Design Document

Introduction

This is Software Design Document for ABC Store Product Catalog Management. This document cover backend artifacts of product catalog management.

System Overview

Product Catalog will be use by public facing website and native mobile applications. Product Catalog will be available to front end systems via secure API end points to add , update and delete (Soft or Hard ??) Catalog , Product and Product attributes.
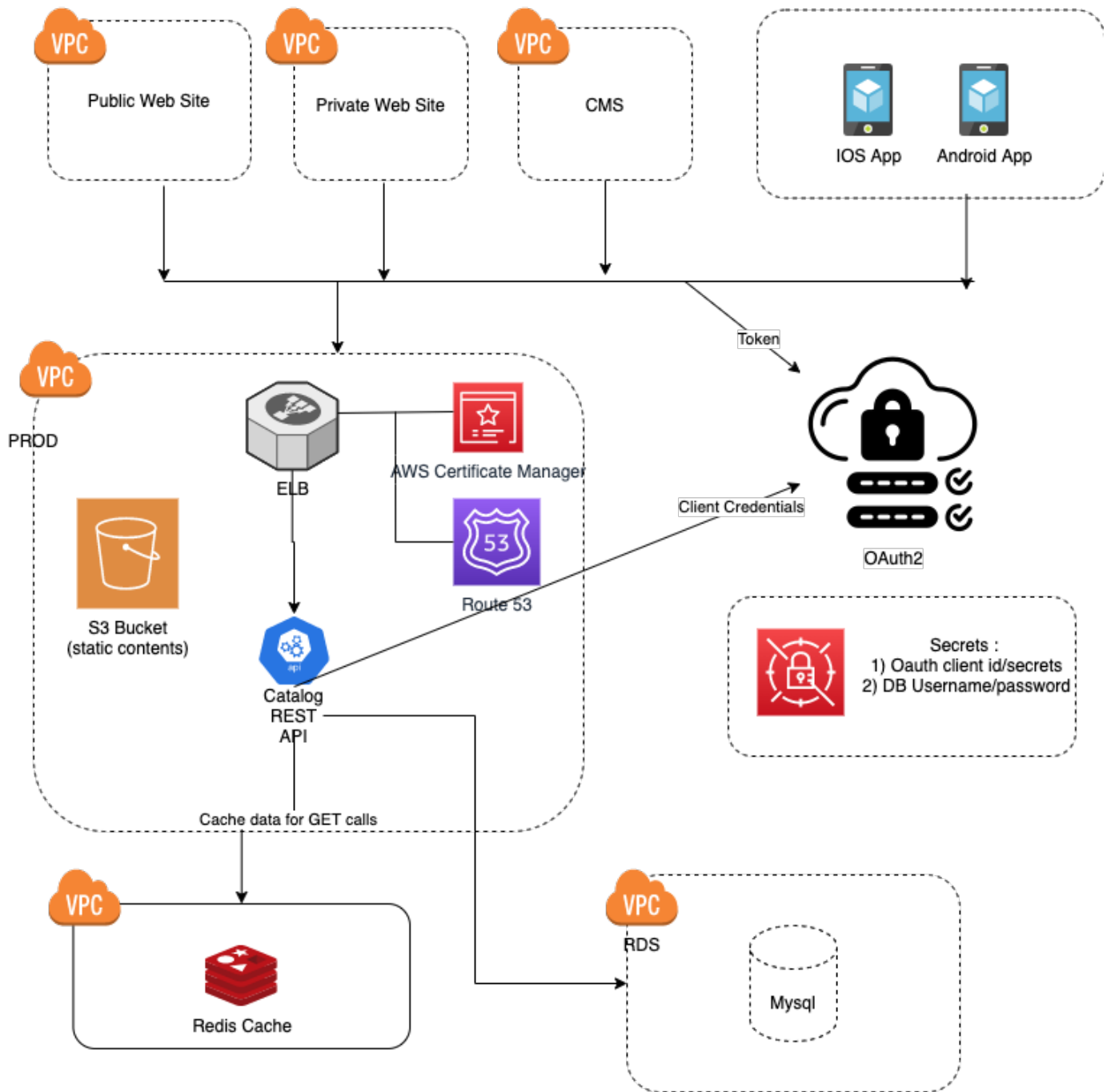
Consumers

- Public Website(s)
- Native Mobile Aps (Android , IOS)
- Internal website (or portal)

Usage

- Read : Public websites and Native Mobile Apps
- Write : Internal website to manage Product Catalog
- Delete : Internal website to manage Product Catalog

