Online/Web Shop

Interoperability

U.PORTO

FEUP **FACULDADE DE ENGENHARIA**
UNIVERSIDADE DO PORTO

Mestrado Integrado em Engenharia Informática e
Computação

Sistemas de Informação

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1 Information Architecture and its Web Services

In this section we show and explain each core view in relation to the mock-ups in which they appear. The core views are always surrounded by a **dark blue rectangle**, as the core view seldom matches the whole page. For each element of each core view, we will also show which Primavera Web Service (WS) implements that feature.

1.1 Homepage/Splash page

1.1.1 User and Business Goals:

1. Present the website to the user

2. Authenticate/Register on the website

3. Search for a Book

4. See popular/recent books

5. Go to a category page

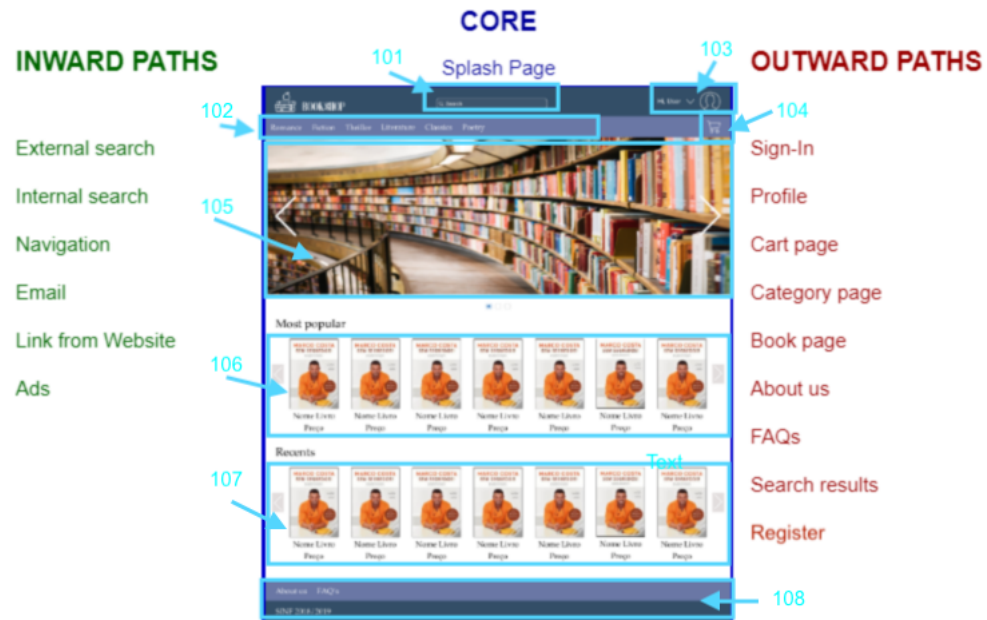6. Go to user's cart page

1.1.2 Core View:

Figure 1: Core View: V_001: splash page of the website

1.1.3   Elements of the core (in lighter blue on core view above) :

1. **101:** Search Bar

2. **102:** Navigation "by Categories" Bar

3. **103:** Profile Section (if not logged in: Login and Register "buttons" for modals, else Username and "avatar" with link for Profile Page)

