



Filter and search in FHIR mobile pact script and doc mapping with C# REST API enquire

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diff_between_CS_REST_API_and_FHIR_API.md 82.66 KiB

Difference between C# REST API and FHIR API

Context

This is based on the default DB provisioning (full demo). It can be reproduced with the script `cs_rest_api_mobile_pact.sh` and `fhir_mobile_pact.sh` that you can find in the project [openimis-dev_environment](#).

Authentication

C# REST API

It's a POST HTTP request at `/rest/api/login` with:

```
{
  "userName": "<USERNAME>",
  "password": "<PASSWORD>"
}
```

In return, you receive the JWT in a JSON HTTP response:

```
{
  "access_token": "<TOKEN>",
  "expires_on": "2023-05-22T12:46:58.2876845+00:00"
}
```

The token is then passed in the following HTTP header `Authorization: Bearer <token>` to HTTP request protected endpoints.

GraphQL

It's a POST HTTP request at `/api/graphql` with:

```
{
  "query": "mutation authenticate($username: String!, $password: String!) {tokenAuth(user
  "variables":
  {
    "username": "<USERNAME>",
    "password": "<PASSWORD>"
  }
}
```

In return, you receive the JWT in a cookie with `JWT-refresh-token` and `JWT`. The session is then saved in the cookie, and the cookie has to be used to HTTP request protected endpoints, including the FHIR ones.

FHIR API

It's a POST HTTP request at `/api/api_fhir_r4/` with:

```
{
  "username": "<USERNAME>",
  "password": "<PASSWORD>"
}
```

In return, you receive the JWT in a JSON HTTP response:

```
{"token": "<TOKEN>", "exp": 1686830552}
```

The token is then passed in the following HTTP header `Authorization: Bearer <token>` to HTTP request protected endpoints.

Claim administrators / Practitioners

C# REST API

It's a GET HTTP request at `/rest/api/claim/GetClaimAdmins`. It returns a JSON payload that contains the list of administrators:

```
{
  "error_occured": false,
  "claim_admins":
  [
    {
      "lastName": "Rushila",
      "otherNames": "Dani",
      "claimAdminCode": "JMDP0011",
      "hfCode": "JMDP001"
    }
  ]
}
```

FHIR API

It's a GET HTTP request at `/api/api_fhir_r4/Practitioner/`. It returns a list of practitioners, including the claim administrators:

```
{
  "resourceType": "Bundle",
  "type": "searchset",
  "total": 29,
  "link":
  [
    {
      "relation": "self",
      "url": "https%3A%2F%2Fdemo.openimis.org%2Fapi%2Fapi_fhir_r4%2FPractitioner%2F"
    },
    {
      "relation": "next",
      "url": "https%3A%2F%2Fdemo.openimis.org%2Fapi%2Fapi_fhir_r4%2FPractitioner%2F%3"
    }
  ],
  "entry":
  [
    {
      "fullUrl": "https://demo.openimis.org/api/api_fhir_r4/Practitioner/16F01D1E-281",
      "resource":
      {
        "resourceType": "Practitioner",

```

```
"id": "16F01D1E-2814-4676-BE06-9AEAD8B40922",
"identifier":
[
  {
    "type":
    {
      "coding":
      [
        {
          "system": "https://openimis.github.io/openimis_fhir_r4_
          "code": "UUID"
        }
      ]
    },
    "value": "16F01D1E-2814-4676-BE06-9AEAD8B40922"
  },
  {
    "type":
    {
      "coding":
      [
        {
          "system": "https://openimis.github.io/openimis_fhir_r4_
          "code": "Code"
        }
      ]
    },
    "value": "JMDP0011"
  }
],
"name":
[
  {
    "use": "usual",
    "family": "Rushila",
    "given":
    [
      "Dani"
    ]
  }
],
"birthDate": "1979-10-09",
"qualification":
[
  {
    "code":
    {
      "coding":
      [
        {
          "system": "https://openimis.github.io/openimis_fhir_r4_
          "code": "CA",
          "display": "Claim Administrator"
        }
      ]
    }
  }
]
}
```

```
    }
  ]
}
```

References

- [Wiki](#)
- [FHIR Doc](#)

Mapping

We can do the following mapping:

C# REST API	FHIR API
<code>.claim_admins[0].lastName</code>	<code>.entry[0].resource.name[0].family</code>
<code>.claim_admins[0].otherNames</code>	<code>.entry[0].resource.name[0].given</code>
<code>.claim_admins[0].claimAdminCode</code>	<code>.entry[0].resource.identifier[] select(.type.coding[].code == "Code") .value</code>
<code>.claim_admins[0].hfCode</code>	Not Found

Controls

C# REST API

It's a GET HTTP request at `/claim/Controls`. It returns a JSON payload that contains the list of form fields and their visibility and presence property (i.e. optional, mandatory, required, hidden):

```
{
  "error_occured": false,
  "controls":
  [
    {
      "fieldName": "Age",
      "adjustibility": "M",
      "usage": "Search Insurance Number/Enquiry"
    }
  ]
}
```

FHIR API

None

Mapping

It seems there isn't any correspondence in the FHIR API, as such there isn't any mapping.

Diagnoses, Items, and Services

C# REST API

It's a POST HTTP request at `/rest/api/claim/GetDiagnosesServicesItems` with:

```
{
  "last_update_date": "2000-01-01"
}
```

It return a JSON payload that contains the list of diagnoses, services, and items:

```
{
```

```

"diagnoses":
[
  {
    "code": "A00",
    "name": "Cholera"
  }
],
"services":
[
  {
    "code": "M1",
    "name": "OBG Cervical Cerclage - Shrodikar",
    "price": "21000.00"
  }
],
"items":
[
  {
    "code": "0001",
    "name": "ACETYLSALICYLIC ACID (ASPIRIN) TABS 300MG",
    "price": "10.00"
  }
]
}

```

FHIR API

There are 3 GET HTTP requests:

1. /api/api_fhir_r4/ActivityDefinition/ returns the list of services,
2. /api/api_fhir_r4/CodeSystem/diagnosis/ returns the list of diagnosis code, and
3. /api/api_fhir_r4/Medications/ returns the list of items,