System Architecture

VPC	VPC	VPC	
Public Web Site	Private Web Site	CMS	IOS App Android App

Token

VPC

PROD

ELB

AWS Certificate Manager

Route 53

S3 Bucket
(static contents)

Catalog
REST
API

Client Credentials

OAuth2

Secrets :
1) Oauth client id/secrets
2) DB Username/password

Cache data for GET calls

VPC

Redis Cache

VPC

RDS

Mysql

Sequence Diagram
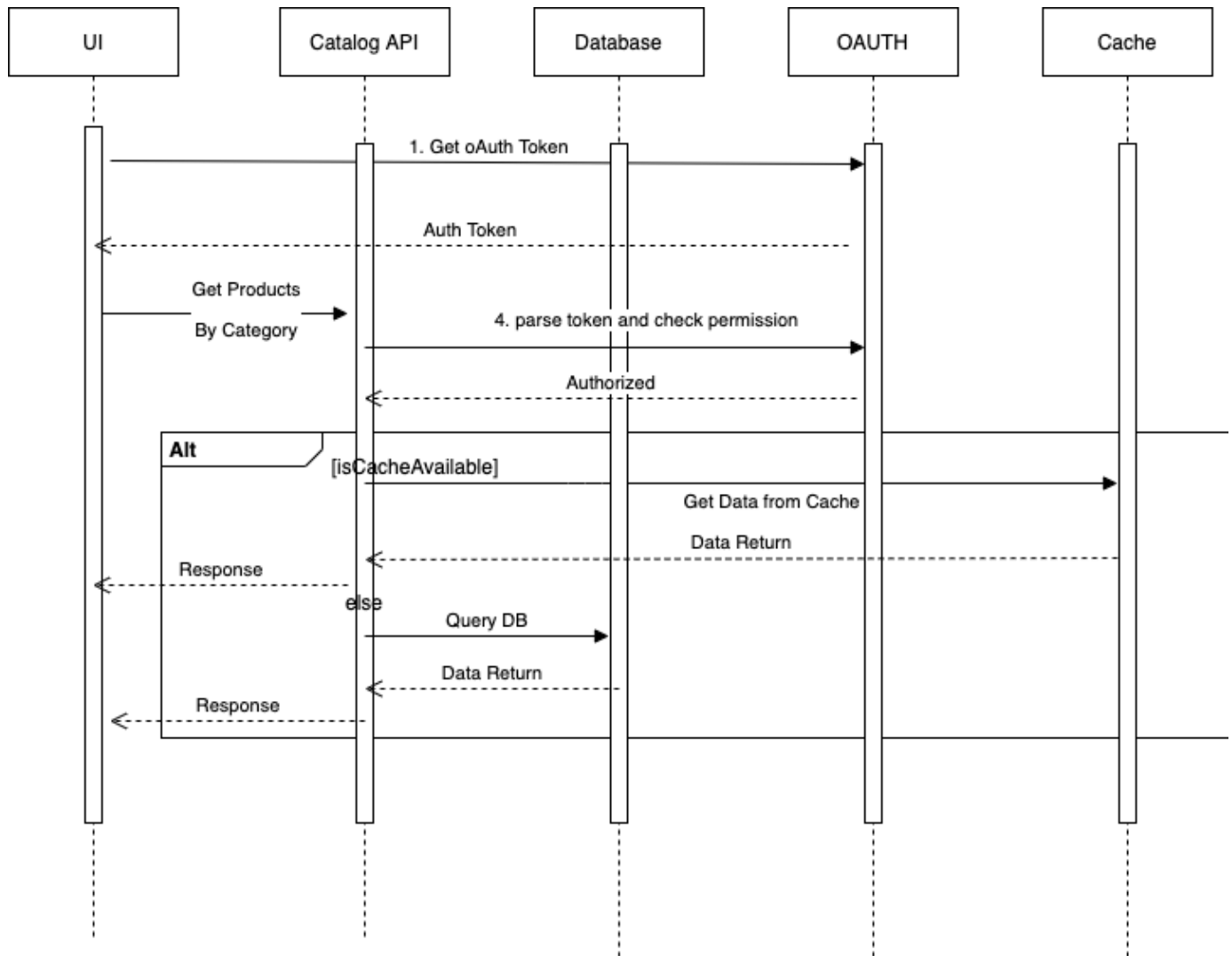
API

Category

Function	HTTP Method	End Point	Description
Add Category	POST	/category	Add new category in Database
Update Category	PUT	/category/{id}	Update an existing category in DB
Delete Category	DELETE	/category/{id}	Soft Delete existing category from DB
View Category	GET	/category/{id}	View Category by Category Id
List Categories	GET	/category	List all categories from Database Options : • Full • Root
List Products By Category Name	GET	/category/{categoryName}/products	List all products by category Name