4. **104:** Cart Button on Navigation Bar

5. **105:** Internal Teaser

6. **106:** Most Popular Section

7. **107:** Recent Books Section

8. **108:** Footer

1.1.4   Primavera Web Services Used for each element of the core:

1. **for 101:** WS06

2. **for 102:** WS05

3. **for 103:** WS01, WS02

4. **for 106:** WS07

5. **for 107:** WS08

1.2 Page for each book

1.2.1 User and Business Goals:

1. See all the information about the Product
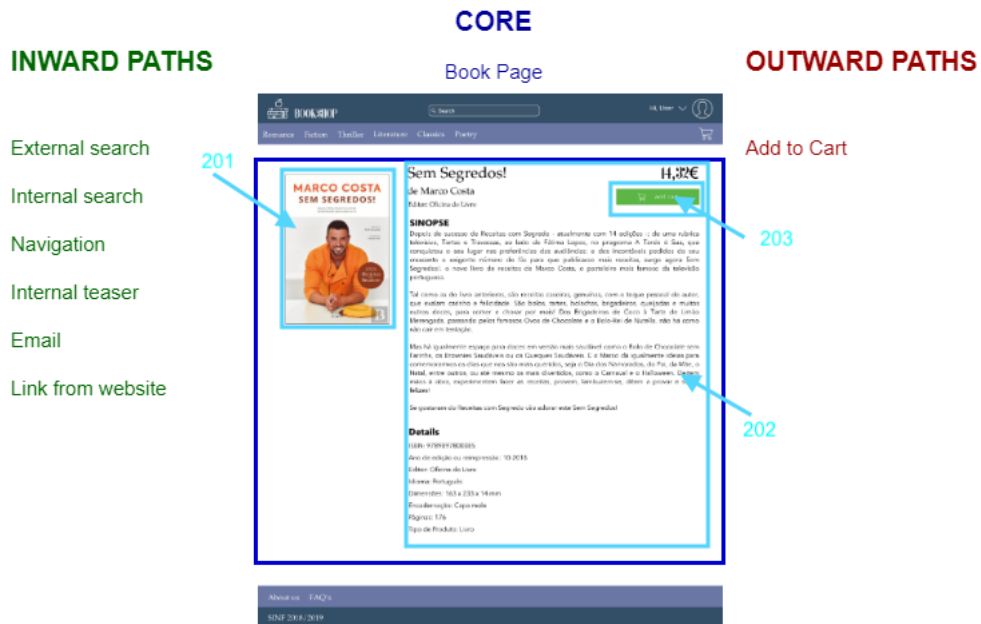
2. Allow the user to add the Book to the cart

