**[네트워크 2차 발표]**

**1. Data : Object – 서버와 클라이언트가 message 이벤트로 주고 받을 데이터**

**![스크린샷이(가) 표시된 사진

자동 생성된 설명](data:image/jpeg;base64,/9j/4AAQSkZJRgABAQEAeAB4AAD/4RDcRXhpZgAATU0AKgAAAAgABAE7AAIAAAAKAAAISodpAAQAAAABAAAIVJydAAEAAAAIAAAQzOocAAcAAAgMAAAAPgAAAAAc6gAAAAgAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAOydtOyYpe2drAAABZADAAIAAAAUAAAQopAEAAIAAAAUAAAQtpKRAAIAAAADODgAAJKSAAIAAAADODgAAOocAAcAAAgMAAAIlgAAAAAc6gAAAAgAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA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name : 채팅 참여자 이름

get userNamea

message : 보내고자 하는 채팅 내용

date : 채팅 보낸 시간 & 날짜

(사용자이름, 채팅내용, 시간)

**2. Socket : Object – 클라이언트 소켓 객체**

![스크린샷이(가) 표시된 사진

자동 생성된 설명](data:image/jpeg;base64,/9j/4AAQSkZJRgABAQEAeAB4AAD/4RDcRXhpZgAATU0AKgAAAAgABAE7AAIAAAAKAAAISodpAAQAAAABAAAIVJydAAEAAAAIAAAQzOocAAcAAAgMAAAAPgAAAAAc6gAAAAgAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAOydtOyYpe2drAAABZADAAIAAAAUAAAQopAEAAIAAAAUAAAQtpKRAAIAAAADMTYAAJKSAAIAAAADMTYAAOocAAcAAAgMAAAIlgAAAAAc6gAAAAgAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA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LsZxNpF6ljbpLDLGt1LIsYjG5kAGZJNuBnC4bowNbceqXlp4gtNM1U27C8tS8M0KFA0yY81cFjwQQy+wbOcZo8/62uI2qKKKBhRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQBR1v/AJF/UP8Ar1l/9ANZ3gL/AJJv4a/7BNr/AOiVrR1v/kX9Q/69Zf8A0A1neAv+Sb+Gv+wTa/8AolaAN+iiigDkvir/AMkp8Rf9eT1oeL9KutV0ONdPRJbm1u7e8jhkbasxilWTZnsTtwCeAcE1n/FX/klPiL/ryeuto63QdLHmesaP4i8R33iK9/4R+awS80q1tbWK4uIDLI6TyO27Y7KvDDHzHjHfIFi90XWYfFss/hzTNW0mea9Ekt3DqUUunXMZKF2kgkYsrlVI/dxg7v48EmvRKKSVmn/W9werbfl+CscdoEet+HWm0ZNCmvI5NRnuE1IXMSQCKaZpTuBbzd6hyuBGQSB8wBJGVFomvnRdP8KPoxSG01KK4fVzPEYGhjuPPBVd3m+a2ApBQAMWO4gDPo1FUnZp9UD1v5/qcBL4Y1U+CdSsEsx9quPEJvUTzE+aH7esu/Ocf6sZwee2M