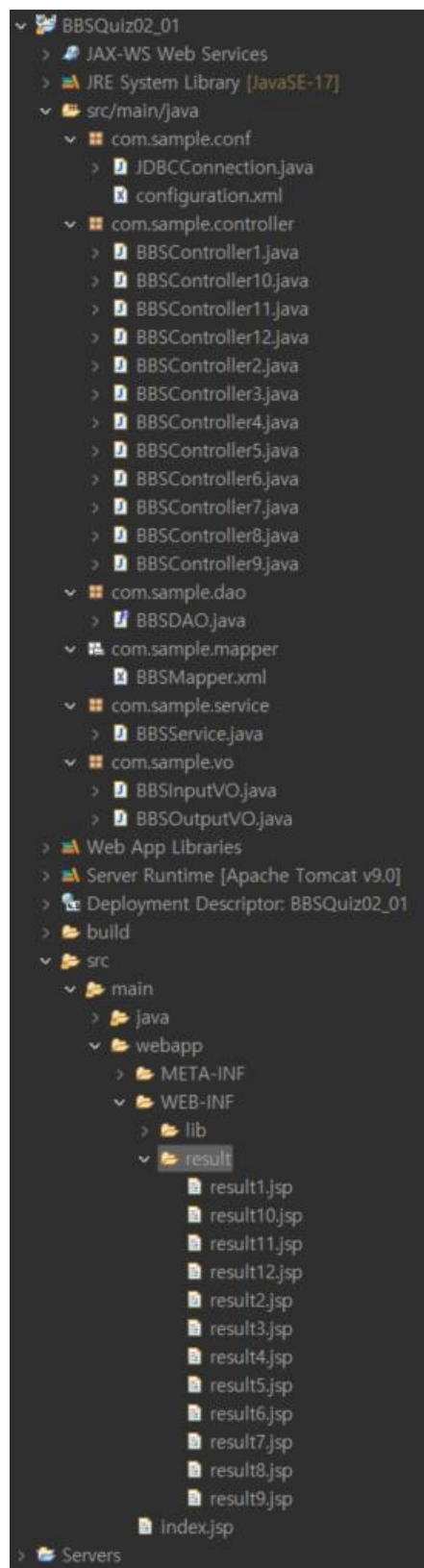


정답

<프로젝트 구성>



```

<body>
  <h1>시작페이지</h1>

  <hr />
  <h2>첫번째 bbs</h2>
  <a href="{pageContext.request.contextPath}/BBSController1">이동</a>
  <hr />
  <h2>두번째 bbs</h2>
  <a href="{pageContext.request.contextPath}/BBSController2">이동</a>
  <hr />
  <h2>세번째 bbs</h2>
  <a href="{pageContext.request.contextPath}/BBSController3">이동</a>
  <hr />
  <h2>네번째 bbs</h2>
  <a href="{pageContext.request.contextPath}/BBSController4">이동</a>
  <hr />
  <h2>다섯번째 bbs</h2>
  <a href="{pageContext.request.contextPath}/BBSController5">이동</a>
  <hr />
  <h2>여섯번째 bbs</h2>
  <a href="{pageContext.request.contextPath}/BBSController6">이동</a>
  <hr />
  <h2>일곱번째 bbs</h2>
  <a href="{pageContext.request.contextPath}/BBSController7">이동</a>
  <hr />
  <h2>여덟번째 bbs</h2>
  <a href="{pageContext.request.contextPath}/BBSController8">이동</a>
  <hr />
  <h2>아홉번째 bbs</h2>
  <a href="{pageContext.request.contextPath}/BBSController9">이동</a>
  <hr />
  <h2>열번째 bbs</h2>
  <a href="{pageContext.request.contextPath}/BBSController10">이동</a>
  <hr />
  <h2>열한번째 bbs</h2>
  <a href="{pageContext.request.contextPath}/BBSController11">이동</a>
  <hr />
  <h2>열두번째 bbs</h2>
  <a href="{pageContext.request.contextPath}/BBSController12">이동</a>
</body>

```

Configuration.xml

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE configuration
  PUBLIC "-//mybatis.org//DTD Config 3.0//EN"
  "http://mybatis.org/dtd/mybatis-3-config.dtd">
<configuration>
  <settings>
    <setting name="cacheEnabled" value="false" />
    <setting name="useGeneratedKeys" value="true" />
    <setting name="defaultExecutorType" value="REUSE" />
    <setting name="mapUnderscoreToCamelCase" value="true"/>
  </settings>

  <typeAliases>
    <package name="com.sample.vo" />
  </typeAliases>

  <environments default="development">
    <environment id="development">
      <transactionManager type="JDBC" />
      <dataSource type="POOLED">
        <property name="driver" value="org.mariadb.jdbc.Driver" />
        <property name="url" value="jdbc:mariadb://localhost:3306/bbs2" />
        <property name="username" value="root" />
        <property name="password" value="1234" />
      </dataSource>
    </environment>
  </environments>

  <mappers>
    <mapper resource="com/sample/mapper/BBSMapper.xml" />
  </mappers>
</configuration>
```

JDBCConnection.java

```
public class JDBCConnection {
    public static SqlSessionFactory sqlSession;

    static {
        String resource = "com/sample/conf/configuration.xml";
        Reader reader;

        try {
            reader = Resources.getResourceAsReader( resource );
            sqlSession = new SqlSessionFactoryBuilder().build( reader );
        } catch (IOException e) {
            e.printStackTrace();
        }
    }

    public static SqlSessionFactory getSqlSession() {
        return sqlSession;
    }
}
```

BBSDAO.java