Figure 2: Core View: V_002: Product(Book) page

1.2.2 Elements of the core (in lighter blue on core view above) :

1. **201:** Image of the Product

2. **202:** Specification of the Product

3. **203:** Add to Cart Button

1.2.3 Primavera Web Services Used for each element of the core:

1. **for 202:** WS04

1.3   Page for each category

1.3.1   User and Business Goals:

1. Search books by category
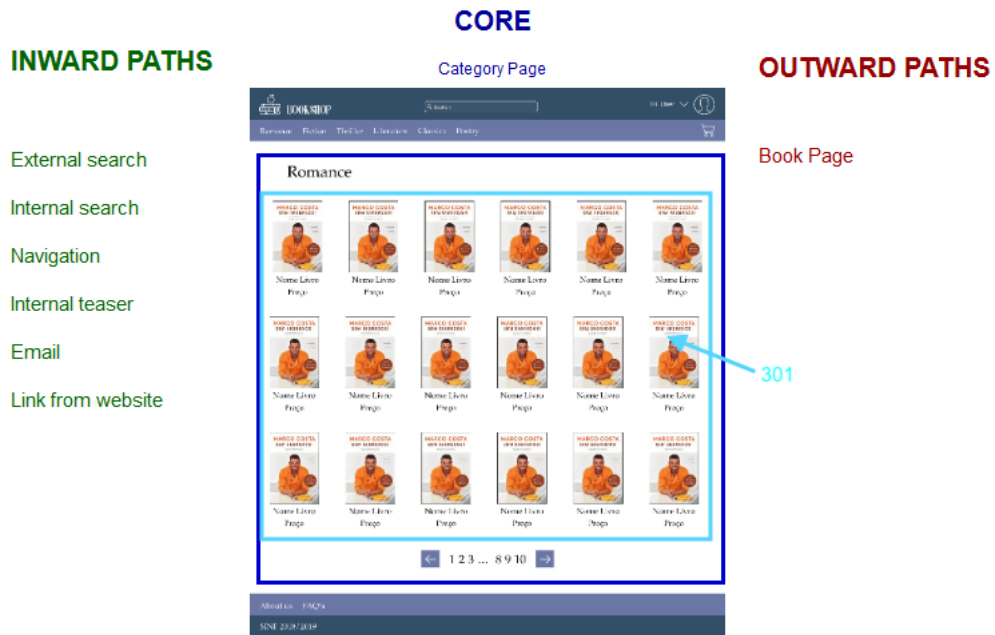
Figure 3: Core View: V_003: Category(Book) page

1.3.2   Elements of the core (in lighter blue on core view above) :

1. **301:** Grid showing books from the chosen category

1.3.3   Primavera Web Services Used for each element of the core:

1. **for 301:** WS05

1.4 Page for search results

1.4.1 User and Business Goals:

1. See the Product whose title relates to the search made by the user
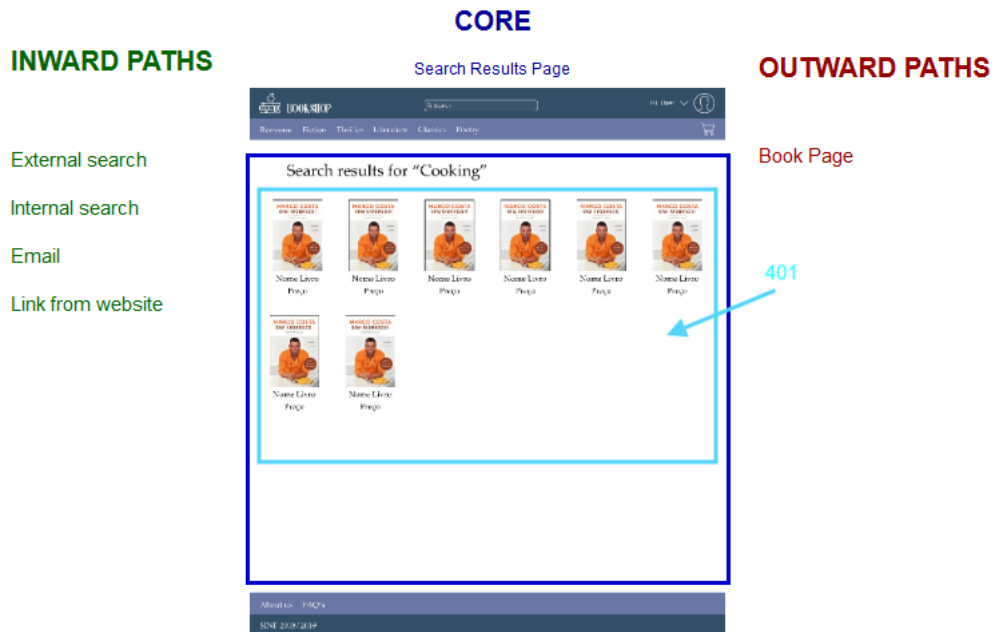
Figure 4: Core View: V_004: Search Results page

1.4.2 Elements of the core (in lighter blue on core view above) :

1. **401:** Grid showing the books that relate to the search made by the user (partial search by title)

1.4.3 Primavera Web Services Used for each element of the core:

1. **for 401:** WS06

1.5 Orders page

1.5.1 User and Business Goals:

1. See orders and their status and specifications
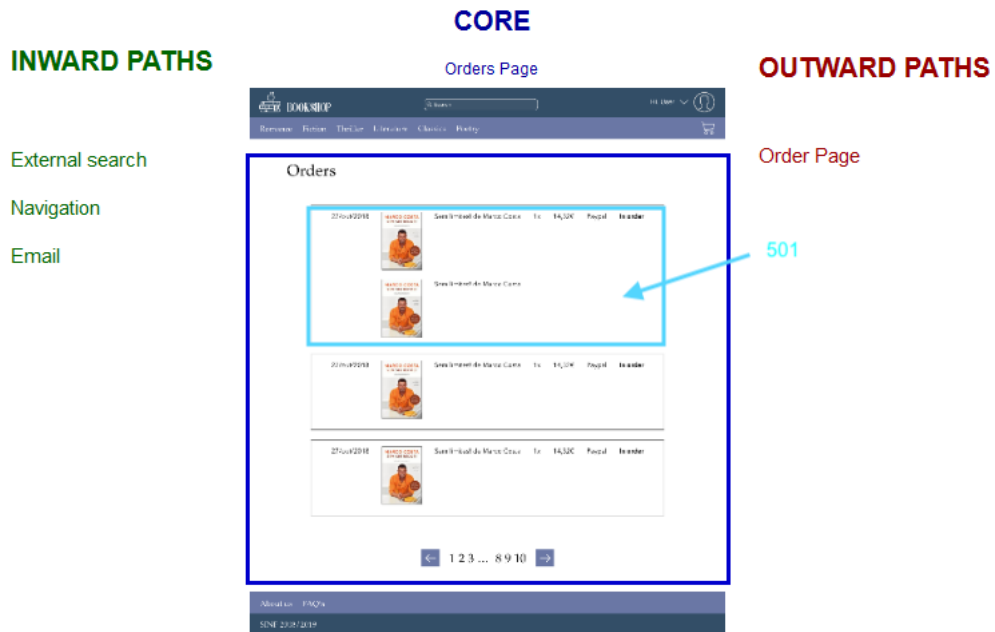
Figure 5: Core View: V_005: Orders page

1.5.2 Elements of the core (in lighter blue on core view above) :

1. **501:** Element holding the information about an individual order, with the total price, date and the book(s) chosen.

