Campus Online Question Bank System

The report II

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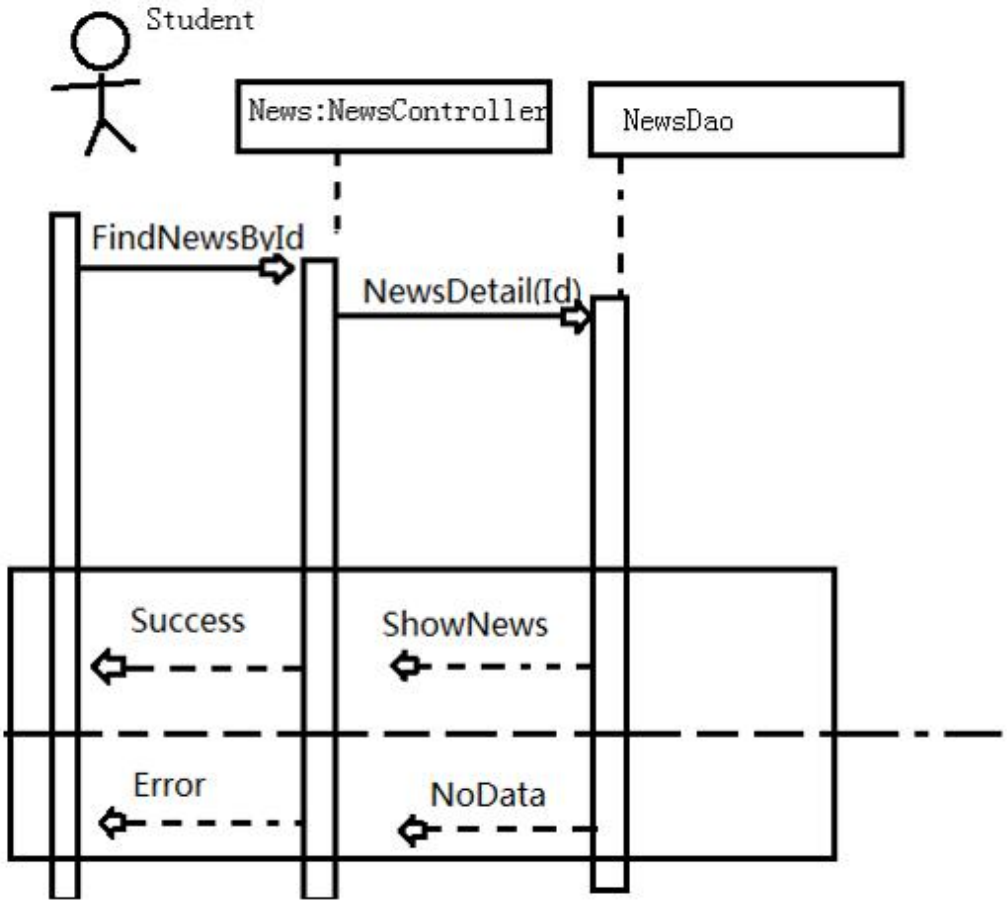
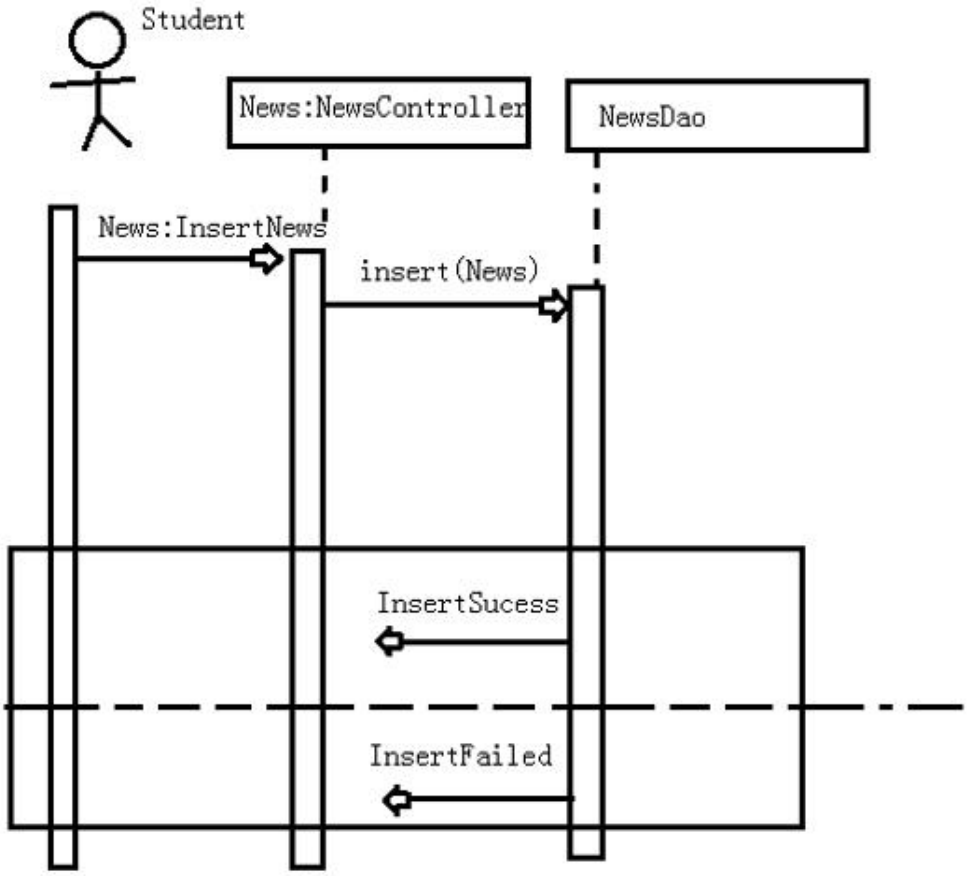
1. Interaction Diagrams

