

开发设计规范

Go语言开发环境说明

- 开发语言: Golang v1.17
- 代码检查: Staticcheck v0.2.2
- 开发工具: JetBrains GoLand2020/2021
- 三方库: 需要满足License要求, 如MIT
- 编译出包: 支持win32/win64/linux

Java开发环境说明

- 编译工具: IntelliJ idea
- JDK版本: jdk1.8.0_281
- Spring boot: 2.6.6
- Elasticsearch: 6.8.23
- Postgresql: 14.4
- Beats: 6.8.23

```
<parent>
  <groupId>org.springframework.boot</groupId>
  <artifactId>spring-boot-starter-parent</artifactId>
  <version>2.6.6</version>
</parent><properties>
  <project.build.sourceEncoding>UTF-8</project.build.sourceEncoding>
  <project.reporting.outputEncoding>UTF-8</project.reporting.outputEncoding>
  <java.version>1.8</java.version>

  <commons.lang.version>3.12.0</commons.lang.version>
  <commons.collection4.version>4.4</commons.collection4.version>
  <commons.codec.version>1.15</commons.codec.version>
  <commons-io.version>2.11.0</commons-io.version>
  <commons-text.version>1.9</commons-text.version>
  <org.mapstruct.version>1.4.2.Final</org.mapstruct.version>
  <org.projectlombok.version>1.18.22</org.projectlombok.version>
  <gson.version>2.9.0</gson.version>
  <guava.version>31.1-jre</guava.version>
  <fastjson.version>1.2.80</fastjson.version>
  <org.mockito.version>1.10.19</org.mockito.version>
  <validator.version>1.7</validator.version>
  <hutool.version>5.7.22</hutool.version>

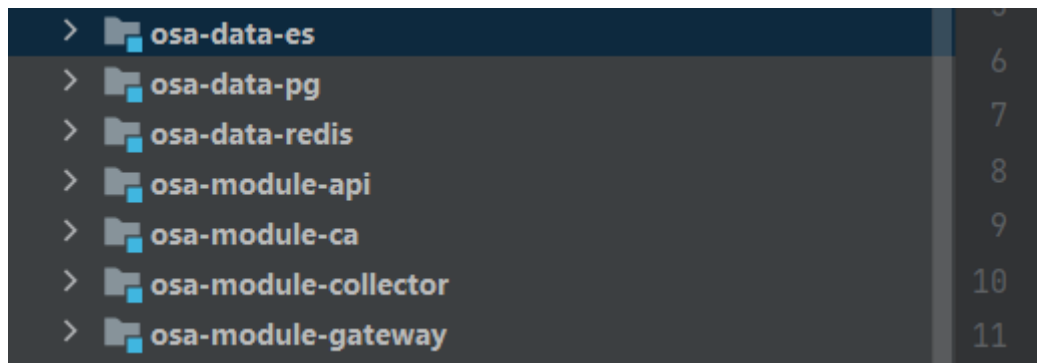
  <maven.compiler.plugin.version>3.8.1</maven.compiler.plugin.version>
  <jacoco.maven.plugin.version>0.8.5</jacoco.maven.plugin.version>
  <maven.checkstyle.plugin.version>3.1.1</maven.checkstyle.plugin.version>
  <elasticsearch.version>6.8.23</elasticsearch.version>
</properties>
```