```
public interface BBSDAO {  
    public List<BBSOutputVO> selectBBSList1();  
    public List<BBSOutputVO> selectBBSList2(BBSInputVO vo);  
    public List<BBSOutputVO> selectBBSList3(BBSInputVO vo);  
    public List<BBSOutputVO> selectBBSList4(BBSInputVO vo);  
    public List<BBSOutputVO> selectBBSList5(BBSInputVO vo);  
    public List<String> selectAllCategoryList();  
    public List<BBSOutputVO> selectBBSList6(BBSInputVO vo);  
    public List<BBSOutputVO> selectBBSList7(BBSInputVO vo);  
    public List<BBSOutputVO> selectBBSList8(BBSInputVO vo);  
}
```

BBSInputVO.java(Getter Setter 생략)

```
public class BBSInputVO {  
    private int id;  
    private String category;  
    private String title;  
    private String owner;  
    private String content;  
    private String createDate;  
    private List<String> months;  
    private String startMonth;  
    private String endMonth;  
    private String month;  
}
```

BBSOutputVO.java(Getter Setter 생략)

```
public class BBSOutputVO {  
    private int id;  
    private String category;  
    private String title;  
    private String owner;  
    private String content;  
    private String createDate;  
}
```


BBSMapper.xml

```

<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE mapper
  PUBLIC "-//mybatis.org//DTD Mapper 3.0//EN"
  "http://mybatis.org/dtd/mybatis-3-mapper.dtd">

<mapper namespace="com.sample.dao.BBSDAO">
  <select id="selectBBSList1" resultType="BBSOutputVO">
    select id, category, title, owner, content,
    date_format(create_date, '%Y-%m-%d %T') create_date
    from bbs
  </select>
  <select id="selectBBSList2" parameterType="BBSInputVO" resultType="BBSOutputVO">
    select id, category, title, owner, content,
    date_format(create_date, '%Y-%m-%d %T') create_date
    from bbs
    where category = #{category}
  </select>
  <select id="selectBBSList3" parameterType="BBSInputVO" resultType="BBSOutputVO">
    select id, category, title, owner, content,
    date_format(create_date, '%Y-%m-%d %T') create_date
    from bbs
    where category = #{category}
  </select>
  <select id="selectBBSList4" parameterType="BBSInputVO" resultType="BBSOutputVO">
    select id, category, title, owner, content,
    date_format(create_date, '%Y-%m-%d %T') create_date
    from bbs
    where category = #{category}
  </select>
  <select id="selectAllCategoryList" resultType="String">
    select distinct category from bbs
  </select>
  <select id="selectBBSList5" parameterType="BBSInputVO" resultType="BBSOutputVO">
    select id, category, title, owner, content,
    date_format(create_date, '%Y-%m-%d %T') create_date
    from bbs
    where date_format(create_date, '%m') in
    <foreach collection="months" item="mon" open="(" close=")" separator=",">
      #{mon}
    </foreach>
  </select>
  <select id="selectBBSList6" parameterType="BBSInputVO" resultType="BBSOutputVO">
    select id, category, title, owner, content,
    date_format(create_date, '%Y-%m-%d %T') create_date
    from bbs
    where date_format(create_date, '%m') between #{startMonth} and #{endMonth}
  </select>
  <select id="selectBBSList7" parameterType="BBSInputVO" resultType="BBSOutputVO">
    select id, category, title, owner, content,
    date_format(create_date, '%Y-%m-%d %T') create_date
    from bbs
    where date_format(create_date, '%m') = #{month}
  </select>
  <select id="selectBBSList8" parameterType="BBSInputVO" resultType="BBSOutputVO">
    select id, category, title, owner, content,
    date_format(create_date, '%Y-%m-%d %T') create_date
    from bbs
    <where>
      <if test="owner != null">
        and owner = #{owner}
      </if>
      <if test="title != null">
        and title like #{title}
      </if>
      <if test="content != null">
        and content like #{content}
      </if>
    </where>
  </select>
</mapper>

```

(1) 정답

Result1.jsp

```
*<style>
.container {
    display: grid;
    grid-template-columns: 200px 1fr 200px;
    grid-template-rows: 50px 100px 50px 1fr 200px;
    gap: 0px 0px;
    grid-auto-flow: row;
    grid-template-areas: ". . ." ". pannel ." ". . ." ". main ." ". . .";
}

main {
    grid-area: main;
}

table {
    font-family: Arial, Helvetica, sans-serif;
    border-collapse: collapse;
    width: 100%;
}

table td, table th {
    border: 1px solid #ddd;
    padding: 8px;
}

table tr:nth-child(even) {
    background-color: #f2f2f2;
}

table tr:hover {
    background-color: #ddd;
}

table th {
    padding-top: 12px;
    padding-bottom: 12px;
    text-align: left;
    background-color: #0335fc;
    color: white;
}
</style>
</head>
<body>
    <div class="container">
        <main>
            <table>
                <thead>
                    <tr>
                        <th>id</th>
                        <th>카테고리</th>
                        <th>제목</th>
                        <th>글쓴이</th>
                        <th>작성일/작성시간</th>
                    </tr>
                </thead>
                <tbody>
                    <c:forEach var="vo" items="${list}">
                        <tr>
                            <td>${vo.id}</td>
                            <td>${vo.category}</td>
                            <td>${vo.title}</td>
                            <td>${vo.owner}</td>
                            <td>${vo.createDate}</td>
                        </tr>
                    </c:forEach>
                </tbody>
            </table>
        </main>
    </div>
</body>
```

BBSController1.java

```
protected void doGet(HttpServletRequest request, HttpServletResponse response)
    request.setCharacterEncoding("utf-8");

    BBSService service = new BBSService();
    service.getBBSList1(request);

    RequestDispatcher rdp =
        request.getRequestDispatcher("/WEB-INF/result/result1.jsp");
    rdp.forward(request, response);
}
```

BBSService.java