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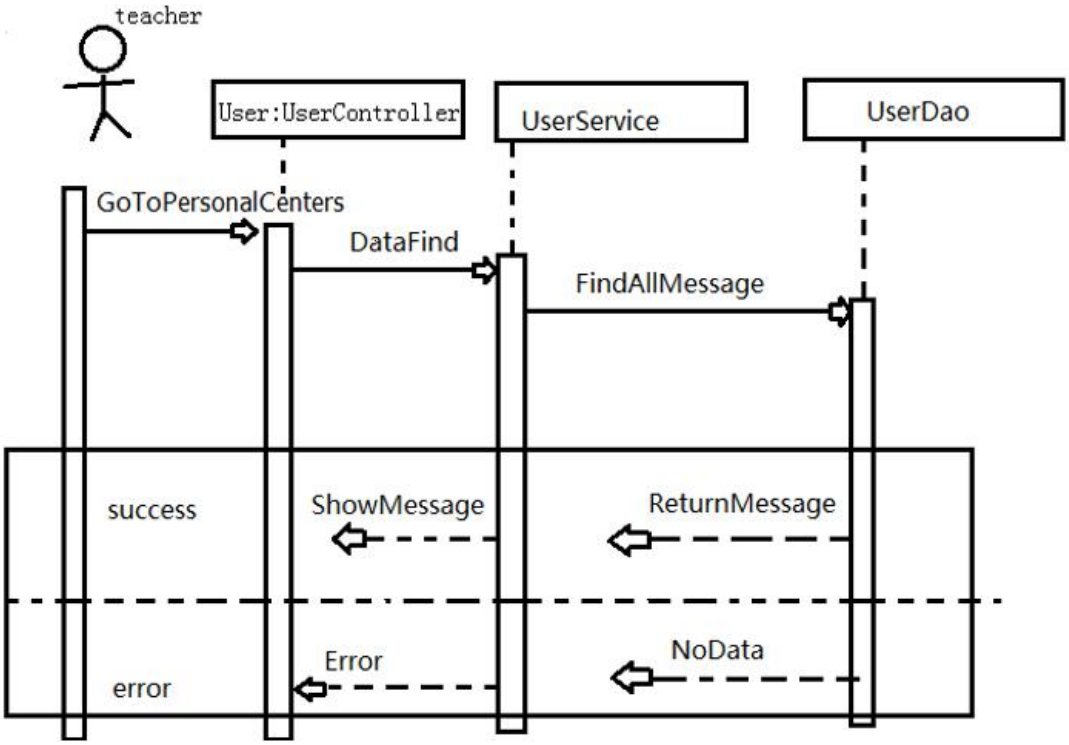
NewsDao
News:InsertNews
insert(News)
InsertSucess
InsertFailed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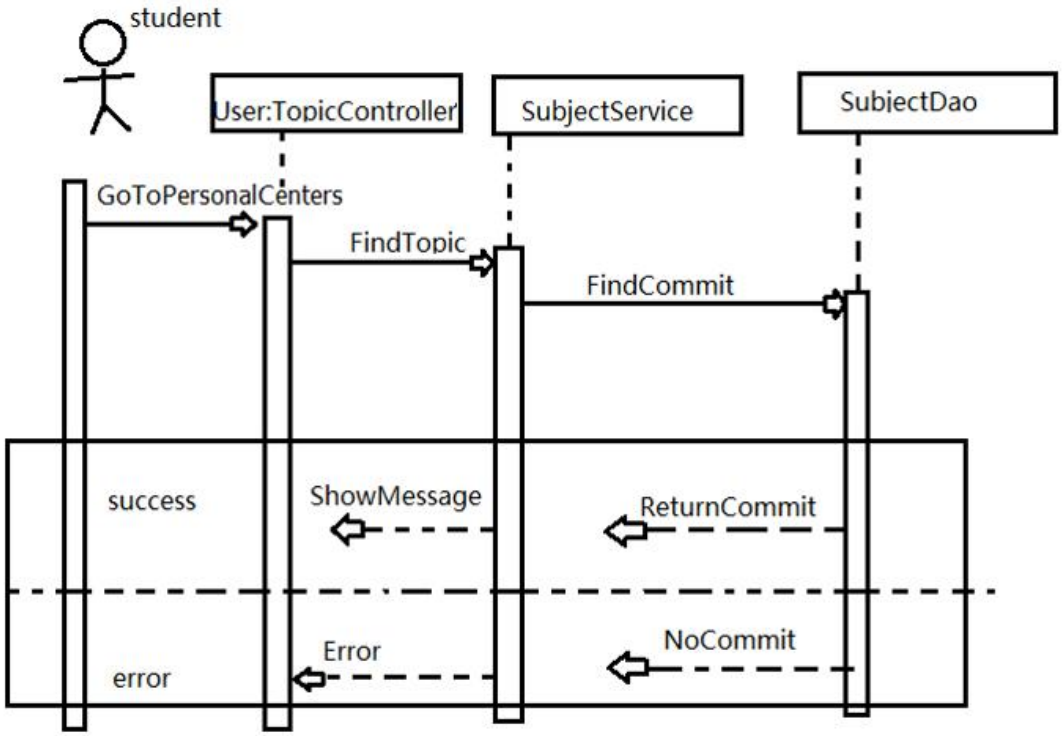
UserService
UserDao
GoToPersonalCenters