8VJe+GtUl8I+LLOK0BudR1J57ZPMQeYhMeDnOB909cHiu7oqFG33W/L/JBP39+7f33/AMzy698HXa6jrdpe6FrOtw6ndyTQzW3iGS0s/LlxmOaMTKV28glInyuDycit+3g1nw1rmtfYNBm1WHVbmO5t5ormKOOAiGOIpKXYOFBjByiucE8ZGD2VFVH3UkvT5af5A9Xc821fTNQ01vEF5eWbrZrrVnrQuldCjRRrAsq4zvDKInblQCMYPp0OtKdR8d+GoLYlvsJnv5nU8KhiaJQf95pCR6+WfSunZQylWAIIwQR1qG2sLOy/487WC3+RI/3UYX5VGFXjsATgdqabtb+trfohNXd/6/rVk9FFFIYUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAUdb/AORf1D/r1l/9ANZ3gL/km/hr/sE2v/ola0db/wCRf1D/AK9Zf/QDWd4C/wCSb+Gv+wTa/wDolaAN+iiigDkvir/ySnxF/wBeT11tcl8Vf+SU+Iv+vJ662gAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAo63/AMi/qH/XrL/6AazvAX/JN/DX/YJtf/RK1o63/wAi/qH/AF6y/wDoBrO8Bf8AJN/DX/YJtf8A0StAG/RRRQByXxV/5JT4i/68nrra5L4q/wDJKfEX/Xk9dbQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAUdb/wCRf1D/AK9Zf/QDWd4C/wCSb+Gv+wTa/wDola0db/5F/UP+vWX/ANANZ3gL/km/hr/sE2v/AKJWgDfooooA5L4q/wDJKfEX/Xk9dbWF420W68R+B9W0ewaJLm8tmiiaZiqBj6kAkD8DWf8AbPiJ/wBAPwz/AODi4/8AkagDraK5L7Z8RP8AoB+Gf/Bxcf8AyNR9s+In/QD8M/8Ag4uP/kagDraK5L7Z8RP+gH4Z/wDBxcf/ACNR9s+In/QD8M/+Di4/+RqAOtorkvtnxE/6Afhn/wAHFx/8jUfbPiJ/0A/DP/g4uP8A5GoA62iuS+2fET/oB+Gf/Bxcf/I1H2z4if8AQD8M/wDg4uP/AJGoA62iuS+2fET/AKAfhn/wcXH/AMjUfbPiJ/0A/DP/AIOLj/5GoA62iuS+2fET/oB+Gf8AwcXH/wAjUfbPiJ/0A/DP/g4uP/kagDraK5L7Z8RP+gH4Z/8ABxcf/I1H2z4if9APwz/4OLj/AORqAOtorkvtnxE/6Afhn/wcXH/yNR9s+In/AEA/DP8A4OLj/wCRqAOtorkvtnxE/wCgH4Z/8HFx/wDI1H2z4if9APwz/wCDi4/+RqAOtorkvtnxE/6Afhn/AMHFx/8AI1H2z4if9APwz/4OLj/5GoA62iuS+2fET/oB+Gf/AAcXH/yNR9s+In/QD8M/+Di4/wDkagDraK5L7Z8RP+gH4Z/8HFx/8jUfbPiJ/wBAPwz/AODi4/8AkagDraK5L7Z8RP8AoB+Gf/Bxcf8AyNR9s+In/QD8M/8Ag4uP/kagDf1v/kX9Q/69Zf8A0A1neAv+Sb+Gv+wTa/8Aolay7yT4h3ljPbPovhpVmjaMkavPkAjH/Pt71v8AhjTZtG8I6Rpd0yNPY2MNvI0ZJUskYUkEgHGR6UAalFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQB//9k=)