1.5.3 Primavera Web Services Used for each element of the core:

1. **for 501:** WS11, WS04

1.6 Specific Order page

1.6.1 User and Business Goals:

1. See a specific order and all information related to it

2. Access receipt of the order
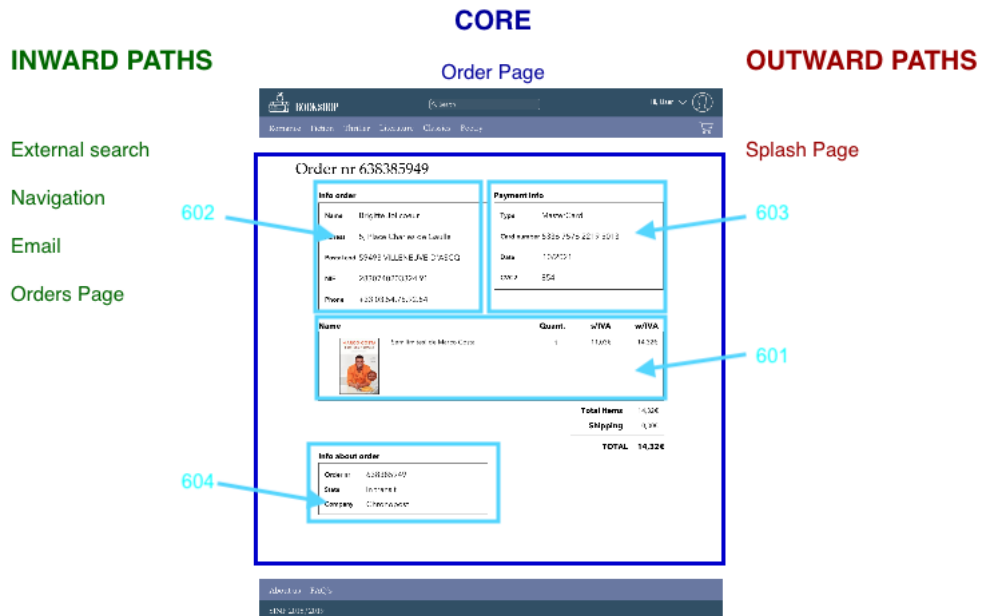
Figure 6: Core View: V_006: Specific Order page

1.6.2 Elements of the core (in lighter blue on core view above) :

1. **601:** Book(s) chosen for the order

2. **602:** User related information

3. **603:** Payment information

4. **604:** Order information

1.6.3 Primavera Web Services Used for each element of the core:

1. **for 601:** WS04

2. **for 602:** WS02

3. **for 603:** WS11

4. **for 604:** WS11

1.7   Cart page

1.7.1   User and Business Goals:

1. Review all the order details

2. Make an order
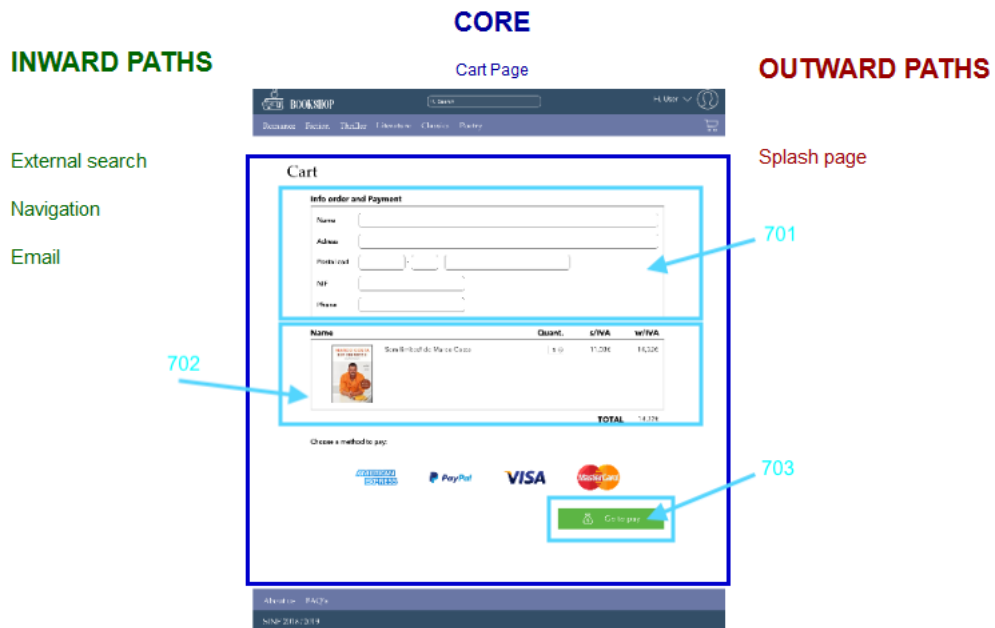
Figure 7: Core View: V_007: Cart Page

1.7.2   Elements of the core (in lighter blue on core view above) :

1. **701:** Order details form

2. **702:** Order summary

3. **703:** Place the order Button

1.7.3   Primavera Web Services Used for each element of the core:

1. **for 702:** WS04

