Web Service	WS01
Description	Creates a new user/client
Related Core Views	V_001
Route	Base/Clientes/Atualiza
Input example	<pre>{ "Cliente": "1", "Nome": "Manfred Reubens", "Morada": "Praceta Conde Arnoso 60", "CodigoPostal1: "2640-467", "Telefone": "6705966965", "NumContribuinte": "64287048860", "Pais": "PT", "Moeda": "EUR" }</pre>
Expected Output	HTTP 204

```
Web
                WS02
Service
Description
                Gets the relevant information of an user/client
Related
Core
                V_001, V_006, V_008
View s
Route
                Base/Clientes/Edita/{cliente_id}
Input
                   cliente_id = "TIAGO" (parameter in the route)
example
                         "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",
Expected
                                  "EstadoBE": "",
Output
                                  "TipoSimplificado": 1
                             },
                                  "Conteudo": "ValorValor03AC674216F3E15C761EE1A5E255F067953623C8B388B4459E13F978D7C846F4",
                                  "Nome": "CDU_password_hash",
                                  "Valor": "03AC674216F3E15C761EE1A5E255F067953623C8B388B4459E13F978D7C846F4",
                                  "Objecto": null,
```

```
Web
                WS03
Service
Description
                Updates the information of an user/client
Related
Core
                V_008
View s
Route
                Base/Clientes/Actualiza
                   //{\rm Input} is the same as the output of WSO2, 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,
Input
                               "Tipo": 1,
example
                                "ChaveLog": "Nome",
                                "EstadoBE": "",
                                "TipoSimplificado": 1
                           },
                                "Conteudo": "ValorValor253C2E786C2414DCAEC8DBF11DF515B5075371454B93A5687D24D96DDBF3B939",
                                "Nome": "CDU_password_hash",
                                "Valor": "253C2E786C2414DCAEC8DBF11DF515B5075371454B93A5687D24D96DDBF3B939",
                                "Objecto": null,
                                "Tipo": 1,
                                "ChaveLog": "Nome",
                                "EstadoBE": "",
                                "TipoSimplificado": 1
                       ],
                       (...)
                   }
Expected
                HTTP 204
Output
```

```
Web
                  WS04
  Service
 Description
                  Gets all the relevant information of a book
  Related
                  V_004, V_005, V_006, V_007
  Core
  View s
  Route
                  Administrador/Consulta
                     -- select the relevant info of book "B0001"
                     Select Descricao, CDU_Autor, CDU_Sinopse, CDU_ISBN,
  Input
                     CDU_Editora, CDU_Capa, CDU_Paginas, CDU_Ano, CDU_Dimensoes,
                     Familia, CDU_Idioma, PVP1
  example
                     from Artigo, ArtigoMoeda
                     where Artigo.Artigo = 'B0001' and Artigo.Artigo = ArtigoMoeda.Artigo
                     {
                         "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",
  Expected
                                      "CDU_Paginas": 272,
                                      "CDU_Ano": "05 Feb 2015",
  Output
                                      "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	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
	{

```
"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
                          Searches books by title, including partial strings
Description
Related Core Views
                          V_006, V_001
Route
                          Administrador/Consulta
                              -- select all books with "Intro" in the title
                              "Select Artigo.Artigo, Descricao, CDU_Autor, PVP1
Input example
                              from Artigo, ArtigoMoeda
                              where Descricao like '%Intro%' and Artigo.Artigo = ArtigoMoeda.Artigo"
                                  "DataSet": {
                                      "Table": [
                                               "Artigo": "B0003",
                                               "Descricao": "Introdução à Programação em Java",
"CDU_Autor": "António Manuel Adrego da Rocha",
                                              "PVP1": 20
                                          },
Expected Output
                                               "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 smallest price
Related Core Views	V_001

```
Route
                         Administrador/Consulta
                            Select Artigo.Artigo, Descricao, PVP1, CDU_Autor
                            from Artigo, ArtigoMoeda
Input example
                            where Artigo.Artigo = ArtigoMoeda.Artigo order by PVP1
                                "DataSet": {
                                    "Table": [
                                        {
                                           "Artigo": "B0026",
                                            "Descricao": "Keep Quiet",
                                            "PVP1": 6.01,
                                           "CDU_Autor": "Lisa Scottoline",
"STKActual": 0
                                       },
                                            "Artigo": "B0024",
                                            "Descricao": "Murder on the Orient Express",
                                            "PVP1": 6.06,
                                            "CDU_Autor": "Agatha Christie",
Expected Output
                                           "STKActual": 0
                                      },
                                            "Artigo": "B0022",
                                           "Descricao": "Heroes Are My Weakness",
                                           "PVP1": 7.31,
"CDU_Autor": "Susan Elizabeth Phillips",
                                           "STKActual": 0
                                       (...)
                                    ]
                                "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
	{ "DataSet": { "Table": [

```
"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",
Expected Output
                                           "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 ECL document on the ERP
Related Core Views	V_007
Route	Administrador/Consulta
Input example	<pre>{ "Linhas": [</pre>
Expected Output	true

(WS10 has become deprecated in the final version of the project, as it turned out to not be needed)

```
Web
               WS11
Service
Description
               Gets the specified ECL document
Related
Core
               V_005, V_006
View s
Route
               Vendas/Docs/Edita/000/ECL/A/{id}
Input
               id = 1 (parâmetros da rota)
example
                  {
                     "IDDiarioCaixa": "",
                     "OrigemPOS": false,
                     (...)
                     "PropExcluirLog": "",
                     "Linhas": [
                         {
                             "ChaveLog": "Artigo,Armazem,Lote,TipoLinha",
                             "EstadoBE": "",
                             (...)
                             "IntrastatValorLiq": 0,
                             "NumLinDocOriginal": 0,
                             "CamposUtil": [
                                {
                                    "Conteudo": "ValorValor",
                                    "Nome": "CDU_LinVar1",
                                    (...)
                                    "EstadoBE": "",
                                    "TipoSimplificado": 1
                                },
                                (...)
                             ],
                             (...)
                             "BaseIncidencia": 0,
                             "RegraCalculoIncidencia": 0,
                             "DadosAdiantamento": {
                                "MoedaDocOrig": "",
                                (...)
                             "DadosImpostoSelo": {
                                "Ano": 0,
                                "Selo": "",
                                (...)
                             },
                             "ValorLiquidoDesconto": 0,
                             "IvaValorDesconto": 0,
                             (...)
                             "ValorProcessoAnosSeguintes": 0,
                             "AbvtApl": "VND"
                         }
Expected
                     ],
Output
                     "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"
                    }
<
```

Web Service WS12 Description Gets information about the ECL documents Related Core Views V_005, V_006 Route Base/Series/ListaSeries/V/ECL/false ["CodigoTabLog": "Series", "ChaveLog": "Documento,Serie",
"EstadoBE": "", "Documento": "ECL", "Serie": "A", "Ordem": 1, "Descricao": "Série A", Input example "SerieInactiva": false, (...) "Interna": false, "eGarAbreDocumento": false, "eGAR_Comunica": false, "AbvtApl": "BAS" } HTTP 200 **Expected Output**