

ZSJF003 – Category Management

Module Overview

Manages product categories and hierarchical categories (parent → child). Used by `tbl_product.category_id`.

Table Definition

```
CREATE TABLE tbl_category (  
    category_id INT AUTO_INCREMENT PRIMARY KEY,  
    name VARCHAR(150),  
    description TEXT,  
    parent_id INT NULL,  
    is_active TINYINT DEFAULT 1,  
    created_at DATETIME DEFAULT NOW()  
);
```

Stored Procedures

```
DELIMITER //  
CREATE PROCEDURE sp_tbl_category_insert(IN p_name VARCHAR(150), IN  
p_description TEXT, IN p_parent_id INT, IN p_is_active TINYINT)  
BEGIN  
    INSERT INTO tbl_category(name, description, parent_id, is_active,  
created_at)  
    VALUES(p_name, p_description, p_parent_id, p_is_active, NOW());  
END //  
DELIMITER ;  
  
-- sp_tbl_category_update(category_id, name, description, parent_id,  
is_active)  
-- sp_tbl_category_delete(category_id)  
-- sp_tbl_category_get_all()  
-- sp_tbl_category_get_by_id(category_id)
```

Spring Boot Repository

```
@Repository  
public class CategoryRepository {  
    @Autowired JdbcTemplate jdbc;  
    public void insert(Map<String, Object> p) {  
        jdbc.update("CALL sp_tbl_category_insert(?,?,?,?)",  
            p.get("name"), p.get("description"), p.get("parent_id"),  
p.get("is_active"));  
    }  
    // update, delete, getAll, getById similar calling corresponding SPs  
}
```

Controller & API

```
/api/category/add, /api/category/update, /api/category/delete/{id},  
/api/category/list, /api/category/{id}
```

Angular Service

```
add(payload){ return http.post('/api/category/add', payload); }  
list(){ return http.get('/api/category/list'); }
```

Example JSON

```
{ "name":"Mobiles", "description":"Smartphones", "parent_id":1,  
  "is_active":1 }
```

Deliverables

- tbl_category SQL + SPs
- Java src folder version 17
- Angular category management page (list/add/edit) angular component version 11
- Postman collection & README

Learning Outcomes

Design hierarchical categories, SPs for hierarchical data, mapping front-end to SP-backed APIs.

ZSJF004 – Brand Management

Module Overview

Stores brands. Brands may be shown as filters on product pages.

Table Definition

```
CREATE TABLE tbl_brand (  
  brand_id INT AUTO_INCREMENT PRIMARY KEY,  
  name VARCHAR(150),  
  description TEXT,  
  is_active TINYINT DEFAULT 1,  
  created_at DATETIME DEFAULT NOW()  
);
```

Stored Procedures

```
sp_tbl_brand_insert(name, description, is_active), sp_tbl_brand_update(...),  
sp_tbl_brand_delete(brand_id), sp_tbl_brand_get_all(),  
sp_tbl_brand_get_by_id(brand_id)
```

Java / Controller / Angular

Same pattern as previous modules; endpoints `/api/brand/*`.

Example JSON

```
{ "name": "Acme", "description": "Acme Electronics", "is_active": 1 }
```

Deliverables & Learning Outcomes

Brand CRUD, linking `brand_id` to `tbl_product`.