DataFind
FindAllMessage
success
ShowMessage
ReturnMessage
error
Error
NoData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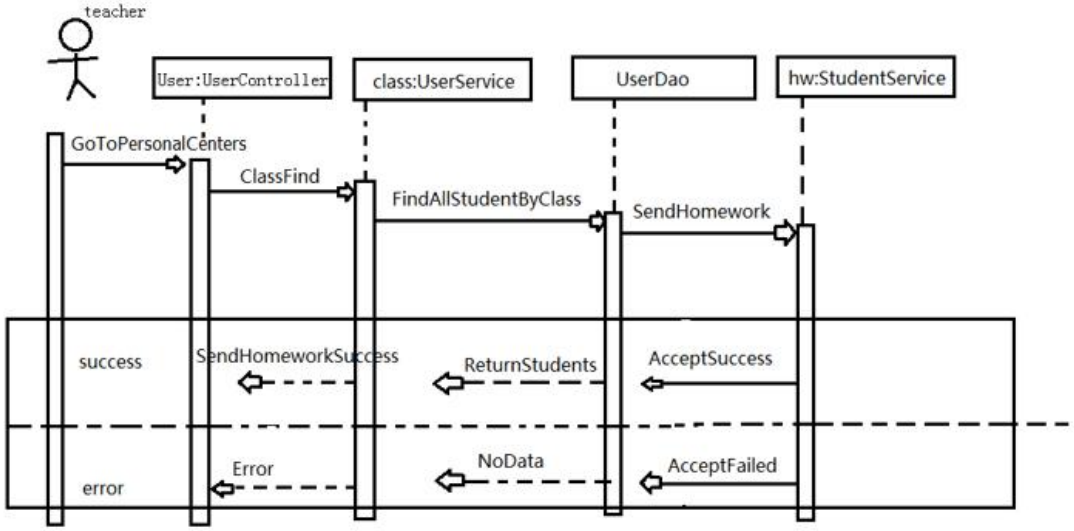
SubjectService
SubjectDao
GoToPersonalCenters
FindTopic
FindCommit
success
ShowMessage
ReturnCommit
error
Error
NoCommit