```
SqlSessionFactory sqlSessionFactory = JDBCConnection.getSqlSession();
SqlSession sqlSession = sqlSessionFactory.openSession();
BBSDAO dao = sqlSession.getMapper(BBSDAO.class);

public void getBBSList1(HttpServletRequest request) {
    request.setAttribute("list", dao.selectBBSList1());
}
```

(2) 정답

Result2.jsp

```

* {
  box-sizing : border-box;
}

.container {
  display: grid;
  grid-template-columns: 200px 1fr 200px;
  grid-template-rows: 50px 100px 50px 1fr 200px;
  gap: 0px 0px;
  grid-auto-flow: row;
  grid-template-areas: ". . ." ". header ." ". . ." ". main ." ". . .";
}

header {
  grid-area : header;
  border : 1px solid black;
  padding : 20px;
}

main {
  grid-area: main;
}

table {
  font-family: Arial, Helvetica, sans-serif;
  border-collapse: collapse;
  width: 100%;
}

table td, table th {
  border: 1px solid #ddd;
  padding: 8px;
}

table tr:nth-child(even) {
  background-color: #f2f2f2;
}

table tr:hover {
  background-color: #ddd;
}

table th {
  padding-top: 12px;
  padding-bottom: 12px;
  text-align: left;
  background-color: #0335fc;
  color: white;
}

```



```

<div class="container">
  <header>
    <a href="{pageContext.request.contextPath}/BBSController2?category=고민">고민</a>
    <a href="{pageContext.request.contextPath}/BBSController2?category=공유">공유</a>
    <a href="{pageContext.request.contextPath}/BBSController2?category=공지">공지</a>
    <a href="{pageContext.request.contextPath}/BBSController2?category=잡담">잡담</a>
  </header>
  <main>
    <table>
      <thead>
        <tr>
          <th>id</th>
          <th>카테고리</th>
          <th>제목</th>
          <th>글쓴이</th>
          <th>작성일/작성시간</th>
        </tr>
      </thead>
      <tbody>
        <c:forEach var="vo" items="{list}">
          <tr>
            <td>${vo.id}</td>
            <td>${vo.category}</td>
            <td>${vo.title}</td>
            <td>${vo.owner}</td>
            <td>${vo.createDate}</td>
          </tr>
        </c:forEach>
      </tbody>
    </table>
  </main>
</div>

```

BBSController2.java

```

protected void doGet(HttpServletRequest request, HttpServletResponse response) {
    request.setCharacterEncoding("utf-8");

    BBSservice service = new BBSservice();
    service.getBBSList2(request);

    RequestDispatcher rdp =
        request.getRequestDispatcher("/WEB-INF/result/result2.jsp");
    rdp.forward(request, response);
}

```

BBSservice.java

```

public void getBBSList2(HttpServletRequest request) {
    if (request.getParameter("category") != null) {
        BBSInputVO vo = new BBSInputVO();
        vo.setCategory(request.getParameter("category"));
        request.setAttribute("list", dao.selectBBSList2(vo));
    } else {
        getBBSList1(request);
    }
}

```

(3) 정답

Result3.jsp

```
* {
    box-sizing : border-box;
}

.container {
    display: grid;
    grid-template-columns: 200px 1fr 200px;
    grid-template-rows: 50px 100px 50px 1fr 200px;
    gap: 0px 0px;
    grid-auto-flow: row;
    grid-template-areas: ". . ." ". header ." ". . ." ". main ." ". . .";
}

header {
    grid-area : header;
    border : 1px solid black;
    display: grid;
    grid-template-columns: 30px 1fr 30px;
    grid-template-rows: 20px 1fr 20px;
    grid-auto-flow: row;
    grid-template-areas: ". . ." ". form ." ". . .";
}

form {
    display : grid;
    grid-area : form;
    grid-template-columns: 1fr 100px;
    grid-template-rows: 1fr;
    grid-auto-flow: row;
    gap : 20px;
    grid-template-areas: "category submit";
}

#category {
    grid-area : category;
    font-size : 20px;
}

#submit {
    grid-area : submit;
}

main {
    grid-area: main;
}

table {
    font-family: Arial, Helvetica, sans-serif;
    border-collapse: collapse;
    width: 100%;
}

table td, table th {
    border: 1px solid #ddd;
    padding: 8px;
}

table tr:nth-child(even) {
    background-color: #f2f2f2;
}

table tr:hover {
    background-color: #ddd;
}

table th {
    padding-top: 12px;
    padding-bottom: 12px;
    text-align: left;
    background-color: #0335fc;
    color: white;
}
```

```

<body>
  <div class="container">
    <header>
      <form action="${pageContext.request.contextPath}/BBSController3" method="post">
        <input type="text" name="category" id="category">
        <button id="submit">전송</button>
      </form>
    </header>
    <main>
      <table>
        <thead>
          <tr>
            <th>id</th>
            <th>카테고리</th>
            <th>제목</th>
            <th>글쓴이</th>
            <th>작성일/작성시간</th>
          </tr>
        </thead>
        <tbody>
          <c:forEach var="vo" items="${list}">
            <tr>
              <td>${vo.id}</td>
              <td>${vo.category}</td>
              <td>${vo.title}</td>
              <td>${vo.owner}</td>
              <td>${vo.createDate}</td>
            </tr>
          </c:forEach>
        </tbody>
      </table>
    </main>
  </div>
</body>

```

BBSController3.java

```

protected void doGet(HttpServletRequest request, HttpServletResponse response) {
    request.setCharacterEncoding("utf-8");

    BBSService service = new BBSService();
    service.getBBSList3(request);

    RequestDispatcher rdp =
        request.getRequestDispatcher("/WEB-INF/result/result3.jsp");
    rdp.forward(request, response);
}

```

BBSService.java