Services or Activity Definitions

```

{
  "resourceType": "Bundle",
  "type": "searchset",
  "total": 81,
  "link":
  [
    {
      "relation": "self",
      "url": "https%3A%2F%2Fdemo.openimis.org%2Fapi%2Fapi_fhir_r4%2FActivityDefinitio"
    },
    {
      "relation": "next",
      "url": "https%3A%2F%2Fdemo.openimis.org%2Fapi%2Fapi_fhir_r4%2FActivityDefinitio"
    }
  ],
  "entry":
  [
    {
      "fullUrl": "https://demo.openimis.org/api/api_fhir_r4/ActivityDefinition/FC7AB6"
      "resource":
      {
        "resourceType": "ActivityDefinition",
        "id": "FC7AB64C-033E-45D3-839E-DB1E4B93611F",
        "extension":
        [

```

```

    {
      "url": "https://openimis.github.io/openimis_fhir_r4_ig/StructureDef
      "valueMoney":
      {
        "value": 21000.0,
        "currency": "$"
      }
    },
    {
      "url": "https://openimis.github.io/openimis_fhir_r4_ig/StructureDef
      "valueCodeableConcept":
      {
        "coding":
        [
          {
            "system": "https://openimis.github.io/openimis_fhir_r4_
            "code": "D",
            "display": "Day of stay"
          }
        ],
        "text": "Day of stay"
      }
    }
  ],
  "identifier":
  [
    {
      "type":
      {
        "coding":
        [
          {
            "system": "https://openimis.github.io/openimis_fhir_r4_
            "code": "UUID"
          }
        ]
      },
      "value": "FC7AB64C-033E-45D3-839E-DB1E4B93611F"
    },
    {
      "type":
      {
        "coding":
        [
          {
            "system": "https://openimis.github.io/openimis_fhir_r4_
            "code": "Code"
          }
        ]
      },
      "value": "M1"
    }
  ],
  "name": "M1",
  "title": "OBG Cervical Cerclage - Shrodikar",
  "status": "active",
  "date": "2017-01-01T00:00:00",
  "useContext":
  [

```

```

{
  "code":
  {
    "system": "http://terminology.hl7.org/CodeSystem/usage-context-",
    "code": "gender",
    "display": "Gender"
  },
  "valueCodeableConcept":
  {
    "coding":
    [
      {
        "system": "http://hl7.org/fhir/administrative-gender",
        "code": "female",
        "display": "Female"
      }
    ],
    "text": "Female"
  }
},
{
  "code":
  {
    "system": "http://terminology.hl7.org/CodeSystem/usage-context-",
    "code": "age",
    "display": "Age Range"
  },
  "valueCodeableConcept":
  {
    "coding":
    [
      {
        "system": "https://openimis.github.io/openimis_fhir_r4_",
        "code": "adult",
        "display": "Adult"
      },
      {
        "system": "https://openimis.github.io/openimis_fhir_r4_",
        "code": "child",
        "display": "Child"
      }
    ],
    "text": "Adult or Child"
  }
},
{
  "code":
  {
    "system": "http://terminology.hl7.org/CodeSystem/usage-context-",
    "code": "workflow",
    "display": "Workflow Setting"
  },
  "valueCodeableConcept":
  {
    "coding":
    [
      {
        "system": "https://openimis.github.io/openimis_fhir_r4_",
        "code": "S",

```

```

        "display": "Surgery"
      }
    ],
    "text": "Surgery"
  }
},
{
  "code":
  {
    "system": "http://terminology.hl7.org/CodeSystem/usage-context-",
    "code": "venue",
    "display": "Clinical Venue"
  },
  "valueCodeableConcept":
  {
    "coding":
    [
      {
        "system": "http://terminology.hl7.org/2.1.0/CodeSystem-",
        "code": "AMB",
        "display": "ambulatory"
      },
      {
        "system": "http://terminology.hl7.org/2.1.0/CodeSystem-",
        "code": "IMP",
        "display": "IMP"
      }
    ],
    "text": "ambulatory or IMP"
  }
}
],
"topic":
[
  {
    "coding":
    [
      {
        "system": "https://openimis.github.io/openimis_fhir_r4_ig/C",
        "code": "C",
        "display": "Curative"
      }
    ]
  }
],
"timingTiming":
{
  "repeat":
  {
    "frequency": 1,
    "period": 0.0,
    "periodUnit": "d"
  }
}
}
]
}

```


Diagnosis

```
{
  "resourceType": "CodeSystem",
  "id": "diagnosis-ICD10-level1",
  "url": "https://demo.openimis.org/api/api_fhir_r4/CodeSystem/diagnosis/",
  "name": "DiagnosisICD10Level1CS",
  "title": "ICD 10 Level 1 diagnosis (Claim)",
  "status": "active",
  "date": "2023-05-19T08:04:59.574280",
  "description": "The actual list of diagnosis configured in openIMIS.",
  "content": "complete",
  "count": 1910,
  "concept":
  [
    {
      "code": "A00",
      "display": "Cholera"
    },
    {
      "code": "A01",
      "display": "Typhoid and paratyphoid fevers"
    }
  ]
}
```

Items or Medications

```
{
  "resourceType": "Bundle",
  "type": "searchset",
  "total": 257,
  "link":
  [
    {
      "relation": "self",
      "url": "https%3A%2F%2Fdemo.openimis.org%2Fapi%2Fapi_fhir_r4%2FMedication%2F"
    },
    {
      "relation": "next",
      "url": "https%3A%2F%2Fdemo.openimis.org%2Fapi%2Fapi_fhir_r4%2FMedication%2F%3Fp"
    }
  ],
  "entry":
  [
    {
      "fullUrl": "https://demo.openimis.org/api/api_fhir_r4/Medication/995CA442-FC47-4F1F-9277-9163932ABB78",
      "resource":
      {
        "resourceType": "Medication",
        "id": "995CA442-FC47-4F1F-9277-9163932ABB78",
        "extension":
        [
          {
            "url": "https://openimis.github.io/openimis_fhir_r4_ig/CodeSystem/u",
            "valueMoney":
            {
              "value": 10.0,
            }
          }
        ]
      }
    }
  ]
}
```

```

        "currency": "$"
    }
},
{
    "url": "https://openimis.github.io/openimis_fhir_r4_ig/StructureDef
    "valueCodeableConcept":
    {
        "coding":
        [
            {
                "system": "https://openimis.github.io/openimis_fhir_r4_
                "code": "D",
                "display": "Drug"
            }
        ]
    }
},
{
    "extension":
    [
        {
            "url": "Gender",
            "valueUsageContext":
            {
                "code":
                {
                    "system": "http://terminology.hl7.org/CodeSystem/us
                    "code": "gender",
                    "display": "Gender"
                },
                "valueCodeableConcept":
                {
                    "coding":
                    [
                        {
                            "system": "http://hl7.org/fhir/administrati
                            "code": "male",
                            "display": "Male"
                        },
                        {
                            "system": "http://hl7.org/fhir/administrati
                            "code": "female",
                            "display": "Female"
                        }
                    ]
                }
            }
        },
        {
            "url": "Age",
            "valueUsageContext":
            {
                "code":
                {
                    "system": "http://terminology.hl7.org/CodeSystem/us
                    "code": "age",
                    "display": "Age"
                },
                "valueCodeableConcept":