teacher
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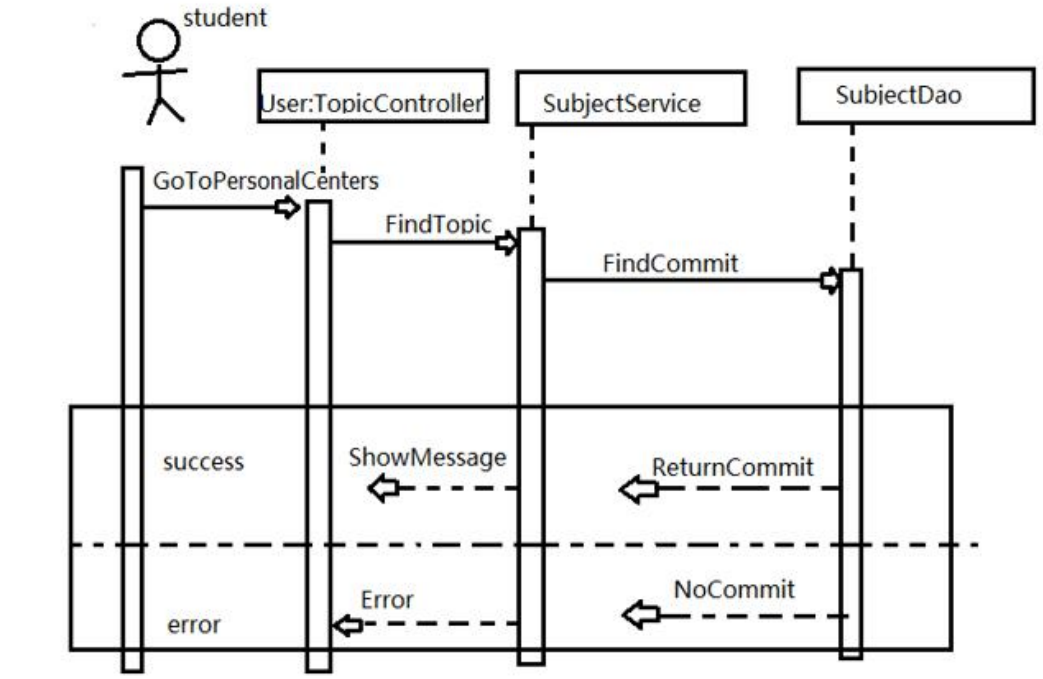
class:UserService
UserDao
hw:StudentService
GoToPersonalCenters
ClassFind
FindAllStudentByClass
SendHomework
success
SendHomeworkSuccess
ReturnStudents
AcceptSuccess
error
Error
NoData
AcceptFailed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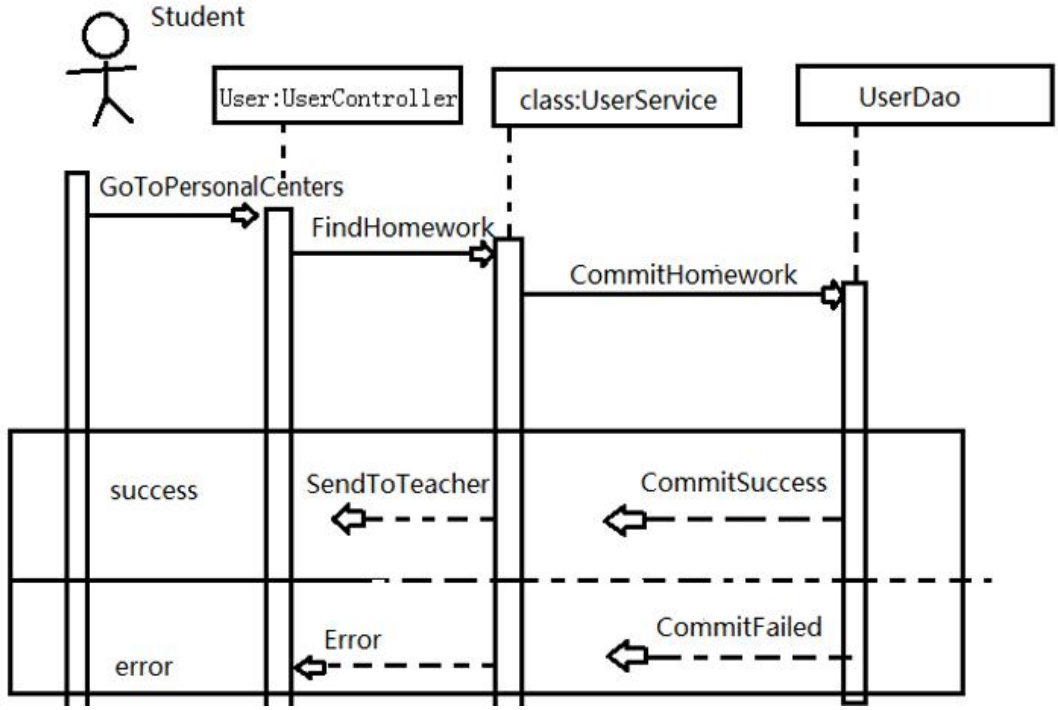
SubjectService
SubjectDao
GoToPersonalCenters
FindTopic
FindCommit
success
ShowMessage
ReturnCommit
error
Error
NoCommit