```

public void getBBSList3(HttpServletRequest request) {
    if (request.getParameter("category") != null) {
        BBSInputVO vo = new BBSInputVO();
        vo.setCategory(request.getParameter("category"));
        request.setAttribute("list", dao.selectBBSList3(vo));
    } else {
        getBBSList1(request);
    }
}

```

(4) 정답

Result4.jsp

```
* {
    box-sizing : border-box;
}

.container {
    display: grid;
    grid-template-columns: 200px 1fr 200px;
    grid-template-rows: 50px 100px 50px 1fr 200px;
    gap: 0px 0px;
    grid-auto-flow: row;
    grid-template-areas: ". . ." ". header ." ". . ." ". main ." ". . .";
}

header {
    grid-area : header;
    border : 1px solid black;
    display: grid;
    grid-template-columns: 30px 1fr 30px;
    grid-template-rows: 20px 1fr 20px;
    grid-auto-flow: row;
    grid-template-areas: ". . ." ". form ." ". . .";
}

form {
    display : grid;
    grid-area : form;
    grid-template-columns: 1fr 100px;
    grid-template-rows: 1fr;
    grid-auto-flow: row;
    gap : 20px;
    grid-template-areas: "category submit";
}

#category {
    grid-area : category;
}

#submit {
    grid-area : submit;
}

main {
    grid-area: main;
}

table {
    font-family: Arial, Helvetica, sans-serif;
    border-collapse: collapse;
    width: 100%;
}

table td, table th {
    border: 1px solid #ddd;
    padding: 8px;
}

table tr:nth-child(even) {
    background-color: #f2f2f2;
}

table tr:hover {
    background-color: #ddd;
}

table th {
    padding-top: 12px;
    padding-bottom: 12px;
    text-align: left;
    background-color: #03355f;
    color: white;
}
```

```

<div class="container">
    <header>
        <form action="${pageContext.request.contextPath}/BBSController4" method="POST">
            <div id="category">
                <c:forEach var="item" items="${category}" varStatus="x">
                    <label>${item}</label>
                    <input type="radio" name="category" id="" value="${item}" />
                </c:forEach>
            </div>
            <button id="submit">전송</button>
        </form>
    </header>
    <main>
        <table>
            <thead>
                <tr>
                    <th>id</th>
                    <th>카테고리</th>
                    <th>제목</th>
                    <th>글쓴이</th>
                    <th>작성일/작성시간</th>
                </tr>
            </thead>
            <tbody>
                <c:forEach var="vo" items="${list}">
                    <tr>
                        <td>${vo.id}</td>
                        <td>${vo.category}</td>
                        <td>${vo.title}</td>
                        <td>${vo.owner}</td>
                        <td>${vo.createDate}</td>
                    </tr>
                </c:forEach>
            </tbody>
        </table>
    </main>
</div>

```

BBSController4.java

```

protected void doGet(HttpServletRequest request, HttpServletResponse response) {
    request.setCharacterEncoding("utf-8");

    BBSService service = new BBSService();
    service.getBBSList4(request);

    RequestDispatcher rdp =
        request.getRequestDispatcher("/WEB-INF/result/result4.jsp");
    rdp.forward(request, response);
}

```

BBSService.java

```

public void getBBSList4(HttpServletRequest request) {
    if (request.getParameter("category") != null) {
        BBSInputVO vo = new BBSInputVO();
        vo.setCategory(request.getParameter("category"));
        request.setAttribute("list", dao.selectBBSList4(vo));
    } else {
        getBBSList1(request);
    }
    request.setAttribute("category", dao.selectAllCategoryList());
}

```


(5) 정답

Result5.jsp

```
* {
  box-sizing : border-box;
}

.container {
  display: grid;
  grid-template-columns: 200px 1fr 200px;
  grid-template-rows: 50px 100px 50px 1fr 200px;
  gap: 0px 0px;
  grid-auto-flow: row;
  grid-template-areas: ". . ." ". header ." ". . ." ". main ." ". . .";
}

header {
  grid-area : header;
  border : 1px solid black;
  display: grid;
  grid-template-columns: 30px 1fr 30px;
  grid-template-rows: 20px 1fr 20px;
  grid-auto-flow: row;
  grid-template-areas: ". . ." ". form ." ". . .";
}

form {
  display : grid;
  grid-area : form;
  grid-template-columns: 1fr 100px;
  grid-template-rows: 1fr;
  grid-auto-flow: row;
  gap : 20px;
  grid-template-areas: "category submit";
}

#category {
  grid-area : category;
  font-size : 20px;
}

#submit {
  grid-area : submit;
}

main {
  grid-area: main;
}

table {
  font-family: Arial, Helvetica, sans-serif;
  border-collapse: collapse;
  width: 100%;
}

table td, table th {
  border: 1px solid #ddd;
  padding: 8px;
}

table tr:nth-child(even) {
  background-color: #f2f2f2;
}

table tr:hover {
  background-color: #ddd;
}

table th {
  padding-top: 12px;
  padding-bottom: 12px;
  text-align: left;
  background-color: #0335fc;
  color: white;
}
```