设计规范

数据层与业务层独立

数据库提供通过参数查询数据的功能，不涉及任何的业务代码；

业务层不涉及任何的数据库层面的操作(包括构建QueryBean)，只通过参数和数据层提供的接口查询数据库数据。



目录结构说明

数据层

config: 存放配置类

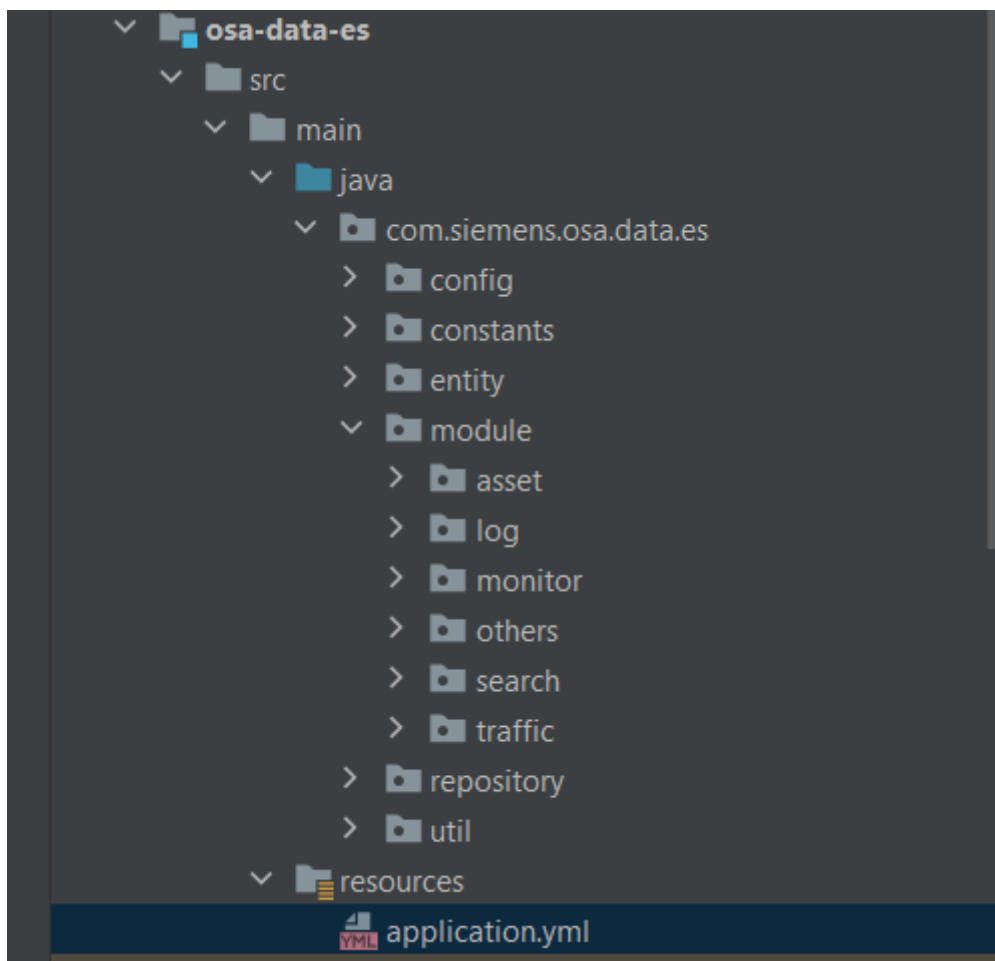
constants: 存放常量类

entity: 存放实体类

util: 存放工具类

repository: 数据库连接的通用客户端

module: 存放具体业务模块所需的dao, entity, service

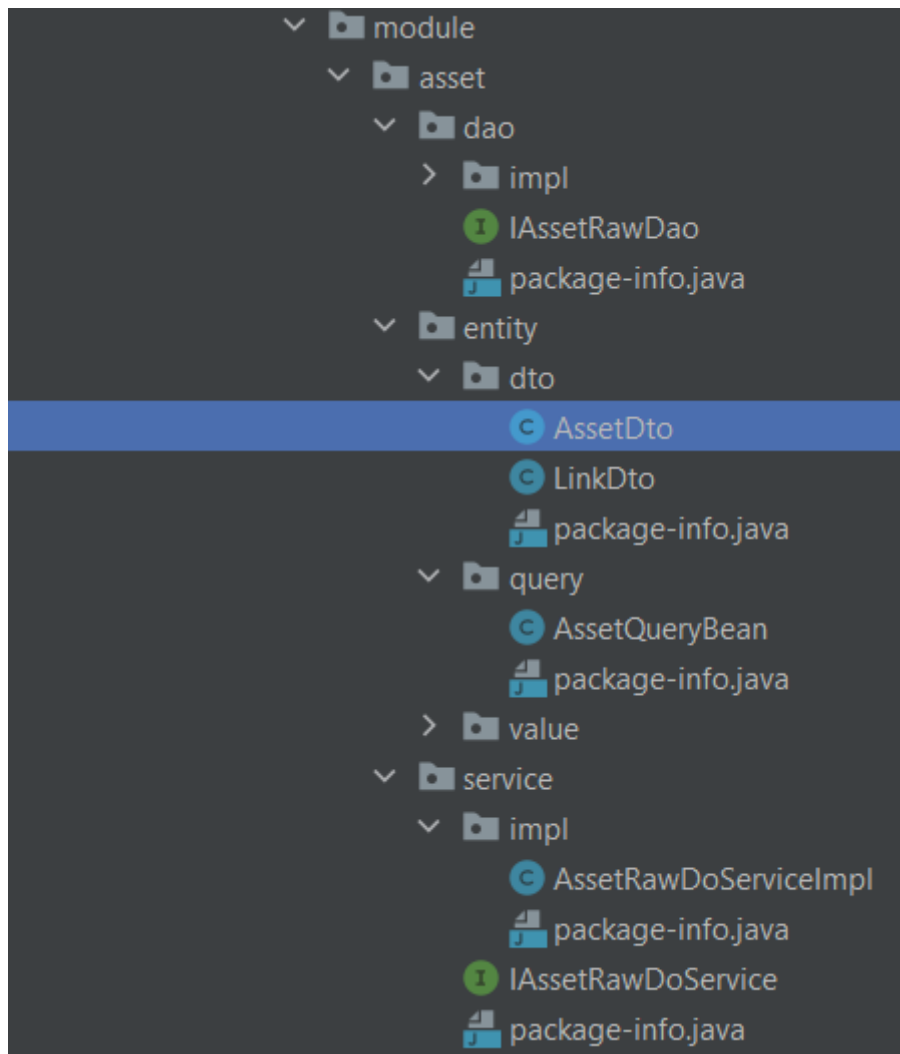


针对具体的module，包括dao，entity，service三个目录：

dao：数据库查询

entity：数据库表结构/嵌套的实体/查询参数

service：通过业务端传过来的参数构建的查询实体进行查询



业务层

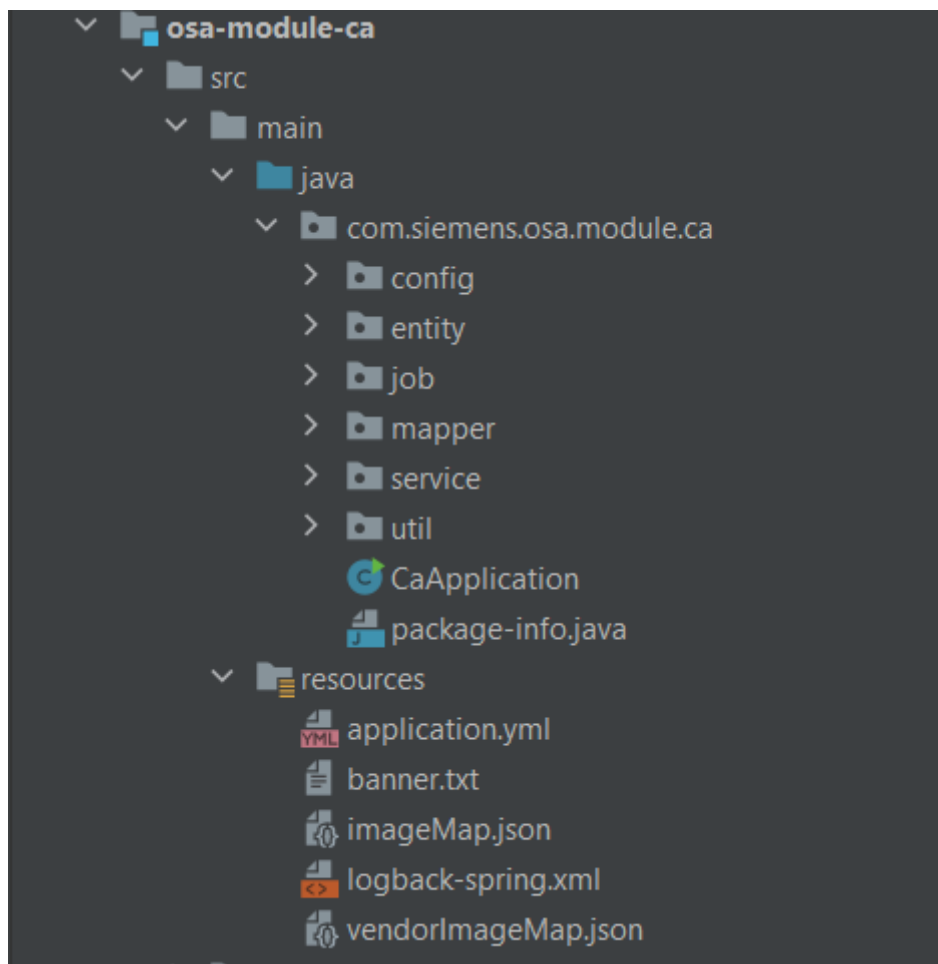