2. **for 703:** WS09, WS10

1.8 Profile page

1.8.1 User and Business Goals:

1. Access my profile information

2. Change profile information
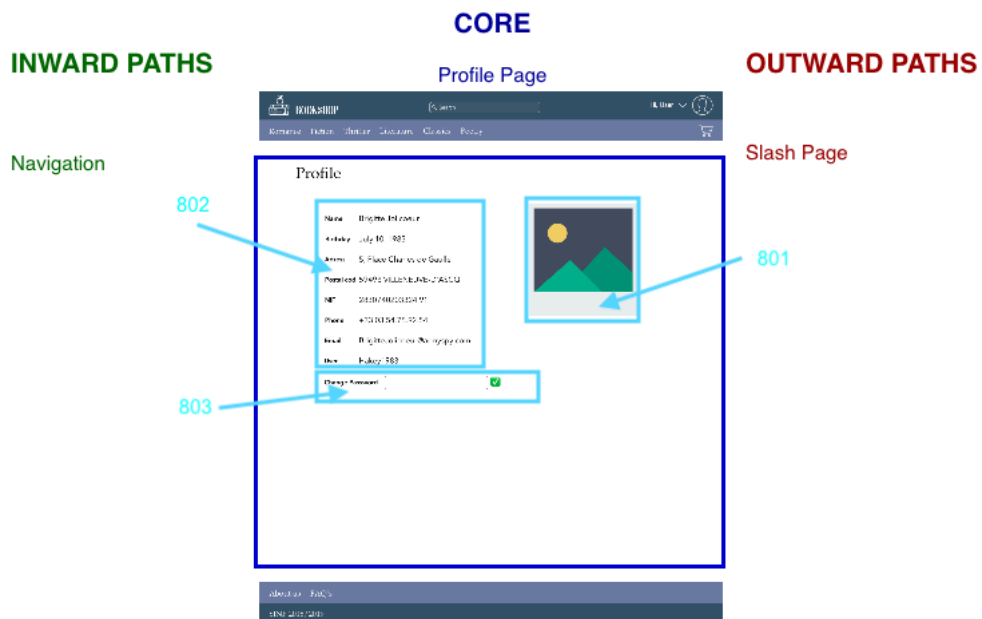
Figure 8: Core View: V_008: Profile Page

1.8.2 Elements of the core (in lighter blue on core view above) :

1. **801:** Image of Profile

2. **802:** Information of Profile

3. **803:** Change Password Box

1.8.3 Primavera Web Services Used for each element of the core:

1. **for 802:** WS02

2. **for 803:** WS03

2 Web Services

Web Service	WS01
Description	Creates a new user/client
Related Core Views	V_001
Route	Base/Clientes/Atualiza

Input example	```
	{
	    "Cliente": "1",
	    "Nome": "Manfred Reubens",
	    "Morada": "Praceta Conde Arnoso 60",
	    "CodigoPostal": "2640-467",
	    "Telefone": "6705966965",
	    "NumContribuinte": "64287048860",
	    "Pais": "PT",
	    "Moeda": "EUR"
	}
	``

Expected Output	HTTP 204

Web Service	WS02
Description	Gets the relevant information of an user/client
Related Core Views	V_001, V_006, V_008
Route	Base/Clientes/Edita/{cliente_id}
Input example	cliente_id = "TIAGO" (parameter in the route)