```

<div class="container">
  <header>
    <form action="${pageContext.request.contextPath}/BBSController5" method="post">
      <div>
        <c:choose>
          <c:when test="${choice eq '2'}">
            <label for="choice1">출수월</label>
            <input type="radio" name="choice" id="choice1" value="1">
            <label for="choice2">적수월</label>
            <input type="radio" name="choice" id="choice2" value="2" checked>
          </c:when>
          <c:otherwise>
            <label for="choice1">출수월</label>
            <input type="radio" name="choice" id="choice1" value="1" checked>
            <label for="choice2">적수월</label>
            <input type="radio" name="choice" id="choice2" value="2" >
          </c:otherwise>
        </c:choose>
      </div>
      <button id="submit">변경</button>
    </form>
  </header>
  <main>
    <table>
      <thead>
        <tr>
          <th>id</th>
          <th>카테고리</th>
          <th>제목</th>
          <th>글쓴이</th>
          <th>작성일/작성시간</th>
        </tr>
      </thead>
      <tbody>
        <c:forEach var="vo" items="${list}">
          <tr>
            <td>${vo.id}</td>
            <td>${vo.category}</td>
            <td>${vo.title}</td>
            <td>${vo.owner}</td>
            <td>${vo.createDate}</td>
          </tr>
        </c:forEach>
      </tbody>
    </table>
  </main>
</div>

```

BBSController5.java

```

protected void doGet(HttpServletRequest request, HttpServletResponse response)
    request.setCharacterEncoding("utf-8");

    BBSservice service = new BBSservice();
    service.getBBSList5(request);

    RequestDispatcher rdp =
        request.getRequestDispatcher("/WEB-INF/result/result5.jsp");
    rdp.forward(request, response);
}

```

BBSservice.java

```

public void getBBSList5(HttpServletRequest request) {
    BBSInputVO vo = new BBSInputVO();
    String choice = request.getParameter("choice");
    if(choice == null || choice.equals("1")) {
        String[] str = {"01", "03", "05", "07", "09", "11"};
        vo.setMonths(Arrays.asList(str));
        request.setAttribute("choice", "1");
    } else {
        String[] str = {"02", "04", "06", "08", "10", "12"};
        vo.setMonths(Arrays.asList(str));
        request.setAttribute("choice", "2");
    }
    request.setAttribute("list", dao.selectBBSList5(vo));
}

```

(6) 정답

Result6.jsp

```
<style>
* {
    box-sizing : border-box;
}

.container {
    display: grid;
    grid-template-columns: 200px 1fr 200px;
    grid-template-rows: 50px 100px 50px 1fr 200px;
    gap: 0px 0px;
    grid-auto-flow: row;
    grid-template-areas: ". . ." ". header ." ". . ." ". main ." ". . .";
}

header {
    grid-area : header;
    border : 1px solid black;
    display: grid;
    grid-template-columns: 30px 1fr 30px;
    grid-template-rows: 20px 1fr 20px;
    grid-auto-flow: row;
    grid-template-areas: ". . ." ". form ." ". . .";
}

form {
    display : grid;
    grid-area : form;
    grid-template-columns: 1fr 100px;
    grid-template-rows: 1fr;
    grid-auto-flow: row;
    gap : 20px;
    grid-template-areas: "category submit";
}

#category {
    grid-area : category;
    font-size : 20px;
}

#submit {
    grid-area : submit;
}

main {
    grid-area: main;
}

table {
    font-family: Arial, Helvetica, sans-serif;
    border-collapse: collapse;
    width: 100%;
}

table td, table th {
    border: 1px solid #ddd;
    padding: 8px;
}

table tr:nth-child(even) {
    background-color: #f2f2f2;
}

table tr:hover {
    background-color: #ddd;
}

table th {
    padding-top: 12px;
    padding-bottom: 12px;
    text-align: left;
    background-color: #0335fc;
    color: white;
}
</style>
```


BBSController6.java

```
protected void doGet(HttpServletRequest request, HttpServletResponse response)
    request.setCharacterEncoding("utf-8");

    BBSService service = new BBSService();
    service.getBBSList6(request);

    RequestDispatcher rdp =
        request.getRequestDispatcher("/WEB-INF/result/result6.jsp");
    rdp.forward(request, response);
}
```

BBSService.java

```
public void getBBSList6(HttpServletRequest request) {
    BBSInputVO vo = new BBSInputVO();
    String startMonth = request.getParameter("startmonth");
    String endMonth = request.getParameter("endmonth");
    vo.setStartMonth((startMonth==null)?"01":startMonth);
    vo.setEndMonth((endMonth==null)?"12":endMonth);

    request.setAttribute("list", dao.selectBBSList6(vo));
}
```


(7) 정답

Result7.jsp

```
* {
    box-sizing : border-box;
}

.container {
    display: grid;
    grid-template-columns: 200px 1fr 200px;
    grid-template-rows: 50px 100px 50px 1fr 200px;
    gap: 0px 0px;
    grid-auto-flow: row;
    grid-template-areas: ". . ." ". header ." ". . ." ". main ." ". . .";
}

header {
    grid-area : header;
    border : 1px solid black;
    display: grid;
    grid-template-columns: 30px 1fr 30px;
    grid-template-rows: 20px 1fr 20px;
    grid-auto-flow: row;
    grid-template-areas: ". . ." ". form ." ". . .";
}

form {
    display : grid;
    grid-area : form;
    grid-template-columns: 1fr 100px;
    grid-template-rows: 1fr;
    grid-auto-flow: row;
    gap : 20px;
    grid-template-areas: "category submit";
}

#category {
    grid-area : category;
    font-size : 20px;
}

#submit {
    grid-area : submit;
}

main {
    grid-area: main;
}

table {
    font-family: Arial, Helvetica, sans-serif;
    border-collapse: collapse;
    width: 100%;
}

table td, table th {
    border: 1px solid #ddd;
    padding: 8px;
}

table tr:nth-child(even) {
    background-color: #f2f2f2;
}

table tr:hover {
    background-color: #ddd;
}

table th {
    padding-top: 12px;
    padding-bottom: 12px;
    text-align: left;
    background-color: #0335fc;
    color: white;
}
```


BBSController7.java

```
protected void doGet(HttpServletRequest request, HttpServletResponse response)
    request.setCharacterEncoding("utf-8");

    BBSservice service = new BBSservice();
    service.getBBSList7(request);