Student
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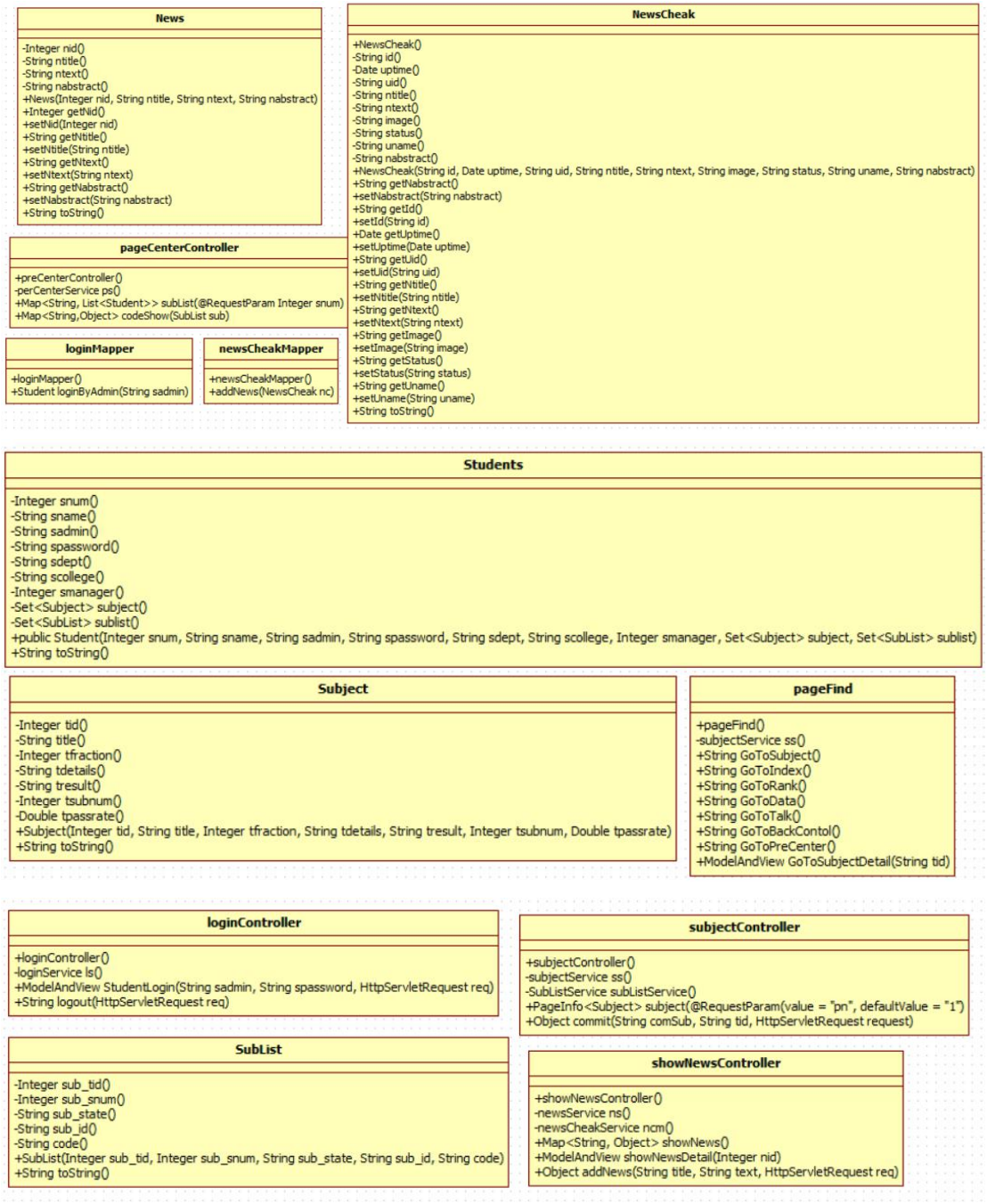
class:UserService
UserDao
GoToPersonalCenters
FindHomework
CommitHomework
success
SendToTeacher
CommitSuccess
error
Error
CommitFailed