Expected Output	```json
	{
	    "CodigoTabLog": "Cliente",
	    "ChaveLog": "Cliente",
	    "EstadoBE": "",
	    "Cliente": "TIAGO",
	    "Nome": "Tiago Santos",
	    "Descricao": "",
	    "Morada": "Rua Eng. Farinas de Almeida, 313, 4º esq",
	    (...)
	    "CamposUtil": [
	        {
	            "Conteudo": "ValorValoremailxyz@gmail.com",
	            "Nome": "CDU_email",
	            "Valor": "emailxyz@gmail.com",
	            "Objecto": null,
	            "Tipo": 1,
	            "ChaveLog": "Nome",
	            "EstadoBE": "",
	            "TipoSimplificado": 1
	        },
	        {
	            "Conteudo": "ValorValor03AC674216F3E15C761EE1A5E255F067953623C8B388B4459E13F978D7C846F4",
	            "Nome": "CDU_password_hash",
	            "Valor": "03AC674216F3E15C761EE1A5E255F067953623C8B388B4459E13F978D7C846F4",
	            "Objecto": null,
	``

```
            "Tipo": 1,
            "ChaveLog": "Nome",
            "EstadoBE": "",
            "TipoSimplificado": 1
        }
    ],
    (...)
}
```

Web Service	WS03
Description	Updates the information of an user/client
Related Core View s	V_008
Route	Base/Clientes/Actualiza
| Input example | ```
//Input is the same as the output of WS02, but with some changed attributes,
//such as Morada, CDU_email and CDU_password_hash
{
    "CodigoTabLog": "Cliente",
    "ChaveLog": "Cliente",
    "EstadoBE": "",
    "Cliente": "TIAGO",
    "Nome": "Tiago Santos",
    "Descricao": "",
    "Morada": "Nova Morada, 451",
    (...)
    "CamposUtil": [
        (...)
        {
            "Conteudo": "ValorValornewemail@gmail.com",
            "Nome": "CDU_email",
            "Valor": "newemail@gmail.com",
            "Objecto": null,
            "Tipo": 1,
            "ChaveLog": "Nome",
            "EstadoBE": "",
            "TipoSimplificado": 1
        },
        {
            "Conteudo": "ValorValor253C2E786C2414DCAEC8DBF11DF515B5075371454B93A5687D24D96DDBF3B939",
            "Nome": "CDU_password_hash",
            "Valor": "253C2E786C2414DCAEC8DBF11DF515B5075371454B93A5687D24D96DDBF3B939",
            "Objecto": null,
            "Tipo": 1,
            "ChaveLog": "Nome",
            "EstadoBE": "",
            "TipoSimplificado": 1
        }
    ],
    (...)
}
``` |
| Expected Output | HTTP 204 |

Web Service	WS04
Description	Gets all the relevant information of a book
Related Core Views	V_004, V_005, V_006, V_007
Route	Administrador/Consulta
| Input example | ```sql
-- select the relevant info of book "B0001"

Select Descricao, CDU_Autor, CDU_Sinopse, CDU_ISBN,
CDU_Editora, CDU_Capa, CDU_Paginas, CDU_Ano, CDU_Dimensoes,
Familia, CDU_Idioma, PVP1
from Artigo, ArtigoMoeda
where Artigo.Artigo = 'B0001' and Artigo.Artigo = ArtigoMoeda.Artigo
``` |
| Expected Output | ```json
{
    "DataSet": {
        "Table": [
            {
                "Descricao": "A Brief History Of Time",
                "CDU_Autor": "Stephen Hawking",
                "CDU_Sinopse": "A landmark volume in science writing by one of the great minds of our t
                "CDU_ISBN": "0857501003",
                "CDU_Editora": "Transworld Publishers Ltd",
                "CDU_Capa": "Paperback",
                "CDU_Paginas": 272,
                "CDU_Ano": "05 Feb 2015",
                "CDU_Dimensoes": "127 x 198 x 17mm",
                "Familia": "FICTION",
                "CDU_Idioma": English,
                "PVP1": 25.99
            }
        ]
    },
    "Query": "System.Data.SqlClient.SqlCommand"
}
``` |

Web Service	WS05
Description	Gets a set of books that belong to the specified category
Related Core Views	V_001, V_004
Route	Administrador/Consulta
| Input example | ```sql
-- select all books that belong to the category "IT"

Select Artigo.Artigo, Descricao, PVP1, CDU_Autor
from Artigo, ArtigoMoeda
where Familia = 'IT' and Artigo.Artigo = ArtigoMoeda.Artigo
``` |
|  | ```json
{
``` |

| Expected Output | ```json
        "DataSet": {
            "Table": [
                {
                    "Artigo": "B0003",
                    "Descricao": "Introdução à Programação em Java",
                    "PVP1": 20,
                    "CDU_Autor": "António Manuel Adrego da Rocha"
                },
                {
                    "Artigo": "B0004",
                    "Descricao": "Introdução à programação em C",
                    "PVP1": 25,
                    "CDU_Autor": "António Manuel Adrego da Rocha"
                }
            ]
        },
        "Query": "System.Data.SqlClient.SqlCommand"
    }
``` |