```

```

        {
            "coding":
            [
                {
                    "system": "https://openimis.github.io/openi
                    "code": "adult",
                    "display": "Adult"
                },
                {
                    "system": "https://openimis.github.io/openi
                    "code": "child",
                    "display": "Child"
                }
            ]
        }
    },
    {
        "url": "CareType",
        "valueUsageContext":
        {
            "code":
            {
                "system": "http://terminology.hl7.org/CodeSystem/us
                "code": "venue",
                "display": "Clinical Venue"
            },
            "valueCodeableConcept":
            {
                "coding":
                [
                    {
                        "system": "http://terminology.hl7.org/CodeS
                        "code": "AMB",
                        "display": "ambulatory"
                    }
                ]
            }
        }
    },
    ],
    "url": "https://openimis.github.io/openimis_fhir_r4_ig/StructureDef
},
{
    "url": "https://openimis.github.io/openimis_fhir_r4_ig/StructureDef
    "valueCodeableConcept":
    {
        "coding":
        [
            {
                "system": "https://openimis.github.io/openimis_fhir_r4_
                "code": "M",
                "display": "Medication"
            }
        ],
        "text": "Medication"
    }
}
],

```

```

"identifier":
[
  {
    "type":
    {
      "coding":
      [
        {
          "system": "https://openimis.github.io/openimis_fhir_r4_
          "code": "UUID"
        }
      ]
    },
    "value": "995CA442-FC47-4F1F-9277-9163932ABB78"
  },
  {
    "type":
    {
      "coding":
      [
        {
          "system": "https://openimis.github.io/openimis_fhir_r4_
          "code": "Code"
        }
      ]
    },
    "value": "0001"
  }
],
"code":
{
  "text": "ACETYLSALICYLIC ACID (ASPIRIN) TABS 300MG"
},
"status": "active",
"form":
{
  "text": "1000 TABLETS"
},
"amount":
{
  "numerator":
  {
    "value": 1000.0
  }
}
}
]
}

```

References

Wiki pages:

- [Medication](#)
- [Activity Definition](#)

FHIR Doc:

- [Medication](#)

- [Activity Definition](#)
- [Code System - Diagnosis](#)

Mapping

We can do the following mapping:

C# REST API	FHIR API
.diagnoses[0].code	Diagnosis - .concept[0].code
.diagnoses[0].name	Diagnosis - .concept[0].display
.services[0].code	ActivityDefinition - .entry[0].resource.identifier[] select(.type.coding[].code == "Code").value
.services[0].name	ActivityDefinition - .entry[0].title
.services[0].price	ActivityDefinition - .entry[0].resource.extension[] select(.url test("unit-price")).valueMoney.value
.items[0].code	Medication - .entry[0].resource.identifier[] select(.type.coding[].code == "Code").value
.items[0].name	Medication - .entry[0].resource.code.text
.items[0].price	Medication - .entry[0].resource.extension[] select(.url test("unit-price")).valueMoney.value

Payment List

C# REST API

It's a POST HTTP request at `/rest/api/claim/GetClaimAdmins` with:

```
{
  "claim_administrator_code": "VIHC0011",
  "last_update_date": "2000-01-01"
}
```

It returns a JSON payload:

```
{
  "update_since_last": "2023-05-17T12:46:58.4881875Z",
  "health_facility_code": "VIHC001",
  "health_facility_name": "Juilöa Health Centre",
  "pricelist_services":
  [
    {
      "code": "A1",
      "name": "General Consultation",
      "price": "400.00"
    }
  ],
  "pricelist_items":
  [
    {
      "code": "0001",
      "name": "ACETYLSALICYLIC ACID (ASPIRIN) TABS 300MG",
      "price": "10.00"
    }
  ]
}
```

FHIR API

See above [Diagnoses, Items, and Services](#).

There is also one GET HTTP request at `/api/api_fhir_r4/organization/`. It returns the list of organizations (or health facilities):

```
{
  "resourceType": "Bundle",
  "type": "searchset",
  "total": 16,
  "link":
  [
    {
      "relation": "self",
      "url": "https%3A%2F%2Fdemo.openimis.org%2Fapi%2Fapi_fhir_r4%2F0rganization%2F"
    },
    {
      "relation": "next",
      "url": "https%3A%2F%2Fdemo.openimis.org%2Fapi%2Fapi_fhir_r4%2F0rganization%2F%3"
    }
  ],
  "entry":
  [
    {
      "fullUrl": "https://demo.openimis.org/api/api_fhir_r4/organization/3134931E-945D-4A19-8166-13BA7B8D9F20",
      "resource":
      {
        "resourceType": "Organization",
        "id": "3134931E-945D-4A19-8166-13BA7B8D9F20",
        "extension":
        [
          {
            "url": "https://openimis.github.io/openimis_fhir_r4_ig/StructureDefinition/organization-legal-form",
            "valueCodeableConcept":
            {
              "coding":
              [
                {
                  "system": "CodeSystem/organization-legal-form",
                  "code": "G",
                  "display": "Government"
                }
              ]
            }
          },
          {
            "url": "https://openimis.github.io/openimis_fhir_r4_ig/StructureDefinition/organization-health-centre",
            "valueCodeableConcept":
            {
              "coding":
              [
                {
                  "system": "https://openimis.github.io/openimis_fhir_r4_ig/CodeSystem/organization-health-centre",
                  "code": "C",
                  "display": "Health Centre"
                }
              ]
            }
          }
        ]
      }
    }
  ],
}
```

```

    {
      "url": "https://openimis.github.io/openimis_fhir_r4_ig/StructureDef
      "valueCodeableConcept":
        {
          "coding":
            [
              {
                "system": "https://openimis.github.io/openimis_fhir_r4_
                "code": "0",
                "display": "Out-patient"
              }
            ]
        }
    },
    "identifier":
    [
      {
        "type":
          {
            "coding":
              [
                {
                  "system": "https://openimis.github.io/openimis_fhir_r4_
                  "code": "UUID"
                }
              ]
          },
        "value": "3134931E-945D-4A19-8166-13BA7B8D9F20"
      },
      {
        "type":
          {
            "coding":
              [
                {
                  "system": "https://openimis.github.io/openimis_fhir_r4_
                  "code": "Code"
                }
              ]
          },
        "value": "VIHC001"
      }
    ],
    "type":
    [
      {
        "coding":
          [
            {
              "code": "prov"
            }
          ]
      }
    ],
    "name": "Juilöa Health Centre",
    "address":
    [
      {