connect() : 서버 소켓에 연결

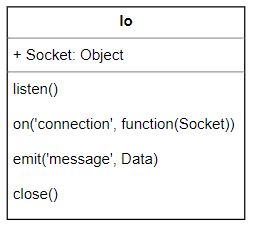
on(‘message’, function(Data))

* message : 사용자 정의 이벤트
* function(Data) : message 이벤트를 서버로부터 받았을 때, 화면에 Data의 내용(name, message, date)를 보여주는 함수

emit(‘message’, Data)

* message : 사용자 정의 이벤트, message 이벤트를 서버에 전달
* Data : message 이벤트를 서버에 전달할 때 함께 전달할 데이터

**3. Io : Object – 서버 소켓 객체**



Socket : 클라이언트 소켓 객체

listen() : 서버 소켓 실행

on(‘connection’, function(Socket))

* connection : 클라이언트가 연결할 때 발생하는 이벤트
* function(Socket) : 접속한 클라이언트의 정보를 가진 소켓 객체 생성

emit(‘message’, Data)

* message : 사용자 정의 이벤트, message 이벤트를 서버에 접속한 모든 클라이언트에게 전달
* Data : 한 클라이언트에게서 받은 데이터(name, message, date)를 이벤트를 발생시킨 클라이언트를 포함한 모든 클라이언트에게 전달

close() : 서버 종료

**[기본 환경 설정 & Tool]**

Eclipse Runtime Target: Web Apache Tomcat

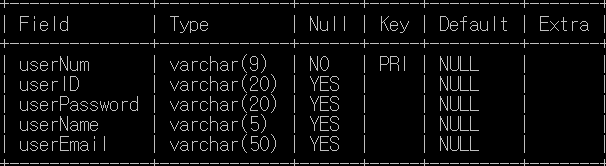
DB: Mysql

JSP-DB 연동 :mysql jdbc driver

Web Framework: Bootstrap

**[유저관리 DB]**

<User Table>



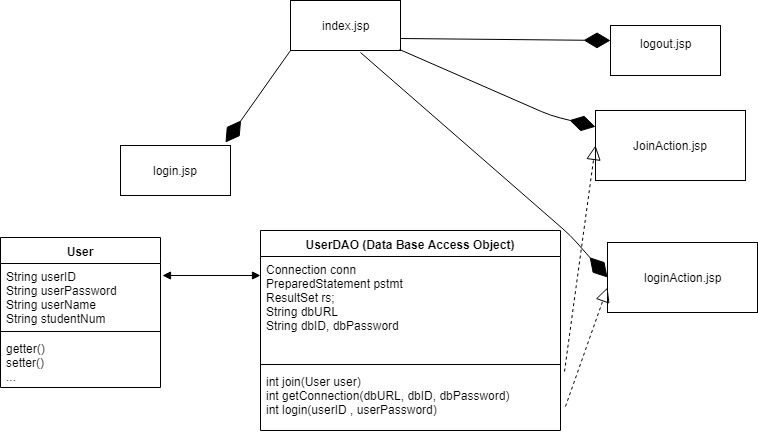
기본 멤버 필드(속성)값은

학번, 아이디, 비밀번호, 학생명, 학생 이메일주소를 의미한다.

서버단 DB에는 모든 학번(userNum)이 사전 입력되어있고

학번이 등록되지 않은 사람은 회원가입할 수 없다.

**<기본 클래스, 메소드 설계도>**



① User

DB의 UserTable과 동일하게 아이디, 비빌번호, 학생명, 학번을 멤버 변수로 가지고

이에 대한 getter, setter 메소드로 구성된다.

② UserDAO

User Data Base Access Object의 약자로서

User가 회원가입 기능을 수행할 때 DB에 유저 정보를 등록하고

로그인 기능을 수행할 때 DB에 등록된 유저 정보와 대조하는 역할을 한다.

성공적으로 회원가입, 로그인이 완료될 경우

.index (메인 화면)으로 이동한다.

-Connection conn : DB Access Object

-PreparedStatement pstmt : 정해진 SQL문을 이용해서 상태정보(ID를 가져온다.

-ResultSet rs: 데이터베이스에 접근한 결과를 저장하는 객체

- dbURL: Mysql 서버 주소

- dbID, dbPassword: 데이터베이스에 저장된 ID, 패스워드와 비교할 값

- int getConnection(dbURL, dbID, dbPassword)

mysql driver와 연결하여 DB에 실제적으로 접근할 수 있도록 하는 메소드

- int join(User user)

회원가입을 수행할 메소드로 SQL 쿼리문을 통해 DB에 유저 정보를 저장한다.

로그인 수행결과에 따라 리턴 값을 반환한다

★ 이때, DB에 사전등록되지 않은 학번의 유저는 가입할 수 없다. (학번 Check Box 활용)

- int login(userID, userPassword)

로그인 기능을 수행할 메소드로 SQL 쿼리문을 통해 DB에 등록된 유저 정보와 대조한다.

로그인 수행결과에 따라 리턴 값을 반환한다

ex) return 값 -> 1: 로그인 성공/ 0: 비밀번호 불일치 / -1: ID가 존재하지 않음.

-2: 데이터베이스 오류

※ join, login 메소드는 loginAction.jsp를 거쳐 수행된다.

logoutAction: 세션을 종료시켜 로그인된 유저를 로그아웃 시킨다.