Web Service	WS06
Description	Searches books by title, including partial strings
Related Core Views	V_006, V_001
Route	Administrador/Consulta
| Input example | ```sql
-- select all books with "Intro" in the title

"Select Artigo.Artigo, Descricao, CDU_Autor, PVP1
from Artigo, ArtigoMoeda
where Descricao like '%Intro%' and Artigo.Artigo = ArtigoMoeda.Artigo"
``` |
| Expected Output | ```json
{
    "DataSet": {
        "Table": [
            {
                "Artigo": "B0003",
                "Descricao": "Introdução à Programação em Java",
                "CDU_Autor": "António Manuel Adrego da Rocha",
                "PVP1": 20
            },
            {
                "Artigo": "B0004",
                "Descricao": "Introdução à programação em C",
                "CDU_Autor": "António Manuel Adrego da Rocha",
                "PVP1": 25
            }
        ]
    },
    "Query": "System.Data.SqlClient.SqlCommand"
}
``` |

Web Service	WS07
Description	Gets a list of books ordered by existing stock, except books with no stock
Related Core Views	V_001

Route	Administrador/Consulta
| Input example | ```
Select Artigo.Artigo, Descricao, PVP1, CDU_Autor, STKActual
from Artigo, ArtigoMoeda
where Artigo.Artigo = ArtigoMoeda.Artigo and STKActual > 0 order by STKActual
``` |
| Expected Output | ```
{
    "DataSet": {
        "Table": [
            {
                "Artigo": "B0003",
                "Descricao": "Introdução à Programação em Java",
                "PVP1": 20,
                "CDU_Autor": "António Manuel Adrego da Rocha",
                "STKActual": 1
            },
            {
                "Artigo": "B0005",
                "Descricao": "Foi Sem Querer Que Te Quis",
                "PVP1": 12,
                "CDU_Autor": "Raul Minh'alma ",
                "STKActual": 6
            },
            {
                "Artigo": "B0004",
                "Descricao": "Introdução à programação em C",
                "PVP1": 25,
                "CDU_Autor": "António Manuel Adrego da Rocha",
                "STKActual": 15
            },
            {
                "Artigo": "B0002",
                "Descricao": "Romeu e Julieta",
                "PVP1": 25,
                "CDU_Autor": "William Shakespeare ",
                "STKActual": 22
            },
            {
                "Artigo": "B0001",
                "Descricao": "A Brief History Of Time",
                "PVP1": 25.99,
                "CDU_Autor": "Stephen Hawking",
                "STKActual": 30
            }
        ]
    },
    "Query": "System.Data.SqlClient.SqlCommand"
}
``` |

Web Service	WS08
Description	Gets a list of books ordered by the last date they were updated (first is the most recent)
Related Core Views	V_008
Route	Administrador/Consulta
| Input example | ```
Select Artigo.Artigo, Descricao, PVP1, CDU_Autor, DataUltimaActualizacao
from Artigo, ArtigoMoeda
where Artigo.Artigo = ArtigoMoeda.Artigo order by DataUltimaActualizacao desc
``` |

```json
{
    "DataSet": {
        "Table": [
            {
                "Artigo": "B0003",
                "Descricao": "Introdução à Programação em Java",
                "PVP1": 20,
                "CDU_Autor": "António Manuel Adrego da Rocha",
                "DataUltimaActualizacao": "2018-12-02T02:04:21"
            },
            {
                "Artigo": "B0005",
                "Descricao": "Foi Sem Querer Que Te Quis",
                "PVP1": 12,
                "CDU_Autor": "Raul Minh'alma ",
                "DataUltimaActualizacao": "2018-12-02T02:03:39"
            },
            {
                "Artigo": "B0004",
                "Descricao": "Introdução à programação em C",
                "PVP1": 25,
                "CDU_Autor": "António Manuel Adrego da Rocha",
                "DataUltimaActualizacao": "2018-12-02T01:59:40"
            },
            {
                "Artigo": "B0002",
                "Descricao": "Romeu e Julieta",
                "PVP1": 25,
                "CDU_Autor": "William Shakespeare ",
                "DataUltimaActualizacao": "2018-12-02T01:50:31"
            },
            {
                "Artigo": "B0001",
                "Descricao": "A Brief History Of Time",
                "PVP1": 25.99,
                "CDU_Autor": "Stephen Hawking",
                "DataUltimaActualizacao": "2018-12-02T01:46:43"
            }
        ]
    },
    "Query": "System.Data.SqlClient.SqlCommand"
}
```

Web Service	WS09
Description	Makes a purchase of the specified items, producing an invoice
Related Core Views	V_007
Route	Administrador/Consulta
Input example	