```

```

"extension":
[
  {
    "url": "https://openimis.github.io/openimis_fhir_r4_ig//Str
    "valueReference":
    {
      "reference": "Organization/3134931E-945D-4A19-8166-13BA
      "type": "Organization",
      "identifier":
      {
        "type":
        {
          "coding":
          [
            {
              "system": "https://openimis.github.io/o
              "code": "UUID"
            }
          ]
        },
        "value": "3134931E-945D-4A19-8166-13BA7B8D9F20"
      }
    }
  ],
  "type": "physical",
  "line":
  [
    "Guazn Health Centre"
  ],
  "district": "Vida",
  "state": "Tahida"
}
],
"contact":
[
  {
    "purpose":
    {
      "coding":
      [
        {
          "system": "http://terminology.hl7.org/CodeSystem/contac
          "code": "PAYOR"
        }
      ]
    },
    "name":
    {
      "use": "usual",
      "family": "Louios",
      "given":
      [
        "Ioulo"
      ]
    }
  }
]
}

```



```
    }
  ]
}
```

References

[FHIR Doc](#)

Mapping

When you can find the price for each service (Activity Definition) and each item (Medication), and the details of a health facility (Organization), it seems there isn't any way to retrieve a filtered list of services (Activity Definition) and items (Medication) for a given health facility (Organization)

Claims (list)

C# REST API

It's a POST HTTP request at `/rest/api/claim/GetClaims` with:

```
{
  "claim_administrator_code": "VIHC0011",
  "status_claim": "Entered",
  "visit_date_from": "2000-01-01",
  "visit_date_to": "2023-05-08",
  "processed_date_from": "2000-01-01",
  "processed_date_to": "2023-05-08"
}
```

```
{
  "error_occured": false,
  "data":
  [
    {
      "claim_uuid": "3aa4f381-d1b5-49aa-8872-08d5d06834f2",
      "health_facility_code": "VIHC001",
      "health_facility_name": "Juilöa Health Centre",
      "insurance_number": "105000002",
      "patient_name": "Ilina Doni",
      "main_dg": "Cholera",
      "claim_number": "CIB00001",
      "date_claimed": "2022-09-22",
      "visit_date_from": "2022-09-22",
      "visit_type": "Others",
      "claim_status": "Entered",
      "sec_dg_1": "Typhoid and paratyphoid fevers",
      "sec_dg_2": null,
      "sec_dg_3": null,
      "sec_dg_4": null,
      "visit_date_to": "2022-09-22",
      "claimed": 1000.0000,
      "approved": 1000.0000,
      "adjusted": 0.00,
      "explanation": "",
      "adjustment": null,
      "guarantee_number": "",
      "services":
      [
        {
          "claim_uuid": "3aa4f381-d1b5-49aa-8872-08d5d06834f2",
```

```

        "claim_number": "CIB00001",
        "service": " BLOOD SLIDE FOR MALARIAL PARASITES (BS FOR MPS)",
        "service_code": "I26",
        "service_qty": 1.00,
        "service_price": 800.00,
        "service_adjusted_qty": null,
        "service_adjusted_price": null,
        "service_explanation": "",
        "service_justificaion": null,
        "service_valuated": null,
        "service_result": "0"
    }
],
"items":
[
    {
        "claim_uuid": "3aa4f381-d1b5-49aa-8872-08d5d06834f2",
        "claim_number": "CIB00001",
        "item": "PARACETAMOL TABS 500 MG",
        "item_code": "0182",
        "item_qty": 20.00,
        "item_price": 10.00,
        "item_adjusted_qty": null,
        "item_adjusted_price": null,
        "item_explanation": "",
        "item_justificaion": null,
        "item_valuated": null,
        "item_result": "0"
    }
]
}
]
}

```

FHIR API

It's a GET HTTP request at `/api/api_fhir_r4/ClaimResponse/` . It returns a list of claims:

```

{
  "resourceType": "Bundle",
  "type": "searchset",
  "total": 11,
  "link":
  [
    {
      "relation": "self",
      "url": "https%3A%2F%2Fdemo.openimis.org%2Fapi%2Fapi_fhir_r4%2FClaimResponse%2F%"
    },
    {
      "relation": "next",
      "url": "https%3A%2F%2Fdemo.openimis.org%2Fapi%2Fapi_fhir_r4%2FClaimResponse%2F%"
    }
  ],
  "entry":
  [
    {
      "fullUrl": "https://demo.openimis.org/api/api_fhir_r4/ClaimResponse/3AA4F381-D1"
      "resource":
    }
  ]
}

```

```

{
  "resourceType": "ClaimResponse",
  "id": "3AA4F381-D1B5-49AA-8872-08D5D06834F2",
  "identifier":
  [
    {
      "type":
      {
        "coding":
        [
          {
            "system": "https://openimis.github.io/openimis_fhir_r4_
            "code": "UUID"
          }
        ]
      },
      "value": "3AA4F381-D1B5-49AA-8872-08D5D06834F2"
    },
    {
      "type":
      {
        "coding":
        [
          {
            "system": "https://openimis.github.io/openimis_fhir_r4_
            "code": "Code"
          }
        ]
      },
      "value": "CIB00001"
    }
  ],
  "status": "active",
  "type":
  {
    "coding":
    [
      {
        "system": "https://openimis.github.io/openimis_fhir_r4_ig/CodeS
        "code": "0",
        "display": "Other"
      }
    ]
  },
  "use": "claim",
  "patient":
  {
    "reference": "Patient/1749F4F9-9B75-49E6-9894-2BA5F2B45C49",
    "type": "Patient",
    "identifier":
    {
      "type":
      {
        "coding":
        [
          {
            "system": "https://openimis.github.io/openimis_fhir_r4_
            "code": "UUID"
          }
        ]
      }
    }
  }
}