    RequestDispatcher rdp =
        request.getRequestDispatcher("/WEB-INF/result/result7.jsp");
    rdp.forward(request, response);
}
```

BBSservice.java

```
public void getBBSList7(HttpServletRequest request) {
    String[] months = request.getParameterValues("months");
    if(months == null) {
        months = new String[]{"01","02","03","04",
            "05","06","07","08","09","10","11","12"};
    }
    List<List<BBSOutputVO>> list = new ArrayList<List<BBSOutputVO>>();

    for (int i = 0; i < months.length; i++) {
        BBSInputVO vo = new BBSInputVO();
        vo.setMonth(months[i]);
        list.add(dao.selectBBSList7(vo));
    }

    request.setAttribute("list", list);
}
```

(8) 정답

```
* {
  box-sizing : border-box;
}

.container {
  display: grid;
  grid-template-columns: 200px 1fr 200px;
  grid-template-rows: 50px 100px 50px 1fr 200px;
  gap: 0px 0px;
  grid-auto-flow: row;
  grid-template-areas: ". . ." ". header ." ". . ." ". main ." ". . .";
}

header {
  grid-area : header;
  border : 1px solid black;
  display: grid;
  grid-template-columns: 30px 1fr 30px;
  grid-template-rows: 20px 1fr 20px;
  grid-auto-flow: row;
  grid-template-areas: ". . ." ". form ." ". . .";
}

form {
  display : grid;
  grid-area : form;
  grid-template-columns: 1fr 100px;
  grid-template-rows: 1fr;
  grid-auto-flow: row;
  gap : 20px;
  grid-template-areas: "category submit";
}

#category {
  grid-area : category;
  font-size : 20px;
}

#submit {
  grid-area : submit;
}

main {
  grid-area: main;
}

table {
  font-family: Arial, Helvetica, sans-serif;
  border-collapse: collapse;
  width: 100%;
}

table td, table th {
  border: 1px solid #ddd;
  padding: 8px;
}

table tr:nth-child(even) {
  background-color: #f2f2f2;
}

table tr:hover {
  background-color: #ddd;
}

table th {
  padding-top: 12px;
  padding-bottom: 12px;
  text-align: left;
  background-color: #0335fc;
  color: white;
}
```

```

<div class="container">
  <header>
    <form action="${pageContext.request.contextPath}/BBSController8" method="post">
      <input type="text" name="owner" id="owner" placeholder="글쓴이를 입력하세요">
      <button id="submit">전송</button>
    </form>
  </header>
  <main>
    <table>
      <thead>
        <tr>
          <th>id</th>
          <th>카테고리</th>
          <th>제목</th>
          <th>내용</th>
          <th>글쓴이</th>
          <th>작성일/작성시간</th>
        </tr>
      </thead>
      <tbody>
        <c:forEach var="vo" items="${list}">
          <tr>
            <td>${vo.id}</td>
            <td>${vo.category}</td>
            <td>${vo.title}</td>
            <td>${vo.content}</td>
            <td>${vo.owner}</td>
            <td>${vo.createDate}</td>
          </tr>
        </c:forEach>
      </tbody>
    </table>
  </main>
</div>

```

BBSController9.java

```

protected void doGet(HttpServletRequest request, HttpServletResponse response)
    request.setCharacterEncoding("utf-8");

    BBSService service = new BBSService();
    service.getBBSList8(request);

    RequestDispatcher rdp =
        request.getRequestDispatcher("/WEB-INF/result/result8.jsp");
    rdp.forward(request, response);
}

```

BBSService.java

```

public void getBBSList8(HttpServletRequest request) {
    BBSInputVO vo = new BBSInputVO();
    vo.setOwner(request.getParameter("owner"));

    request.setAttribute("list", dao.selectBBSList8(vo));
}

```


(9) 정답

Result9.jsp

```
* {
    box-sizing : border-box;
}

.container {
    display: grid;
    grid-template-columns: 200px 1fr 200px;
    grid-template-rows: 50px 100px 50px 1fr 200px;
    gap: 0px 0px;
    grid-auto-flow: row;
    grid-template-areas: ". . ." ". header ." ". . ." ". main ." ". . .";
}

header {
    grid-area : header;
    border : 1px solid black;
    display: grid;
    grid-template-columns: 30px 1fr 30px;
    grid-template-rows: 20px 1fr 20px;
    grid-auto-flow: row;
    grid-template-areas: ". . ." ". form ." ". . .";
}

form {
    display : grid;
    grid-area : form;
    grid-template-columns: 1fr 100px;
    grid-template-rows: 1fr;
    grid-auto-flow: row;
    gap : 20px;
    grid-template-areas: "category submit";
}

#category {
    grid-area : category;
    font-size : 20px;
}

#submit {
    grid-area : submit;
}

main {
    grid-area: main;
}

table {
    font-family: Arial, Helvetica, sans-serif;
    border-collapse: collapse;
    width: 100%;
}

table td, table th {
    border: 1px solid #ddd;
    padding: 8px;
}

table tr:nth-child(even) {
    background-color: #f2f2f2;
}

table tr:hover {
    background-color: #ddd;
}

table th {
    padding-top: 12px;
    padding-bottom: 12px;
    text-align: left;
    background-color: #0335fc;
    color: white;
}
```

```

<div class="container">
  <header>
    <form action="${pageContext.request.contextPath}/BBSController9" method="post">
      <input type="text" name="title" id="title" placeholder="제목을 입력하세요">
      <button id="submit">전송</button>
    </form>
  </header>
  <main>
    <table>
      <thead>
        <tr>
          <th>id</th>
          <th>카테고리</th>
          <th>제목</th>
          <th>내용</th>
          <th>글쓴이</th>
          <th>작성일/작성시간</th>
        </tr>
      </thead>
      <tbody>
        <c:forEach var="vo" items="${list}">
          <tr>
            <td>${vo.id}</td>
            <td>${vo.category}</td>
            <td>${vo.title}</td>
            <td>${vo.content}</td>
            <td>${vo.owner}</td>
            <td>${vo.createDate}</td>
          </tr>
        </c:forEach>
      </tbody>
    </table>
  </main>
</div>

```

BBSController9.java

