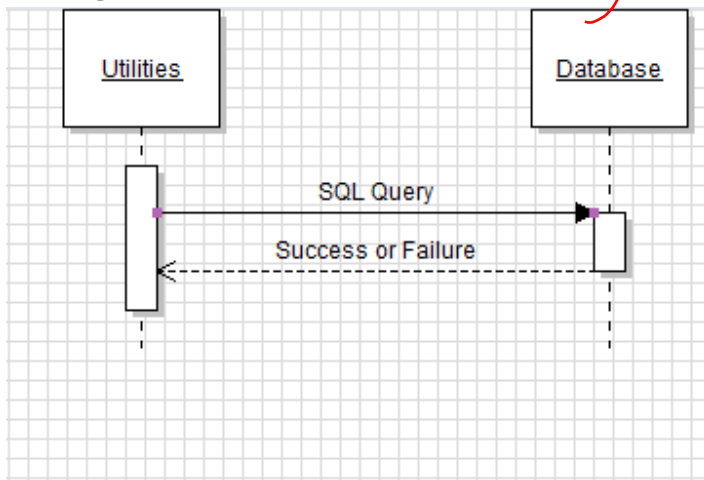


3.3. Post Ad



.Vo Login Diagrams

3.4. Login



Appendix A: Database Design

("*" = Primary Key, "#" = Foreign Key)

A.1 USER table

*NETID
#COURSENUMBER
NAME
YEAR
PASSWORD

A.2 COURSE table

*COURSENUMBER
NAME

A.3 DOCUMENT table

*DOCUMENTID
#COURSENUMBER
TITLE
FILENAME
FILE
DESCRIPTION

A.4 TOPIC table

*TOPICID
#COURSENUMBER
~~#REPLYID~~
TITLE
BODY

A.5 REPLY table

*REPLYID
BODY

A.6 AD table

*ADID
#COURSENUMBER
TITLE
TYPE
PRICE
DESCRIPTION
CONTACT

A.7 EVENT table

*EVINTID
#COURSENUMBER
DAY
MONTH
NAME
DESCRIPTION

FK

Use_Course

Appendix B: Initial Task and Role Assignments

- Presentation Assignments:
 - Requirements - Chris Freels
 - Design - Naveen Neelakandan
 - Final - Douglas Gorman

- Current Task Assignments:
 - Registration, Login/Logout, Document Board– Naveen Neelakandan
 - Advertisement Board, Web layout – Douglas Gorman
 - Calender, Discussion Board– ChrisFreels