## 4장 완성 코드

### src/build.gradle

plugins {  
 id 'java'  
 id 'org.springframework.boot' version '3.0.4'  
 id 'io.spring.dependency-management' version '1.1.0'  
}  
  
group = 'com.example'  
version = '0.0.1-SNAPSHOT'  
sourceCompatibility = '17'  
  
repositories {  
 mavenCentral()  
}  
  
dependencies {  
 compileOnly 'org.projectlombok:lombok'  
 annotationProcessor 'org.projectlombok:lombok'  
  
 implementation 'org.springframework.boot:spring-boot-starter-data-jpa'  
 implementation 'org.springframework.boot:spring-boot-starter-mustache'  
 implementation 'org.springframework.boot:spring-boot-starter-web'  
 runtimeOnly 'com.h2database:h2'  
 testImplementation 'org.springframework.boot:spring-boot-starter-test'  
}  
  
tasks.named('test') {  
 useJUnitPlatform()  
}

### dto/ArticleForm.java

**package** com.example.firstproject.dto;  
  
**import** com.example.firstproject.entity.Article;  
**import** lombok.AllArgsConstructor;  
**import** lombok.ToString;  
  
@AllArgsConstructor  
@ToString  
**public class** ArticleForm {  
 **private** String **title**; *// 제목을 받을 필드* **private** String **content**; *// 내용을 받을 필드* **public** Article toEntity() {  
 **return new** Article(**null**, **title**, **content**);  
 }  
}

### entity/Article.java

**package** com.example.firstproject.entity;  
  
**import** jakarta.persistence.Column;  
**import** jakarta.persistence.Entity;  
**import** jakarta.persistence.GeneratedValue;  
**import** jakarta.persistence.Id;  
**import** lombok.AllArgsConstructor;  
**import** lombok.ToString;  
  
@AllArgsConstructor  
@ToString  
@Entity  
**public class** Article {  
 @Id  
 @GeneratedValue  
 **private** Long **id**;  
  
 @Column  
 **private** String **title**;  
  
 @Column  
 **private** String **content**;  
  
}

### controller/ArticleController

**package** com.example.firstproject.controller;  
  
**import** com.example.firstproject.dto.ArticleForm;  
**import** com.example.firstproject.entity.Article;  
**import** com.example.firstproject.repository.ArticleRepository;  
**import** lombok.extern.slf4j.Slf4j;  
**import** org.springframework.beans.factory.annotation.Autowired;  
**import** org.springframework.stereotype.Controller;  
**import** org.springframework.web.bind.annotation.GetMapping;  
**import** org.springframework.web.bind.annotation.PostMapping;  
  
@Slf4j  
@Controller  
**public class** ArticleController {  
 @Autowired  
 **private** ArticleRepository **articleRepository**;  
  
 @GetMapping(**"/articles/new"**)  
 **public** String newArticleForm() {  
 **return "articles/new"**;  
 }  
  
 @PostMapping(**"/articles/create"**)  
 **public** String createArticle(ArticleForm form) {  
 ***log***.info(form.toString());  
 *// System.out.println(form.toString());  
  
 // 1. DTO를 엔티티로 변환* Article article = form.toEntity();  
 ***log***.info(article.toString());  
 *// System.out.println(article.toString());  
  
 // 2. 리파지터리로 엔티티를 DB에 저장* Article saved = **articleRepository**.save(article);  
 ***log***.info(saved.toString());  
 *// System.out.println(saved.toString());* **return ""**;  
 }  
}

### 셀프체크 정답

#### controller/MemberController.java

**package** com.example.firstproject.controller;  
  
**import** com.example.firstproject.entity.Member;  
**import** com.example.firstproject.dto.MemberForm;  
**import** com.example.firstproject.repository.MemberRepository;  
**import** lombok.extern.slf4j.Slf4j;  
**import** org.springframework.beans.factory.annotation.Autowired;  
**import** org.springframework.stereotype.Controller;  
**import** org.springframework.web.bind.annotation.GetMapping;  
**import** org.springframework.web.bind.annotation.PostMapping;  
  
@Slf4j  
@Controller  
**public class** MemberController {  
  
 @Autowired  
 MemberRepository **memberRepository**;  
  
 @GetMapping(**"/signup"**)  
 **public** String signUpPage() {  
 **return "members/new"**;  
 }  
  
 @PostMapping(**"/join"**)  
 **public** String join(MemberForm memberForm) {  
 ***log***.info(memberForm.toString());  
 Member member = memberForm.toEntity();  
 ***log***.info(member.toString());  
 Member saved = **memberRepository**.save(member);  
 ***log***.info(saved.toString());  
 **return ""**;  
 }  
}

#### dto/MemberForm.java

**package** com.example.firstproject.dto;  
  
**import** com.example.firstproject.entity.Member;  
**import** lombok.AllArgsConstructor;  
**import** lombok.ToString;  
  
@AllArgsConstructor  
@ToString  
**public class** MemberForm {  
 **private** String **email**;  
 **private** String **password**;  
  
 **public** Member toEntity() {  
 **return new** Member(**null**, **email**, **password**);  
 }  
}