```

protected void doGet(HttpServletRequest request, HttpServletResponse response)
    request.setCharacterEncoding("utf-8");

    BBSService service = new BBSService();
    service.getBBSList9(request);

    RequestDispatcher rdp =
        request.getRequestDispatcher("/WEB-INF/result/result9.jsp");
    rdp.forward(request, response);
}

```

BBSService.java

```

public void getBBSList9(HttpServletRequest request) {
    BBSInputVO vo = new BBSInputVO();
    if(request.getParameter("title") != null &&
        !request.getParameter("title").equals("")) {
        vo.setTitle("%"+request.getParameter("title")+"%");
    }
    request.setAttribute("list", dao.selectBBSList8(vo));
}

```

(10) 정답

Result10.jsp

```
* {
    box-sizing : border-box;
}

.container {
    display: grid;
    grid-template-columns: 200px 1fr 200px;
    grid-template-rows: 50px 100px 50px 1fr 200px;
    gap: 0px 0px;
    grid-auto-flow: row;
    grid-template-areas: ". . ." ". header ." ". . ." ". main ." ". . .";
}

header {
    grid-area : header;
    border : 1px solid black;
    display: grid;
    grid-template-columns: 30px 1fr 30px;
    grid-template-rows: 20px 1fr 20px;
    grid-auto-flow: row;
    grid-template-areas: ". . ." ". form ." ". . .";
}

form {
    display : grid;
    grid-area : form;
    grid-template-columns: 1fr 100px;
    grid-template-rows: 1fr;
    grid-auto-flow: row;
    gap : 20px;
    grid-template-areas: "category submit";
}

#category {
    grid-area : category;
    font-size : 20px;
}

#submit {
    grid-area : submit;
}

main {
    grid-area: main;
}

table {
    font-family: Arial, Helvetica, sans-serif;
    border-collapse: collapse;
    width: 100%;
}

table td, table th {
    border: 1px solid #ddd;
    padding: 8px;
}

table tr:nth-child(even) {
    background-color: #f2f2f2;
}

table tr:hover {
    background-color: #ddd;
}

table th {
    padding-top: 12px;
    padding-bottom: 12px;
    text-align: left;
    background-color: #0335fc;
    color: white;
}
```

```

<div class="container">
  <header>
    <form action="{pageContext.request.contextPath}/BBSController10" method="post">
      <input type="text" name="content" id="content" placeholder="내용을 입력하세요">
      <button id="submit">전송</button>
    </form>
  </header>
  <main>
    <table>
      <thead>
        <tr>
          <th>id</th>
          <th>카테고리</th>
          <th>제목</th>
          <th>내용</th>
          <th>글쓴이</th>
          <th>작성일/작성시간</th>
        </tr>
      </thead>
      <tbody>
        <c:forEach var="vo" items="{list}">
          <tr>
            <td>${vo.id}</td>
            <td>${vo.category}</td>
            <td>${vo.title}</td>
            <td>${vo.content}</td>
            <td>${vo.owner}</td>
            <td>${vo.createDate}</td>
          </tr>
        </c:forEach>
      </tbody>
    </table>
  </main>
</div>

```

BBSController10.java

```

protected void doGet(HttpServletRequest request, HttpServletResponse response) {
    request.setCharacterEncoding("utf-8");

    BBSService service = new BBSService();
    service.getBBSList10(request);

    RequestDispatcher rdp =
        request.getRequestDispatcher("/WEB-INF/result/result10.jsp");
    rdp.forward(request, response);
}

```

BBSService.java

```

public void getBBSList10(HttpServletRequest request) {
    BBSInputVO vo = new BBSInputVO();
    if(request.getParameter("content") != null &&
        !request.getParameter("content").equals("")) {
        vo.setContent("%"+request.getParameter("content")+"%");
    }
    request.setAttribute("list", dao.selectBBSList8(vo));
}

```

(11) 정답

Result11.jsp

```
<style>
* {
    box-sizing : border-box;
}

.container {
    display: grid;
    grid-template-columns: 200px 1fr 200px;
    grid-template-rows: 50px 100px 50px 1fr 200px;
    gap: 0px 0px;
    grid-auto-flow: row;
    grid-template-areas: ". . ." ". header ." ". . ." ". main ." ". . .";
}

header {
    grid-area : header;
    border : 1px solid black;
    display: grid;
    grid-template-columns: 30px 1fr 30px;
    grid-template-rows: 20px 1fr 20px;
    grid-auto-flow: row;
    grid-template-areas: ". . ." ". form ." ". . .";
}

form {
    display : grid;
    grid-area : form;
    grid-template-columns: 100px 1fr 100px;
    grid-template-rows: 1fr;
    grid-auto-flow: row;
    gap : 20px;
    grid-template-areas: "order content submit";
}

#order {
    grid-area : order;
    font-size : 20px;
}

#content {
    grid-area : content;
}

#submit {
    grid-area : submit;
}

main {
    grid-area: main;
}

table {
    font-family: Arial, Helvetica, sans-serif;
    border-collapse: collapse;
    width: 100%;
}

table td, table th {
    border: 1px solid #ddd;
    padding: 8px;
}

table tr:nth-child(even) {
    background-color: #f2f2f2;
}

table tr:hover {
    background-color: #ddd;
}

table th {
    padding-top: 12px;
    padding-bottom: 12px;
    text-align: left;
    background-color: #0335fc;
    color: white;
}
</style>
```