```

```
        ]
      },
      "value": "1749F4F9-9B75-49E6-9894-2BA5F2B45C49"
    }
  },
  "created": "2023-05-19",
  "insurer":
  {
    "reference": "openIMIS"
  },
  "requestor":
  {
    "reference": "Practitioner/39D399C3-32A1-4CF7-9B2C-FC334567256C",
    "type": "Practitioner",
    "identifier":
    {
      "type":
      {
        "coding":
        [
          {
            "system": "https://openimis.github.io/openimis_fhir_r4_
            "code": "UUID"
          }
        ]
      },
      "value": "39D399C3-32A1-4CF7-9B2C-FC334567256C"
    }
  },
  "request":
  {
    "reference": "ClaimV2/3AA4F381-D1B5-49AA-8872-08D5D06834F2",
    "type": "ClaimV2",
    "identifier":
    {
      "type":
      {
        "coding":
        [
          {
            "system": "https://openimis.github.io/openimis_fhir_r4_
            "code": "UUID"
          }
        ]
      },
      "value": "3AA4F381-D1B5-49AA-8872-08D5D06834F2"
    }
  },
  "outcome": "queued",
  "item":
  [
    {
      "extension":
      [
        {
          "url": "https://openimis.github.io/openimis_fhir_r4_ig/Stru
          "valueReference":
          {
            "reference": "Medication/10E8D40C-8C84-43A2-BC36-52C5F8
```

```

        "type": "Medication",
        "identifier":
        {
            "type":
            {
                "coding":
                [
                    {
                        "system": "https://openimis.github.io/o
                        "code": "UUID"
                    }
                ]
            },
            "value": "10E8D40C-8C84-43A2-BC36-52C5F8197232"
        },
        "display": "0182"
    }
}
],
"itemSequence": 1,
"adjudication":
[
    {
        "category":
        {
            "coding":
            [
                {
                    "system": "https://openimis.github.io/openimis_
                    "code": "2",
                    "display": "entered"
                }
            ]
        },
        "reason":
        {
            "coding":
            [
                {
                    "system": "https://openimis.github.io/openimis_
                    "code": "0",
                    "display": "ACCEPTED"
                }
            ]
        },
        "amount":
        {
            "value": 10.0,
            "currency": "$"
        },
        "value": 20.0
    }
]
},
{
    "extension":
    [
        {
            "url": "https://openimis.github.io/openimis_fhir_r4_ig/Stru

```

```

"valueReference":
{
  "reference": "ActivityDefinition/5D392BD5-2A26-4AE8-87F
"type": "ActivityDefinition",
"identifier":
{
  "type":
  {
    "coding":
    [
      {
        "system": "https://openimis.github.io/o
"code": "UUID"
      }
    ]
  },
  "value": "5D392BD5-2A26-4AE8-87F6-96499CCADAD9"
},
"display": "I26"
}
}
],
"itemSequence": 2,
"adjudication":
[
  {
    "category":
    {
      "coding":
      [
        {
          "system": "https://openimis.github.io/openimis_
"code": "2",
"display": "entered"
        }
      ]
    },
    "reason":
    {
      "coding":
      [
        {
          "system": "https://openimis.github.io/openimis_
"code": "0",
"display": "ACCEPTED"
        }
      ]
    },
    "amount":
    {
      "value": 800.0,
      "currency": "$"
    },
    "value": 1.0
  }
]
}
],
"total":

```

```

    [
      {
        "category":
        {
          "coding":
          [
            {
              "system": "https://openimis.github.io/openimis_fhir_r4_
              "code": "2",
              "display": "entered"
            }
          ]
        },
        "amount":
        {
          "value": 1000.0,
          "currency": "$"
        }
      }
    ]
  }
}
]
}

```

Mapping

We can do the following mapping:

C# REST API	FHIR API
.data[0].claim_uuid	.entry[0].resource.id
.data[0].health_facility_code	None (maybe through the practitioner)
.data[0].health_facility_name	None (maybe through the practitioner)
.data[0].insurance_number	None (maybe through patient link .entry[0].resource.patient.reference)
.data[0].patient_name	None (maybe through patient link .entry[0].resource.patient.reference)
.data[0].main_dg	None
.data[0].claim_number	.entry[0].resource.identifier[] select(.type.coding[].code == "Code").value
.data[0].date_claimed	None
.data[0].visit_date_from	None
.data[0].visit_type	.entry[0].resource.type.coding[0].display
.data[0].claim_status	None
.data[0].sec_dg_1	None
.data[0].sec_dg_2	None
.data[0].sec_dg_3	None
.data[0].sec_dg_4	None
.data[0].visit_date_to	None

C# REST API	FHIR API
<code>.data[0].claimed</code>	<code>.entry[0].total[] select(.category.coding[].display == "entered").amount.value</code>
<code>.data[0].approved</code>	None (it seems it's done per item)
<code>.data[0].adjusted</code>	None
<code>.data[0].explanation</code>	None
<code>.data[0].adjustment</code>	None
<code>.data[0].guarantee_number</code>	None
<code>.data[0].services</code>	<code>.entry[0].item[] select(.extension[].valueReference.display == "I26")</code>
	the link with the service is done via the Activity Definition <code>.reference</code>
	the quantity, price, and status can be found in <code>.adjudication</code>
<code>.data[0].items</code>	<code>.entry[0].item[] select(.extension[].valueReference.display == "0182")</code>
	the link with the service is done via the Medication <code>.reference</code>
	the quantity, price, and status can be found in <code>.adjudication</code>

However, we get the all list of claims. It's not known if it's possible to filter it for a given claim administrator (Practitioner) or health facility (Organization).

Considering PractitionerRole (see below), it is possible to do the link and filter it at the client side. Now the module might filter it based on the authenticated user. This is something to check.