```json
{
  "Linhas": [
    {
      "Artigo": "B0001",
      "Quantidade": "1"
    },
    {
      "Artigo": "B0002",
      "Quantidade": "1"
    }
  ],
  "Tipodoc": "FAR",
  "Serie": "A",
```

```
        "Entidade": "C0001",
        "TipoEntidade": "C",
        "DataDoc":"12/11/2018",
        "DataVenc":"12/12/2018"
    }
```

Expected Output	true

Web Service	WS10
Description	Makes a purchase of the specified items, producing an ECL document
Related Core Views	V_007
Route	Vendas/Docs/CreateDocument

Input example	<pre>{
	  "Linhas": [
	    {
	      "Artigo": "B0001",
	      "Quantidade": "1"
	    },
	    {
	      "Artigo": "B0002",
	      "Quantidade": "1"
	    }
	  ],
	  "Tipodoc": "ECL",
	  "Serie": "A",
	  "Entidade": "C0001",
	  "TipoEntidade": "C",
	  "DataDoc":"12/11/2018",
	  "DataVenc":"12/12/2018"
	}</pre>

Expected Output	true

Web Service	WS11
Description	Gets the specified document
Related Core Views	V_005, V_006
Route	Vendas/Docs/Edita/000/{type}/{entity_type}/{id}
Input example	type = FAR entity_type = A id = 1 (parâmetros da rota)

	<pre>{
	    "IDDiarioCaixa": "",
	    "OrigemPOS": false,
	    (...)
	    "PropExcluirLog": "",
	    "Linhas": [
	        {
	            "ChaveLog": "Artigo,Armazem,Lote,TipoLinha",
	            "EstadoBE": "",</pre>

Expected
Output

```json
                        (...)
                        "IntrastatValorLiq": 0,
                        "NumLinDocOriginal": 0,
                        "CamposUtil": [
                            {
                                "Conteudo": "ValorValor",
                                "Nome": "CDU_LinVar1",
                                (...)
                                "EstadoBE": "",
                                "TipoSimplificado": 1
                            },
                            (...)
                        ],
                        (...)
                        "BaseIncidencia": 0,
                        "RegraCalculoIncidencia": 0,
                        "DadosAdiantamento": {
                            "Conteudo": "DifArredondamentoMAlt0DifArredondamentoMBase0DifCambioMAlt0DifCambioMBase0
                            "MoedaDocOrig": "",
                            (...)
                        },
                        "DadosImpostoSelo": {
                            "Ano": 0,
                            "Selo": "",
                            (...)
                        },
                        "ValorLiquidoDesconto": 0,
                        "IvaValorDesconto": 0,
                        (...)
                        "ValorProcessoAnosSeguintes": 0,
                        "AbvtApl": "VND"
                    }
                ],
                "Retencoes": [],
                "ResumoIva": [
                    {
                        "ChaveLog": "Filial,Serie,Tipodoc,NumDoc,CodIva",
                        "EstadoBE": "",
                        (...)
                        "ValorDesconto": 0,
                        "AbvtApl": "BAS"
                    }
                ],
                "ID": "8cf01dd8-f667-11e8-b6a5-08002756714a",
                "IDCabecMovCbl": "a5f9744c-f667-11e8-b6a5-08002756714a",
                (...)
                "ValorEntregueCambio": 0,
                "EmModoEdicao": true,
                "CamposUtil": [
                    {
                        "Conteudo": "ValorValor",
                        "Nome": "CDU_CabVar1",
                        (...)
                        "EstadoBE": "",
                        "TipoSimplificado": 1
                    },
                    (...)
                ],
                (...)
                "ContratoFactoring": "",
                "ATDocCodeID": "",
                "CargaDescarga": {
                    (...)
                    "ATDocCodeID": "",
                    "AbvtApl": "BAS"
                },
                "EntidadeDescarga": "C0001",
                "LocalDescarga": "V/ Morada",
                (...)
                "HoraDefinida": false,
                "AbvtApl": "VND"
            }
```