

User Request

localhost:8080/user/create

Controller

```
@Controller
@RequestMapping("/user")
public class UserController {

    RoleService roleService;
    UserService userService;

    public UserController(RoleService roleService, UserService userService) {
        this.roleService = roleService;
        this.userService = userService;
    }

    @GetMapping("/create")
    public String createUser(Model model){

        model.addAttribute(attributeName: "user", new UserDTO());
        model.addAttribute(attributeName: "roles", roleService.listAllRoles());
        model.addAttribute(attributeName: "users", userService.listAllUsers());

        return "/user/create";
    }
}
```

Injection

Data Transfer(DTO) to view

Business/Service Layer

View

Service

```
public interface RoleService {

    List<RoleDTO> listAllRoles();
    RoleDTO findById(Long id);
}
```

Service Impl

```
@Service
public class RoleServiceImpl implements RoleService {

    private final RoleRepository roleRepository;
    private final RoleMapper roleMapper;

    public RoleServiceImpl(RoleRepository roleRepository, RoleMapper roleMapper) {
        this.roleRepository = roleRepository;
        this.roleMapper = roleMapper;
    }

    @Override
    public List<RoleDTO> listAllRoles() {

        List<Role> roleList = roleRepository.findAll();

        List<RoleDTO> roleDTOS = roleList.stream().map(obj -> roleMapper.convertToDto(obj)).collect(Collectors.toList());

        return roleDTOS;
    }
}
```

Injection

Convert Entity to DTO/Mapper

Return to Service

Repository

```
public interface RoleRepository extends JpaRepository<Role, Long> {

    Role findByDescription(String description);
}
```

Query

Returns Entity