PractitionerRole (FHIR API)

It's a GET request at `/api/api_fhir_r4/PractitionerRole/`. It returns the following json payload:

```
{
  "resourceType": "Bundle",
  "type": "searchset",
  "total": 29,
  "link":
  [
    {
      "relation": "self",
      "url": "https%3A%2F%2Fdemo.openimis.org%2Fapi%2Fapi_fhir_r4%2FPractitionerRole%"
    },
    {
      "relation": "next",
      "url": "https%3A%2F%2Fdemo.openimis.org%2Fapi%2Fapi_fhir_r4%2FPractitionerRole%"
    }
  ],
  "entry":
  [
    {
      "fullUrl": "https://demo.openimis.org/api/api_fhir_r4/PractitionerRole/BA1FB395",
      "resource":
      {
        "resourceType": "PractitionerRole",
        "id": "BA1FB395-292E-42CB-AE3A-349293C949A3",
        "identifier":
        [

```



```
{
  "type":
  {
    "coding":
    [
      {
        "system": "https://openimis.github.io/openimis_fhir_r4_
        "code": "UUID"
      }
    ]
  },
  "value": "BA1FB395-292E-42CB-AE3A-349293C949A3"
},
{
  "type":
  {
    "coding":
    [
      {
        "system": "https://openimis.github.io/openimis_fhir_r4_
        "code": "Code"
      }
    ]
  },
  "value": "JHOS0011"
}
],
"practitioner":
{
  "reference": "Practitioner/BA1FB395-292E-42CB-AE3A-349293C949A3",
  "type": "Practitioner",
  "identifier":
  {
    "type":
    {
      "coding":
      [
        {
          "system": "https://openimis.github.io/openimis_fhir_r4_
          "code": "UUID"
        }
      ]
    },
    "value": "BA1FB395-292E-42CB-AE3A-349293C949A3"
  }
},
"organization":
{
  "reference": "Organization/A0544680-7438-440D-977D-61E85A1B0765",
  "type": "Organization",
  "identifier":
  {
    "type":
    {
      "coding":
      [
        {
          "system": "https://openimis.github.io/openimis_fhir_r4_
          "code": "UUID"
        }
      ]
    }
  }
}
```

```

        }
      ]
    },
    "value": "A0544680-7438-440D-977D-61E85A1B0765"
  }
},
"code":
[
  {
    "coding":
    [
      {
        "system": "https://openimis.github.io/openimis_fhir_r4_ig/C",
        "code": "CA",
        "display": "Claim Administrator"
      }
    ]
  }
]
},
},
]
}

```

Enquire (list)

C# REST API

It's a GET HTTP request at `/rest/api/insuree/${insuree_chfid}/enquire`. It returns a JSON payload that contains the enquire for the given insuree:

```

{
  "details":
  [
    {
      "productName": "Basic Cover Tahida",
      "expiryDate": "2024-04-19",
      "status": "A",
      "dedType": null,
      "ded1": null,
      "ded2": null,
      "ceiling1": null,
      "ceiling2": null,
      "productCode": "BCTA0001",
      "antenatalAmountLeft": null,
      "consultationAmountLeft": null,
      "deliveryAmountLeft": null,
      "hospitalizationAmountLeft": null,
      "surgeryAmountLeft": null,
      "totalAdmissionsLeft": null,
      "totalAntenatalLeft": null,
      "totalConsultationsLeft": null,
      "totalDelivieriesLeft": null,
      "totalSurgeriesLeft": null,
      "totalVisitsLeft": null,
      "policyValue": 10000.00,
      "effectiveDate": "2023-04-20"
    }
  ],

```

```

"chfid": "105000002",
"photoPath": "Images/Updated/105000002_E00001_20180327_0.0_0.0.jpg",
"insureeName": "Doni Ilina",
"dob": "1993-06-09",
"gender": "Female",
"photoBase64": "",
"otherNames": "Doni",
"lastName": "Ilina"
}

```

FHIR API

There are 3 resources to call: Patient, Contract, and Coverage.

To retrieve the list of patient, it's GET HTTP request at `/api/api_fhir_r4/Patient`. It returns a list:

```

[
  {
    "fullUrl": "https://demo.openimis.org/api/api_fhir_r4/Patient/EDB3F97F-DBCF-4824-B0DD-41F339D857EC",
    "resource": {
      "resourceType": "Patient",
      "id": "EDB3F97F-DBCF-4824-B0DD-41F339D857EC",
      "extension": [
        {
          "url": "https://openimis.github.io/openimis_fhir_r4_ig/StructureDefinition/boolean",
          "valueBoolean": true
        },
        {
          "url": "https://openimis.github.io/openimis_fhir_r4_ig/StructureDefinition/false",
          "valueBoolean": false
        },
        {
          "url": "https://openimis.github.io/openimis_fhir_r4_ig/StructureDefinition/reference",
          "valueReference": {
            "reference": "Group/0AE6EED8-9353-42E0-B779-B044A692CB22",
            "type": "Group",
            "identifier": {
              "type": {
                "coding": [
                  {
                    "system": "https://openimis.github.io/openimis_fhir_r4_ig/StructureDefinition/uuid",
                    "code": "UUID"
                  }
                ]
              },
              "value": "0AE6EED8-9353-42E0-B779-B044A692CB22"
            }
          }
        }
      ]
    },
    "identifier": [

```

```
{
  "type":
  {
    "coding":
    [
      {
        "system": "https://openimis.github.io/openimis_fhir_r4_ig/C
        "code": "UUID"
      }
    ]
  },
  "value": "EDB3F97F-DBCF-4824-B0DD-41F339D857EC"
},
{
  "type":
  {
    "coding":
    [
      {
        "system": "https://openimis.github.io/openimis_fhir_r4_ig/C
        "code": "Code"
      }
    ]
  },
  "value": "10500001"
}
],
"name":
[
  {
    "use": "usual",
    "family": "Ilina",
    "given":
    [
      "Ethu"
    ]
  }
],
"telecom":
[
  {
    "system": "email",
    "value": "
    "use": "home"
  }
],
"gender": "female",
"birthDate": "1988-07-10",
"address":
[
  {
    "extension":
    [
      {
        "url": "https://openimis.github.io/openimis_fhir_r4_ig/Structur
        "valueString": "Majhi"
      },
      {
        "url": "https://openimis.github.io/openimis_fhir_r4_ig/Structur
```

```

        "valueReference":
        {
            "reference": "Location/FCEFC704-229F-4561-A8A8-590A01523BE3",
            "type": "Location",
            "identifier":
            {
                "type":
                {
                    "coding":
                    [
                        {
                            "system": "https://openimis.github.io/openi",
                            "code": "UUID"
                        }
                    ]
                },
                "value": "FCEFC704-229F-4561-A8A8-590A01523BE3"
            }
        }
    ],
    "use": "home",
    "type": "physical",
    "city": "Radho",
    "district": "Vida",
    "state": "Tahida"
}
],
"photo":
[
    {
        "contentType": "jpg",
        "url": "http://demo.openimis.org/photo/Images/Updated//10500001_E00001_20180327_0.0_0.0.jpg",
        "title": "10500001_E00001_20180327_0.0_0.0.jpg",
        "creation": "2018-03-27"
    }
]
},
{
    "fullUrl": "https://demo.openimis.org/api/api_fhir_r4/Patient/CAA21A5-42A3-4BC0-9D",
    "resource":
    {
        "resourceType": "Patient",
        "id": "CAA21A5-42A3-4BC0-9DA2-E7951B283307",
        "extension":
        [
            {
                "url": "https://openimis.github.io/openimis_fhir_r4_ig/StructureDefinit",
                "valueBoolean": false
            },
            {
                "url": "https://openimis.github.io/openimis_fhir_r4_ig/StructureDefinit",
                "valueBoolean": false
            },
            {
                "url": "https://openimis.github.io/openimis_fhir_r4_ig/StructureDefinit",
                "valueReference":
            }
        ]
    }
}