Java 클래스 정보

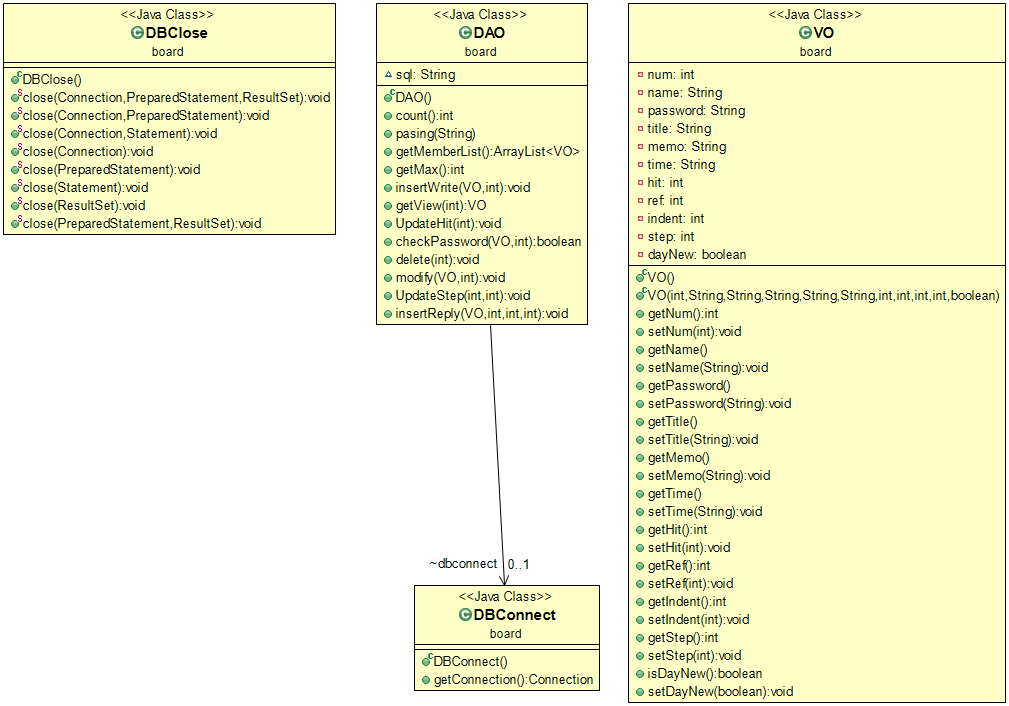
jsp에 DB, 변수 접근을 넣지않고 java를 이용해 기능을 분리/관리

DBConnect.java 데이터베이스 연결

DBClose.java 데이터베이스를 닫음

DAO.java SQL문 종합

VO.java 변수접근



jsp 정보

|  |  |
| --- | --- |
| jsp | 내용 |
| list.jsp | 게시판 목록  지정 개수만큼 게시물을 출력, 페이지 단위로 이동  글 번호, 제목, 작성자, 작성일, 조회수 출력  최근 작성글엔 [new] 표기  답글 들여쓰기 및 [Re] 표기 |
| view.jsp | List에서 제목 클릭 시 게시글 내용 로드  게시글 조회수 증가 처리  글쓰기, 답변작성, 글 삭제, 목록 돌아가기, 글 수정 기능 |
| write.jsp | 게시글 작성 (작성자, 비밀번호, 제목, 내용)  성공적으로 작성되면 게시판 목록으로 돌아감 |
| delete.jsp | View에서 글 삭제 버튼 클릭 시 호출. 비밀번호 입력 팝업  비밀번호 입력 후 삭제 버튼 클릭.  맞다면 게시글 삭제, 틀리면 재입력 팝업 |
| modify.jsp | View에서 글 수정 버튼 클릭 시 호출. (작성자명은 수정 불가)  내용 수정 후 비밀번호를 입력 후 수정 버튼을 클릭.  맞다면 게시글 수정, 틀리면 다시 View로 |
| reply.jsp | View에서 답변달기 클릭 시 호출.  원글의 제목이 자동으로 입력됨. |

reference: [https://seinarin.tistory.com/category/Programming/JSP - 게시판만들기](https://seinarin.tistory.com/category/Programming/JSP%20-%20게시판만들기)

login.jsp

Login.jsp 해야만 index.jsp에 접근가능