```


<header>
        <form action="${pageContext.request.contextPath}/BBSController11" method="post">
            <select name="order" id="order">
                <option value="1">글쓴이</option>
                <option value="2">제목</option>
                <option value="3">내용</option>
            </select>
            <input type="text" name="content" id="content" placeholder="내용을 입력하세요">
            <button id="submit">전송</button>
        </form>
    </header>
    <main>
        <table>
            <thead>
                <tr>
                    <th>id</th>
                    <th>카테고리</th>
                    <th>제목</th>
                    <th>내용</th>
                    <th>글쓴이</th>
                    <th>작성일/작성시간</th>
                </tr>
            </thead>
            <tbody>
                <c:forEach var="vo" items="${list}">
                    <tr>
                        <td>${vo.id}</td>
                        <td>${vo.category}</td>
                        <td>${vo.title}</td>
                        <td>${vo.content}</td>
                        <td>${vo.owner}</td>
                        <td>${vo.createDate}</td>
                    </tr>
                </c:forEach>
            </tbody>
        </table>
    </main>
</div>


```

BBSController11.java

```

protected void doGet(HttpServletRequest request, HttpServletResponse response) {
    request.setCharacterEncoding("utf-8");

    BBSService service = new BBSService();
    service.getBBSList11(request);

    RequestDispatcher rdp =
        request.getRequestDispatcher("/WEB-INF/result/result11.jsp");
    rdp.forward(request, response);
}

```

BBSService.java

```

public void getBBSList11(HttpServletRequest request) {
    BBSInputVO vo = new BBSInputVO();
    if(request.getParameter("order") != null &&
        !request.getParameter("order").equals("")) {
        if(request.getParameter("order").equals("1")) {
            vo.setOwner(request.getParameter("content"));
        } else if(request.getParameter("order").equals("2")) {
            vo.setTitle("%"+request.getParameter("content")+"%");
        } else if(request.getParameter("order").equals("3")) {
            vo.setContent("%"+request.getParameter("content")+"%");
        }
    }
    request.setAttribute("list", dao.selectBBSList8(vo));
}

```

(12) 정답

Result12.jsp

```
<style>
* {
    box-sizing : border-box;
}

.container {
    display: grid;
    grid-template-columns: 200px 1fr 200px;
    grid-template-rows: 50px 300px 50px 1fr 200px;
    gap: 0px 0px;
    grid-auto-flow: row;
    grid-template-areas: ". . ." ". header ." ". . ." ". main ." ". . .";
}

header {
    grid-area : header;
    border : 1px solid black;
    display: grid;
    grid-template-columns: 30px 1fr 30px;
    grid-template-rows: 20px 1fr 20px;
    grid-auto-flow: row;
    grid-template-areas: ". . ." ". form ." ". . .";
}

form {
    display : grid;
    grid-area : form;
    grid-template-columns: 100px 1fr;
    grid-template-rows: 1fr 1fr 1fr 1fr;
    grid-auto-flow: row;
    gap : 20px;
}

main {
    grid-area: main;
}

table {
    font-family: Arial, Helvetica, sans-serif;
    border-collapse: collapse;
    width: 100%;
}

table td, table th {
    border: 1px solid #ddd;
    padding: 8px;
}

table tr:nth-child(even) {
    background-color: #f2f2f2;
}

table tr:hover {
    background-color: #ddd;
}

table th {
    padding-top: 12px;
    padding-bottom: 12px;
    text-align: left;
    background-color: #0335fc;
    color: white;
}
</style>
```

```

<div class="container">
  <header>
    <form action="${pageContext.request.contextPath}/BBSController12" method="post">
      <label for="owner">글쓴이</label>
      <input type="text" name="owner" id="owner" placeholder="글쓴이를 입력하세요">
      <label for="title">제목</label>
      <input type="text" name="title" id="title" placeholder="제목을 입력하세요">
      <label for="content">내용</label>
      <input type="text" name="content" id="content" placeholder="내용을 입력하세요">
      <button id="submit">전송</button>
    </form>
  </header>
  <main>
    <table>
      <thead>
        <tr>
          <th>id</th>
          <th>카테고리</th>
          <th>제목</th>
          <th>내용</th>
          <th>글쓴이</th>
          <th>작성일/작성시간</th>
        </tr>
      </thead>
      <tbody>
        <c:forEach var="vo" items="${list}">
          <tr>
            <td>${vo.id}</td>
            <td>${vo.category}</td>
            <td>${vo.title}</td>
            <td>${vo.content}</td>
            <td>${vo.owner}</td>
            <td>${vo.createDate}</td>
          </tr>
        </c:forEach>
      </tbody>
    </table>
  </main>
</div>

```

BBSController12.java

```

protected void doGet(HttpServletRequest request, HttpServletResponse response)
    request.setCharacterEncoding("utf-8");

    BBSservice service = new BBSservice();
    service.getBBSList12(request);

    RequestDispatcher rdp =
        request.getRequestDispatcher("/WEB-INF/result/result12.jsp");
    rdp.forward(request, response);
}

```

BBSservice.java

```

public void getBBSList12(HttpServletRequest request) {
    BBSInputVO vo = new BBSInputVO();
    if(request.getParameter("owner") != null &&
        !request.getParameter("owner").equals("")) {
        vo.setOwner(request.getParameter("owner"));
    }
    if(request.getParameter("title") != null &&
        !request.getParameter("title").equals("")) {
        vo.setTitle("%"+request.getParameter("title")+"%");
    }
    if(request.getParameter("content") != null &&
        !request.getParameter("content").equals("")) {
        vo.setContent("%"+request.getParameter("content")+"%");
    }
    request.setAttribute("list", dao.selectBBSList8(vo));
}

```