```

```

    {
      "reference": "Group/0AE6EED8-9353-42E0-B779-B044A692CB22",
      "type": "Group",
      "identifier":
      {
        "type":
        {
          "coding":
          [
            {
              "system": "https://openimis.github.io/openimis_fhir
              "code": "UUID"
            }
          ]
        },
        "value": "0AE6EED8-9353-42E0-B779-B044A692CB22"
      }
    }
  ],
  "identifier":
  [
    {
      "type":
      {
        "coding":
        [
          {
            "system": "https://openimis.github.io/openimis_fhir_r4_ig/C
            "code": "UUID"
          }
        ]
      },
      "value": "CAA21A5-42A3-4BC0-9DA2-E7951B283307"
    },
    {
      "type":
      {
        "coding":
        [
          {
            "system": "https://openimis.github.io/openimis_fhir_r4_ig/C
            "code": "Code"
          }
        ]
      },
      "value": "105000002"
    }
  ],
  "name":
  [
    {
      "use": "usual",
      "family": "Ilina",
      "given":
      [
        "Doni"
      ]
    }
  ]
}

```

```

    ],
    "gender": "female",
    "birthDate": "1993-06-09",
    "address":
    [
      {
        "extension":
        [
          {
            "url": "https://openimis.github.io/openimis_fhir_r4_ig/Structur
            "valueString": "Majhi"
          },
          {
            "url": "https://openimis.github.io/openimis_fhir_r4_ig/Structur
            "valueReference":
            {
              "reference": "Location/FCEFC704-229F-4561-A8A8-590A01523BE3
              "type": "Location",
              "identifier":
              {
                "type":
                {
                  "coding":
                  [
                    {
                      "system": "https://openimis.github.io/openi
                      "code": "UUID"
                    }
                  ]
                },
                "value": "FCEFC704-229F-4561-A8A8-590A01523BE3"
              }
            }
          }
        ],
        "use": "home",
        "type": "physical",
        "city": "Radho",
        "district": "Vida",
        "state": "Tahida"
      }
    ],
    "photo":
    [
      {
        "contentType": "jpg",
        "url": "http://demo.openimis.org/photo/Images/Updated//105000002_E00001
        "title": "105000002_E00001_20180327_0.0_0.0.jpg",
        "creation": "2018-03-27"
      }
    ]
  }
}
]

```

To retrieve the list of contract, it's GET HTTP request at `/api/api_fhir_r4/Contract` . It returns a list:

```
{
  "resource":
  {
    "resourceType": "Contract",
    "identifier":
    [
      {
        "type":
        {
          "coding":
          [
            {
              "system": "https://openimis.github.io/openimis_fhir_r4_ig/CodeS
              "code": "UUID"
            }
          ]
        },
        "value": "D593E2B6-449A-42B6-A4FC-FEAED7026696"
      },
      {
        "type":
        {
          "coding":
          [
            {
              "system": "https://openimis.github.io/openimis_fhir_r4_ig/CodeS
              "code": "ACSN"
            }
          ]
        },
        "value": "32"
      }
    ],
    "status": "Policy",
    "legalState":
    {
      "text": "Offered"
    },
    "subject":
    [
      {
        "reference": "Group/0AE6EED8-9353-42E0-B779-B044A692CB22",
        "type": "Group",
        "identifier":
        {
          "type":
          {
            "coding":
            [
              {
                "system": "https://openimis.github.io/openimis_fhir_r4_ig/C
                "code": "UUID"
              }
            ]
          },
          "value": "0AE6EED8-9353-42E0-B779-B044A692CB22"
        },
        "display": "Irina"
      }
    ]
  }
}
```



```

    }
  ],
  "author":
  {
    "reference": "Practitioner/5739BC5A-2956-434A-81A9-6D7B6E24D101",
    "type": "Practitioner",
    "identifier":
    {
      "type":
      {
        "coding":
        [
          {
            "system": "https://openimis.github.io/openimis_fhir_r4_ig/CodeS
            "code": "UUID"
          }
        ]
      },
      "value": "5739BC5A-2956-434A-81A9-6D7B6E24D101"
    },
    "display": "E00006"
  },
  "scope":
  {
    "coding":
    [
      {
        "system": "https://openimis.github.io/openimis_fhir_r4_ig/CodeSystem/co
        "code": "informal",
        "display": "Informal Sector"
      }
    ]
  },
  "term":
  [
    {
      "offer":
      {
        "party":
        [
          {
            "reference":
            [
              {
                "reference": "Patient/EDB3F97F-DBCF-4824-B0DD-41F339D85
                "type": "Patient",
                "identifier":
                {
                  "type":
                  {
                    "coding":
                    [
                      {
                        "system": "https://openimis.github.io/o
                        "code": "UUID"
                      }
                    ]
                  },
                  "value": "EDB3F97F-DBCF-4824-B0DD-41F339D857EC"
                }
              }
            ]
          }
        ]
      }
    }
  ]

```

```

        }
      },
      "role":
      {
        "coding":
        [
          {
            "system": "https://openimis.github.io/openimis_fhir",
            "code": "beneficiary",
            "display": "Beneficiary"
          }
        ]
      }
    ]
  },
  "asset":
  [
    {
      "extension":
      [
        {
          "extension":
          [
            {
              "url": "payer",
              "valueCodeableConcept":
              {
                "coding":
                [
                  {
                    "system": "https://openimis.github.io/o",
                    "code": "beneficiary",
                    "display": "Beneficiary"
                  }
                ]
              }
            },
            {
              "url": "category",
              "valueCodeableConcept":
              {
                "coding":
                [
                  {
                    "system": "https://openimis.github.io/o",
                    "code": "C",
                    "display": "Contribution and Others"
                  }
                ]
              }
            }
          ],
          "url": "amount",
          "valueMoney":
          {
            "value": 10000.0,
            "currency": "$"
          }
        }
      ]
    }
  ]
}