config: 存放配置类

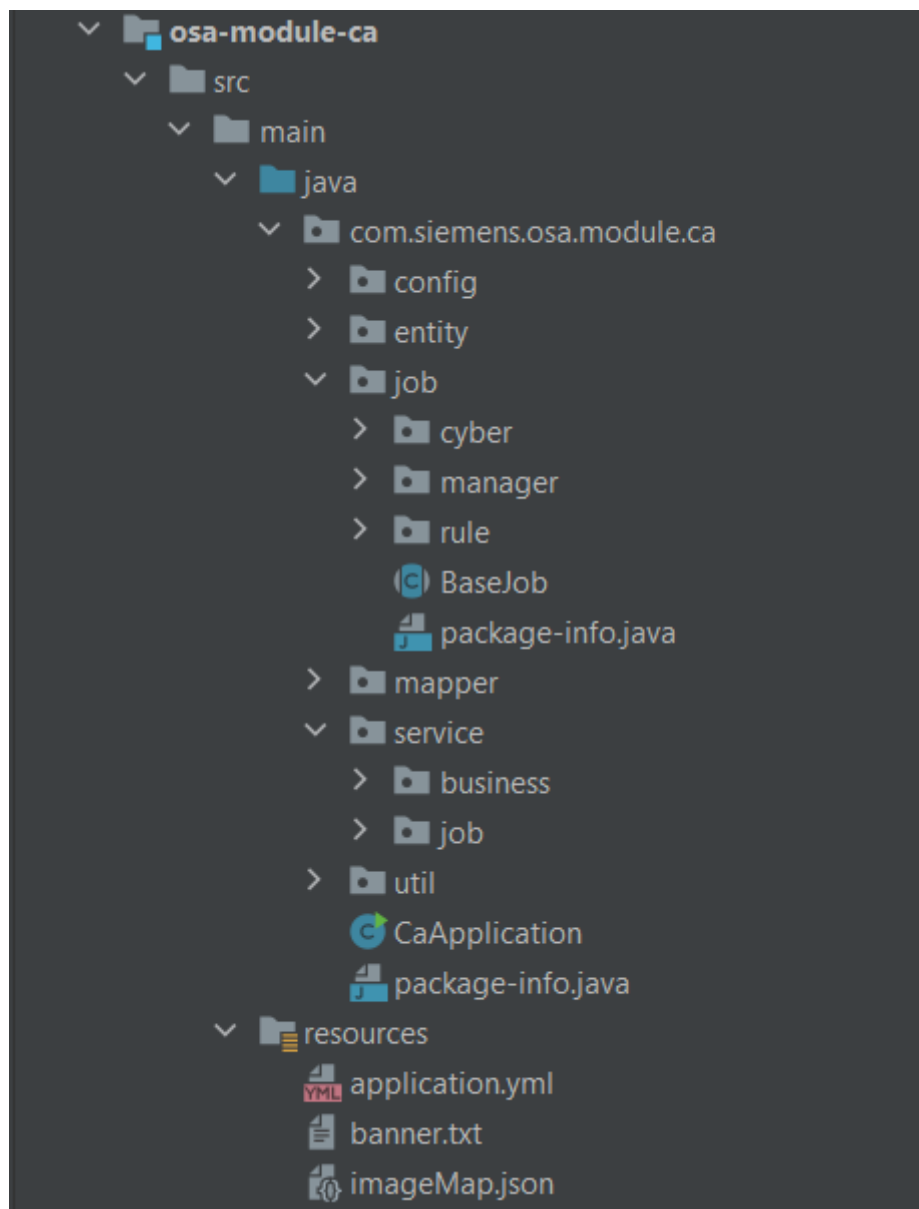
entity: 存放实体类

job: 定时任务类

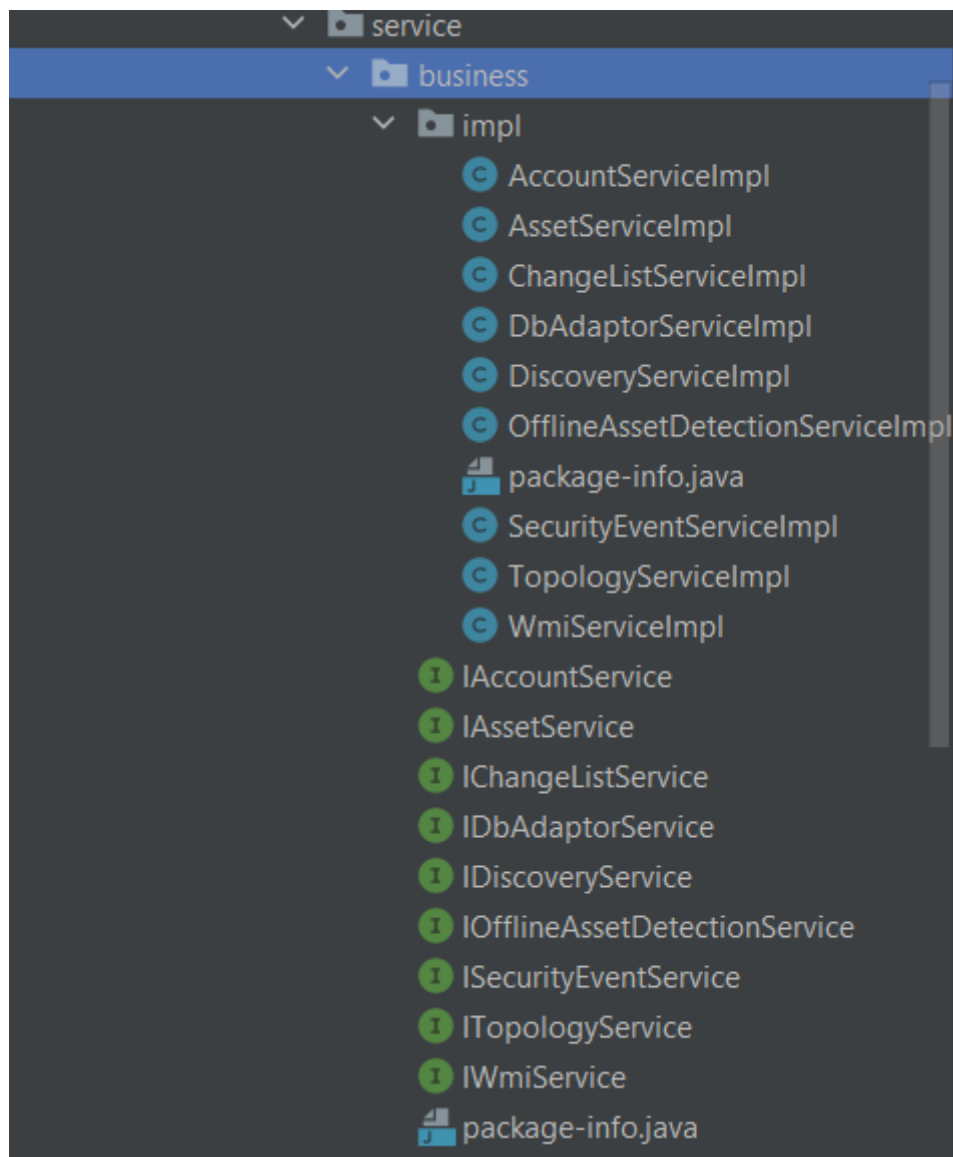
mapper: 针对实体的前后端转换

util: 存放工具类





面向接口调用



```
@Service
public class AccountServiceImpl implements IAccountService {

    /**
     * accountGroupDoService.
     */
    private final IAccountGroupDoService accountGroupDoService;

    /**
     * accountDoService.
     */
    private final IAccountDoService accountDoService;

    /**
     * dbAdaptorService.
     */
    private final IDbAdaptorService dbAdaptorService;
}
```

代码规范

会提供相应的checkstyle.xml, JavaCodeFormatter.xml.

```
/**
 * account service implement.
 *
 * @author zhang.jun-jie@siemens.com
 * @author wu.hongfeng@siemens.com
 */
@Service
public class AccountServiceImpl implements IAccountService {

    /**
```

```
/**
 * updateAccountGroupDetails.
 *
 * @param accountGroups
 *         accountGroups
 * @param accountGroupDtos
 *         accountGroupDtos
 * @return AccountGroup List
 */
private List<AccountGroup> updateAccountGroupDetails(Collection<AccountGroup> accountGroups,
        Collection<AccountGroupDto> accountGroupDtos) {
    List<AccountGroup> localAccounts = new ArrayList<>();
    Set<AccountGroup> domainAccounts = new HashSet<>();

    for (AccountGroup accountGroup : accountGroups) {
        if (accountGroup.isLocalAccount()) {
            localAccounts.add(accountGroup);
        } else {
            domainAccounts.add(accountGroup);
        }
    }
}
```