2. Class Diagram and Interface Specification

a. Class Diagram



b. Data types and Operation Signatures

Data Types	Function
Int	The int data type is a 32-bit, signed integer in two's complement. Generally integer variables default to int type
Double	Double data type is double precision, 64 bit, IEEE 754 compliant floating point numberThe default type of floating point is double
Char	Char type is a single 16-bit Unicode characterChar data type can store any character
Boolean	Boolean data type represents one bit of information.There are only two values: true and false
Float	The float data type is a single-precision, 32-bit, IEEE 754-compliant floating point

	number.Float saves memory when storing large floating point arrays
Long	The long data type is a 64-bit, signed integer in two's complement. This type is mainly used on systems that require large integers.
short	The short data type is a 16-bit, signed integer in two's complement. The Short data type can also save space like a byte. A short variable is one-half of the space occupied by an int variable
Byte	The byte data type is an 8-bit, signed integer in two's complement.The byte type is used to save space in large arrays, mainly replacing integers,

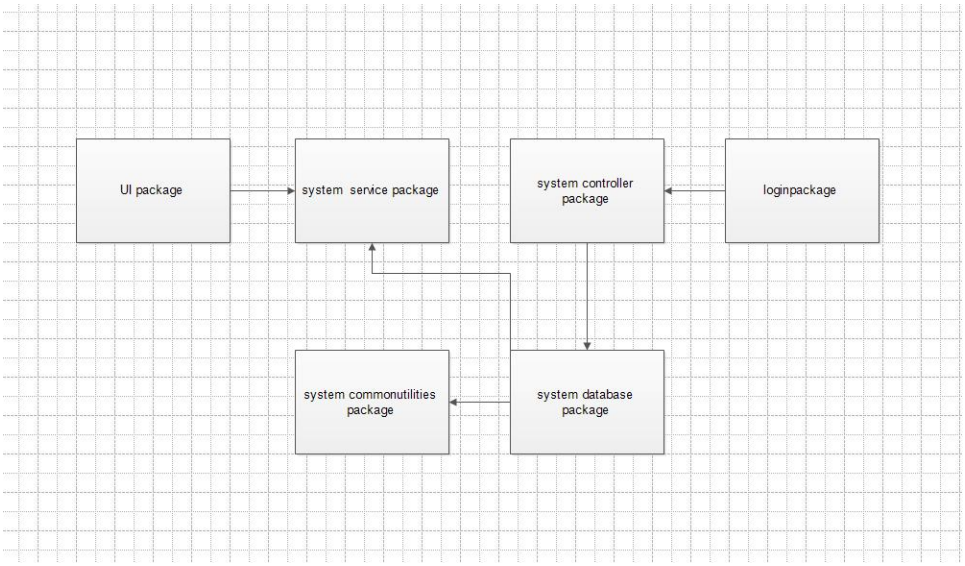
	because byte variables take up only a quarter of the int type.

3. System Architecture and System Design

a. Architectural Styles

Because the class driver architecture - architecture style mainly depends on the class manipulation data call, feedback and data changes in the database, because our system is an interactive system, mainly users search for problems, database feedback, and call database data , so the system must be able to respond to user actions in a timely manner and provide timely feedback.

b．Dentifying Subsystems



The user can log in through the UI, request data from the server through the operation UI, such as searching for the keyword of the question, and then the database provides data through the server, and the solution related to the problem is fed back to the user. The user must log in before requesting data from the database, so the database will give the user access to the database.

c. Mapping Subsystems to Hardware

Yes, as a system that needs to interact with the user, our system UI an d server will certainly not run on only one computer. In the end, our s ystem will have many users, so the UI runs on the user's computer thr ough the user's operation. Request data from a remote server. The dat abase and system controllers run on a computer that contains the ser

ver. And this computer containing the server is used to respond to dat a requests from the user's client.

d．Persistent Data Storage

Our online question bank requires students to have an account to save the questions they have queried in order to facilitate the students to review.

So our system need to run on multiple computers. We may have a client and a server subsystems, running on different machines. The account data of the students and teachers will be uploaded to our server, so that we can save the user's data for a long time.

e. Network Protocol

The three parts of the JDBC URL: 1) jdbc protocol: The protocol in the JDBC URL is always jdbc. 2) <sub-protocol>: The name of the driver n ame or database connection mechanism. A typical example of a sub-p rotocol name is "odbc", which is reserved specifically for URLs that sp ecify ODBC-style data resource names. For example, to access a datab ase through the JDBC-ODBC bridge, you can use the URL shown belo w: jdbc:odbc:book.

(3) <sub-name>: A method of identifying a database. Subnames can v ary depending on different sub-protocols. It can also have a subname

of the subname (with any internal syntax chosen by the driver progra mmer). The purpose of using subnames is to provide enough informa tion for the location database. For example, if the database is accesse d over the Internet, the network address should be included as part o f the subname in the JDBC URL and must follow the standard URL na ming convention shown below: hostname: port/child protocol.

f. Global Control Flow

Execution orderness: Our system is implemented in a linear way. Every student has to run through the same process when doing a problem.

Time dependency: Our system is event response type.

g. Hardware Requirements :

Operating System: Windows 7, Vista, XP

Processor: 1.7 Ghz

Memory: 512 MB RAM

Graphics: DirectX 8.1 level Graphics Card (require support for SSE)

Storage space: 500 MB of available space is required

URL: https://github.com/orgs/software-engineer707/projects/1