```

```

    }
  },
  {
    "url": "receipt",
    "valueString": "RE6252"
  },
  {
    "url": "date",
    "valueDate": "2023-05-20"
  },
  {
    "url": "type",
    "valueCodeableConcept":
    {
      "coding":
      [
        {
          "system": "https://openimis.github.io/o
          "code": "C",
          "display": "Cash"
        }
      ]
    }
  }
],
"url": "https://openimis.github.io/openimis_fhir_r4_ig/Stru
}
],
"typeReference":
[
  {
    "reference": "Patient/EDB3F97F-DBCF-4824-B0DD-41F339D857EC"
    "type": "Patient",
    "identifier":
    {
      "type":
      {
        "coding":
        [
          {
            "system": "https://openimis.github.io/openi
            "code": "UUID"
          }
        ]
      },
      "value": "EDB3F97F-DBCF-4824-B0DD-41F339D857EC"
    },
    "display": "10500001"
  },
  {
    "reference": "Patient/CAA21A5-42A3-4BC0-9DA2-E7951B283307"
    "type": "Patient",
    "identifier":
    {
      "type":
      {
        "coding":
        [
          {

```

```
        "system": "https://openimis.github.io/openi
        "code": "UUID"
    }
    ]
    },
    "value": "CAA21A5-42A3-4BC0-9DA2-E7951B283307"
},
"display": "105000002"
}
],
"period":
[
    {
        "start": "2023-05-20",
        "end": "2024-05-19"
    }
],
"usePeriod":
[
    {
        "start": "2023-05-20",
        "end": "2024-05-19"
    }
],
"valuedItem":
[
    {
        "entityReference":
        {
            "reference": "InsurancePlan/C536D810-B66F-4ECC-B97F-BD0
            "type": "InsurancePlan",
            "identifier":
            {
                "type":
                {
                    "coding":
                    [
                        {
                            "system": "https://openimis.github.io/o
                            "code": "UUID"
                        }
                    ]
                },
                "value": "C536D810-B66F-4ECC-B97F-BD004DACD108"
            },
            "display": "BCTA0001"
        },
        "net":
        {
            "value": 10000.0
        }
    }
]
}
]
}
}
}
```

To retrieve the list of coverage, it's GET HTTP request at `/api/api_fhir_r4/Coverage` . It returns a list:

```
{
  "resource":
  {
    "resourceType": "Coverage",
    "extension":
    [
      {
        "url": "https://openimis.github.io/openimis_fhir_r4_ig//StructureDefinition",
        "valueDate": "2023-05-20"
      },
      {
        "url": "https://openimis.github.io/openimis_fhir_r4_ig//StructureDefinition",
        "valueDate": "2023-05-20"
      }
    ],
    "identifier":
    [
      {
        "type":
        {
          "coding":
          [
            {
              "system": "https://openimis.github.io/openimis_fhir_r4_ig/CodeS",
              "code": "UUID"
            }
          ]
        },
        "value": "D593E2B6-449A-42B6-A4FC-FEAED7026696"
      },
      {
        "type":
        {
          "coding":
          [
            {
              "system": "https://openimis.github.io/openimis_fhir_r4_ig/CodeS",
              "code": "ACSN"
            }
          ]
        },
        "value": "32"
      }
    ],
    "status": "active",
    "policyHolder":
    {
      "reference": "Patient/10500001"
    },
    "beneficiary":
    {
      "reference": "Patient/10500001"
    },
    "period":
    {
      "start": "2023-05-20",
```

```

        "end": "2024-05-19"
      },
      "payor":
      [
        {
          "reference": "Patient/10500001"
        }
      ],
      "class":
      [
        {
          "type":
          {
            "coding":
            [
              {
                "system": "http://terminology.hl7.org/CodeSystem/coverage-class",
                "code": "plan",
                "display": "Plan"
              }
            ]
          },
          "value": "BCTA0001",
          "name": "Basic Cover Tahida"
        }
      ]
    }
  }
}

```

Mapping

C# REST API	FHIR API
.details[0].productName	Coverage .entry[0].resource.class[0].name
.details[0].productCode	Coverage .entry[0].resource.class[0].value & Contract (in .asset)
.details[0].expiryDate	Coverage .entry[0].resource.period.end & Contract (but one month later, so probably a bug)
.details[0].effectiveDate	Coverage .entry[0].resource.period.start & Contract (but one month later, so probably a bug)
.details[0].status	Coverage .entry[0].resource.status (to confirm, not sure)
.details[0].policyValue	Contract in .asset there is a .valueMoney
.details[0].dedType	not found so far
.details[0].ded1	not found so far
.details[0].ded2	not found so far
.details[0].ceiling1	not found so far
.details[0].ceiling2	not found so far
.details[0].productCode	not found so far
.details[0].antenatalAmountLeft	not found so far
.details[0].consultationAmountLeft	not found so far

C# REST API	FHIR API
<code>.details[0].deliveryAmountLeft</code>	not found so far
<code>.details[0].hospitalizationAmountLeft</code>	not found so far
<code>.details[0].surgeryAmountLeft</code>	not found so far
<code>.details[0].totalAdmissionsLeft</code>	not found so far
<code>.details[0].totalAntenatalLeft</code>	not found so far
<code>.details[0].totalConsultationsLeft</code>	not found so far
<code>.details[0].totalDelivieriesLeft</code>	not found so far
<code>.details[0].totalSurgeriesLeft</code>	not found so far
<code>.details[0].totalVisitsLeft</code>	not found so far
<code>.chfid</code>	Patient <code>.entry[0].resource.identifier</code> select(<code>.type.coding[].code == "Code"</code>) <code>.value</code> , but also in Contract in <code>.asset</code>
<code>.photoPath</code>	Patient <code>.entry[0].resource.photo[0]</code> gives you an URL and a filename
<code>.insureeName</code>	Patient <code>.entry[0].resource.name[0].family</code> and <code>.entry[0].resource.name[0].given[0]</code>
<code>.dob</code>	Patient <code>.entry[0].resource.birthDate</code>
<code>.gender</code>	Patient <code>.entry[0].resource.gender</code>
<code>.photoBase64</code>	none
<code>.otherNames</code>	Patient <code>.entry[0].resource.name[0].given[0]</code>
<code>.lastName</code>	Patient <code>.entry[0].resource.name[0].family</code>