Product

Function	HTTP Method	End Point	Description

Add Product	POST	/product	Add new Product in Database
Update Product	PUT	/product/{id}	Update an existing Prduct in DB
Delete Product	DELETE	/product/{id}	Soft Delete existing Product from DB
View Product	GET	/product/{id}	View Product by Product Id
List Products	GET	/products	List all products from Database
List Products By Category Name	GET	/product/{categoryName}/products	List all products by category Name
List Product Skus By Product Id	GET	/product/{id}/product-skus	List all product skus by product id from DB.

ProductSku

Function	HTTP Method	End Point	Description
Add Product Sku	POST	/product-sku	Add new ProductSku in Database
Update Product Sku	PUT	/product-sku/{id}	Update an existing Prduct in DB
Delete Product Sku	DELETE	/product-sku/{id}	Soft Delete existing Product from DB
View Product Sku	GET	/product-sku/{id}	View Product by Product Id

Database Design

category
- 🔑 id BIGINT
- ◇ created DATETIME
- ◇ createdby VARCHAR(255)
- ◇ entered DATETIME
- ◇ enteredby VARCHAR(255)
- ◇ isactive BIT(1)
- ◇ isfeatured BIT(1)
- ◇ isnavigationincluded BIT(1)
- ◇ name VARCHAR(255)
- ◇ parentid BIGINT
- ◇ url VARCHAR(255)
- ◇ urlkey VARCHAR(255)
- Indexes ▶

discount
- id BIGINT
- ◇ created DATETIME
- ◇ createdby VARCHAR(255)
- ◇ entered DATETIME
- ◇ enteredby VARCHAR(255)
- ◇ amount DECIMAL(19,2)
- ◇ percentage INT
- ◇ productId BIGINT
- ◇ productSkuId BIGINT
- Indexes ▶

media
- 🔑 id BIGINT
- ◇ created DATETIME
- ◇ createdby VARCHAR(255)
- ◇ entered DATETIME
- ◇ enteredby VARCHAR(255)
- ◇ alttext VARCHAR(255)
- ◇ url VARCHAR(255)
- ◇ product_id BIGINT
- ◇ product_sku_id BIGINT
- Indexes ▶

product_sku
- 🔑 id BIGINT
- ◇ created DATETIME
- ◇ createdby VARCHAR(255)
- ◇ entered DATETIME
- ◇ enteredby VARCHAR(255)
- ◇ baseunitprice VARCHAR(255)
- ◇ descritpion VARCHAR(255)
- ◇ discountid INT
- ◇ inventorytype VARCHAR(255)
- ◇ isactive TINYINT
- ◇ isavailable TINYINT
- ◇ issubscription TINYINT
- ◇ name VARCHAR(255)
- ◇ producttype VARCHAR(255)
- ◇ qtyavailable INT
- ◇ retailprice DECIMAL(19,2)
- ◇ saleprice DECIMAL(19,2)
- ◇ shortdesc VARCHAR(255)
- ◇ startdate DATETIME
- ◇ taxcode VARCHAR(255)
- ◇ wwsku VARCHAR(255)
- ◆ fulfillment_id BIGINT
- ◆ product_id BIGINT
- Indexes ▶

product
- 🔑 id BIGINT
- ◇ created DATETIME
- ◇ createdby VARCHAR(255)
- ◇ entered DATETIME
- ◇ enteredby VARCHAR(255)
- ◇ description VARCHAR(255)
- ◇ isactive BIT(1)
- ◇ isnew BIT(1)
- ◇ name VARCHAR(255)
- ◇ retailprice DECIMAL(19,2)
- ◇ saleprice DECIMAL(19,2)
- ◇ url VARCHAR(255)
- ◇ categoryid BIGINT
- ◇ discountid BIGINT
- Indexes ▶

fulfillment
- id BIGINT
- ◇ created DATETIME
- ◇ createdby VARCHAR(255)
- ◇ entered DATETIME
- ◇ enteredby VARCHAR(255)
- ◇ friendlyname VARCHAR(255)
- ◇ type VARCHAR(255)
- ◇ productSkuId BIGINT
- Indexes ▶

currency
- id BIGINT
- ◇ created DATETIME
- ◇ createdby VARCHAR(255)
- ◇ entered DATETIME
- ◇ enteredby VARCHAR(255)
- ◇ name VARCHAR(255)
- ◇ productId BIGINT
- Indexes ▶